

The Greening of the Falkland Islands

Although most of the grass remains obstinately white in appearance, a number of schemes currently taking shape in the Falkland Islands suggest that the attitude of its government to the environment is getting ever greener.

Wind Power

Within a few short months, residents of Stanley, the Islands capital, will begin to see the construction of the country's first wind farm, small by comparison with those of other places, having only three 330 kw turbines, but still, it is hoped, capable of reducing the town's dependence on imported fuels by up to 20%.



Falkland Islands Government (FIG) Director of Public Works, Manfred Keenleyside, told *MercoPress* that the turbines, which it is hoped will be operational in April or May of 2007, are "virtually the same" as three, which have been running for around five years at the Australian Rawson Base in Antarctica and have been "well-proved".

Farms in the Falklands have benefited for a number of years from a Falkland Islands Development Corporation (FIDC) initiative to assist with the sourcing and installation of wind turbines and inverters to enable the power of the Falklands' almost constant winds to be stored for use in battery banks, thus cutting generator use and reliance on fossil fuels.

The success of this Rural Energy Scheme, which has had almost universal application among the remote farms of the Falklands, had led to sustained calls over some years for a parallel investment in wind power for Stanley, which at present relies on conventional diesel-powered generators. The problem in the past, however, as the Director of Public Works explained, was that the Falklands' winds are both strong and very variable and with a population of only around 2000 people there was not a sufficiently large grid on which to 'dump' any of the surplus power, which earlier model wind turbines would have produced in strong winds.

Mr. Keenleyside described as "brave" the decision of the Stanley Power Station Superintendent, Glenn Ross, to resist the pressure of public opinion and wait until technology had caught up with the Falklands rather unique requirements and said that the significant feature of the turbines now about to be installed in Stanley is that their output can be regulated, regardless of wind strength, thus allowing more efficient use of the wind's power.

Recycling Glass

Problems related to the small size of the Falklands population and the high cost of transporting waste materials to recycling plants in other countries have, in the past, also impeded efforts to reduce the amount of waste going to land-fill sites, but last week the FIG Public Works Committee gave approval in principle to two schemes which will, if successful, enable low-cost recycling of some waste to take place in the Falklands and result in each case in a locally useful product.

The first of the proposed schemes would see four small-sized glass Imploders situated strategically around Stanley. These compact machines work on much the same principle as the soprano shattering glasses with her high notes and were initially developed for the cruise ship industry, when the dumping of glass at sea became prohibited and the storage of empty

champagne and wine bottles presented a serious storage problem. Implosion is a mechanically induced high-speed process that creates a harmonic resonance resulting in the destruction of glass whilst rendering it sharp free.

According to a paper produced for the FIG Public Works Committee, approximately 230 tonnes of glass bottles are thrown out from Stanley's public house, restaurants and hotels every year, of which the vast majority is currently being sent to land fill, together with all the glass bottles, jars and containers included in domestic waste. Put through the Imploders the result would be a much reduced volume, down to 5% of the original and a safe and easy-to-handle sand-like material with a variety of potential local uses from bricks, blocks and concrete to golf-course bunkers.

Composting food waste

The other scheme which received the blessing of the Public works Committee and will now go on to seek approval from Executive Council, the Islands' senior legislative assembly, followed an initiative which has already proved successful in the Scottish Orkney Islands and on the Isles of Scilly, of the coast of Cornwall in England.

What is currently proposed is a simultaneous trial in thirty volunteer Falklands homes of two similar systems: the Green Cone and Green Johanna, each of which take organic household waste and turn it into high quality garden compost.

The Green Cone is a completely natural system that reduces food waste to its natural components of water, carbon dioxide and a small residue. This solar- heated unit takes all cooked and uncooked food waste including meat, fish, bones and dairy products, vegetables and fruit.

Green Johanna is a unique closed, hot composting container manufactured in Sweden. It provides good ventilation, is easy to empty, and is available with an insulating winter jacket which is important, given the Falklands climate and should allow successful composting throughout the year.

At the end of the trial period of a year, during which participants will undertake to place all suitable waste in the composting units and give feedback on their effectiveness, a report will be produced and further recommendations made for consideration.

Heat recovery

Since the Falkland Islands Community School was completed some fifteen years ago, the water in its swimming pool has been heated by warm water recovered from the cooling system of the generators in the nearby Stanley Power Station. Now, in a further attempt to reduce reliance on imported fossil fuels, the generators themselves are being retrofitted with large heat-recovery boilers, which it is calculated will provide sufficient heat to warm both the school and the nearby hospital. According to Manfred Keenleyside, this scheme will save up to 300,000 litres of diesel per year and pay back its initial costs within four years.

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