

## Foresight is paying dividends

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*By Brian Groom and Andrew Bounds*

Providing power, communications, transport and other services at an affordable price is never easy on a small island that depends on imported oil and gas. To the Isle of Man's credit, it has recycled the proceeds of growth into its infrastructure - and had the foresight to do so before the squeeze on public finances now prompted by the UK's decision to claw back shared value-added tax revenues.

"We have spent about £1bn," says Allan Bell, Treasury minister. "We have completely renewed our infrastructure over the last 10-15 years. We have built a new power station, brought in natural gas, built a new hospital, renewed the sewer and waste system, the waste management process, alongside a rebuilding of schools and housing."

What might have been a handicap has been transformed into a competitive advantage. The Isle of Man now has a secure power supply and has exploited its location between England, Scotland and Ireland to build superb telecommunications links, which support industries such as e-commerce and e-gaming.

In the past the power supply was intermittent and subject to breakdown, but the Manx government has invested £400m (\$674m) over the past decade in power generation and electricity infrastructure. Since 2000 it has had a 60MW interconnector cable with the UK mainland and five years ago it commissioned an 84MW combined cycle gas turbine generating plant, supplying most of the island's electricity.

The project ran over budget and heads rolled at the government-owned Manx Electricity Authority. The Treasury has had to cover the extra borrowing costs - £8m last year - but now the authority is just about breaking even.

The electricity infrastructure is "as robust and secure as anywhere in the UK", says Ashton Lewis, the MEA's chief executive. The authority generates around 10 per cent of its £60m a year revenues from exporting electricity to the UK mainland.

Attention is turning to boosting the island's use of renewable energy. It already has a small hydro-electric plant that generates 1 per cent of its power and a waste incineration plant that provides around 7 per cent. The biggest issue is how to exploit the considerable potential for using wind and tidal power.

John Shimmin, environment minister, says: "The vision is for the Isle of Man to be more independent for its energy. We would start an onshore windfarm with six to eight turbines. We are looking at offshore too. We could get 12-15 per cent of our energy from wind." He says it could not rely on wind for more than that because it could risk security of supply.

The government aims to have the first wind farm on the island in two to three years and the offshore farm, which would provide power to the UK or Irish grid, in five to seven years. Mr Shimmin is reluctant to name possible locations identified by the MEA because of potential public opposition but says most people understand the need to cut carbon emissions.

The island is not a signatory to the Kyoto protocol but wants to mirror reductions in the UK and meet its target of generating 15 per cent of energy from renewable sources. It has also upgraded the insulation in public housing and offers a full grant for householders to do the same.

The government says it has decoupled growth from its environmental impact. Since 1990, gross national product has grown 230 per cent, while carbon dioxide emissions per capita have been reduced by 3 per cent. Since 2000, CO2 emissions from electricity generation have fallen by 38 per cent.

Mr Shimmin would also like to encourage entrepreneurs to research and test clean technologies. He has already established the TTXGP, a version of the famous motorcycle race for zero-emission vehicles. Electric cars are also on sale.

The island is already feeling the effects of climate change. A flood from rivers in the west caused £8m damage in 2002. "We have a responsibility to make our growth sustainable," he says.

There is also some commercial interest in testing the potential for tidal stream development, where sites have been identified off Point of Ayre and Langness.

The Isle of Man is aware it needs continually to improve its telecommunications infrastructure, particularly as it develops e-business. Financial services and e-gaming organisations need resilient connectivity to prevent failures interrupting their business, which can cause serious loss of earnings.

The island has the fortune to be on the route of two subsea loops of cables running from north-west England to Northern Ireland and Scotland, one run by BT and the other by Cable and Wireless, giving security of supply.

In addition, E-Ilan, part of the MEA, now sells surplus capacity on the authority's fibre optic cable to the UK mainland, enabling it to offer a wholesale data transmission service to telecoms customers requiring large bandwidth, bringing extra competition to the market for large volume broadband transmission.

"It's a never-ending journey. We will have to keep investing and keep improving," says Chris Hall, managing director of Manx Telecom, the incumbent operator owned by Spain's Telefónica. His company is investing more than £10m a year.

Because of the island's small size, it has been able to do deals with suppliers to showcase their technology - such as Alcatel-Lucent, the Franco-American company, which is using the Isle of Man to demonstrate its next generation network, a new digital platform, for the European market.

With such help, Manx Telecom, which already claimed to have been the first company in Europe to make broadband available to 99 per cent of homes, has extended coverage to 100 per cent. It has recently doubled its broadband download speed to up to 16 megabits per second, and plans to double its mobile broadband download speed to up to 7.2 mbps by January.

Manx Telecom derives 20 per cent of its turnover from off-island customers and data hosting revenues from its data centre. Its overseas partners include companies such as Ekit, an Australian provider of communications for travellers, and Tyntec of Germany, which provides high-quality text messaging services.

Manx Telecom now faces competition from Sure, a Cable & Wireless subsidiary, whose entry into the mobile market in July 2007 led to a 25 per cent drop in charges. Sure has invested £12m and says its mobile market share is above 20 per cent and growing steadily. It was given a fillip by the introduction of number portability in June.

A year ago it entered the fixed line market, also helping to push prices down. “We have reviewed the product and taken away some of the perceived barriers to take-up. It’s growing fast now,” says Mike Stanton, commercial director. Sure is well on the way to break-even, he says, and plans in future to start offering broadband.

Domicilium, one of four data centre businesses on the island, is the kind of company that is exploiting the ample bandwidth and security of Isle of Man’s communication links. “The island is particularly well served for fibre. With the internet and communications becoming increasingly important in the last 15 years, it has found itself to have an extremely resilient infrastructure with an awful lot of capacity,” says Andy Swearman, managing director.

In a former slipper factory near Ronaldsway airport, Domicilium has built a secure data centre using technology designed by Nato to protect computer servers on a battlefield. It provides data hosting, disaster recovery and network services for customers from banks to online retailers and e-gaming companies. About 65 per cent of its business is overseas, mainly in other offshore jurisdictions such as Malta and the British Virgin Islands.

It is also contributing to the island’s energy saving drive by getting much of its cooling free of charge from the cold climate through an evaporative process. It estimates it loses only about 30 per cent of energy in the course of its operations, comparable to Google’s performance in its data centres, and hopes to reduce this to 20 per cent.

Even though the big investments have now been made in the Isle of Man’s infrastructure, it is not resting on its laurels.

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