

A FRESHER KIND OF ECO-AWARENESS

As issues of sustainability gain prominence at sea and on land, Faroese businesses and government agencies place new bets on research and development in renewable energy and clean technology.

YOU MAY FIND the freshest air, the cleanest seas, and the most unspoiled country anywhere; and you may even find the highest levels of environmental awareness that you could ever imagine. But you won't find political environmentalism in the Faroe Islands. The aggressive nature of radical activism has always been viewed with skepticism here; the Faroese despise its often inconsistent style and tell-tale signs of urban non-awareness of the natural order of things. "Let's get real," they'd say.

But make no mistake: conservation of natural resources has always, for obvious reasons, been part of the national psyche in the Faroe Islands, an unquestioned priority.

Now, with the latest wave of sustainability awareness backed by new advances in technology, the Faroese are taking unprecedented steps toward creating a greener future. Driven by environmental opportunity rather than



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propelled by politics, plans of massive investments in renewable energy are apparently supported by all political parties.

According to those plans (described in more detail elsewhere in this publication), the Faroe Islands will be a net exporter of energy in the future, powered entirely by renewable sources of energy. Studies reveal that the wind here, though frequently cursed for its relentless onslaught throughout most of the year, is extremely well suited for power generation when utilized with the latest technology.

Said Kári Mortensen, a senior energy adviser at Jarðfeingi, the Faroese Earth and Energy Directorate: "We're looking at virtually unlimited potential when it comes to wind power. Advances

in wind energy conversion technology in the last five years or so mean it's now technically and economically feasible to invest seriously in wind turbines."

And while the technology for tidal energy production has yet to mature further, scientific research of the strong ocean currents around the Faroe Islands seem to confirm that conditions are ideal for turning tidal energy into another promising source of power.

GREENER SHIPS: Meanwhile, Faroese clean technology research and innovation has spawned a new company called Decision3, whose main product is a service-solution offering that applies advanced data collection techniques to optimize ships' fuel efficiency. The prod-

Scene from the Tórshavn's East Harbour with passenger and car ferry Smyril in the foreground and Norröna on the left; wind turbine at Vestmanna (right); waves hit rocky shore (bottom left); wind turbines in southern Eysturoy (bottom right).

uct, named GreenSteam, offers a systematic way of measuring and calculating a series of parameters known to influence the vessel's fuel efficiency, recommending optimizations in real-time on a continual and regular basis.

Using a combination of consulting, hardware, and software, GreenSteam works by effectively asking the question of whether there is anything that can be changed during sailing — anything to adjust, anything that can be done under any given conditions to make the ship sail with a little more ease, or move by a few more centimeters per liter.

"Energy-wise, what happens on board a ship is anything but straightforward," said CEO and co-founder Dr. Daniel J. Jacobsen. "The main influen-



— you have to use real data to get real results."

As further explained by the GreenSteam.com website: "By 'going on board' to collect a multitude of sensor readings over a prolonged period of time, the pattern of relationships between these dynamically changing conditions and changes in fuel efficiency can be learned. When sufficient data has been collected, mathematical models are built that uncover the knowledge that is contained in the data, hidden to the naked eye. The relations between the ship's speed and consumption as well as a range of internal and external factors are learned through the use of sophisticated, specially developed software. Obtained from this is a system that is able to provide continuously updated advice on optimal settings of controls."