

Renewable energy: let's focus on what the Isle of Man can do

by Dr Dave Quirk, Director, Energy & Sustainability Centre IOM (ESC)

If the Isle of Man acts now to seize the opportunities offered by our own natural renewable resources, then in future years residents, businesses and politicians could look back with pride and say, 'look at what we have achieved'.

The alternative scenario, where we do the bare minimum has regrettable economic and social consequences.

At ESC we think the latter scenario is simply unacceptable – especially in light of what other [island communities have already achieved](#) using modern technology. The table below illustrates just how far behind the Isle of Man is compared to other islands – but it also provides inspiration because it shows that if they can do it, there's no reason why we can't too!

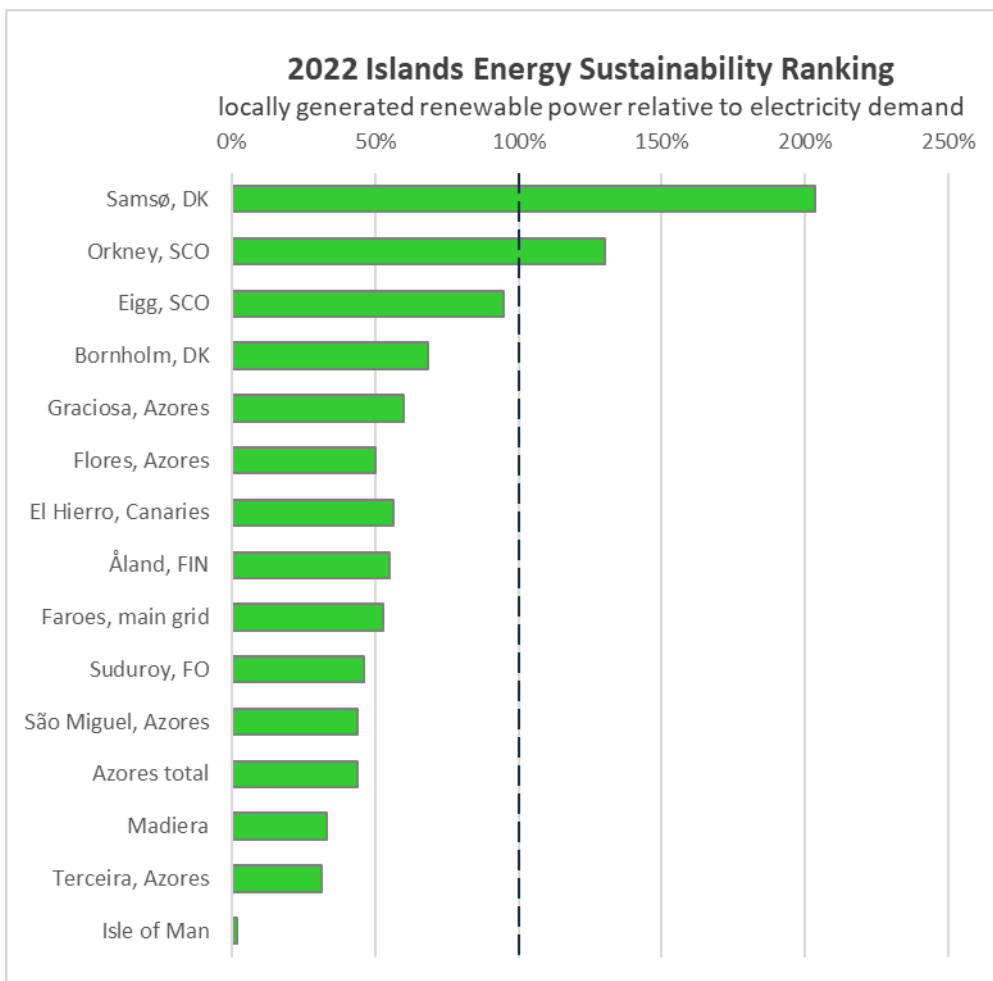


Table showing how far islands' have reached in generating enough renewable electricity to meet demand. The 100% line (dashed) means that the island already produces enough power to be self-sufficient. It is worth noting that all the islands except Orkneys have cheaper electricity than the Isle of Man. Source: [ESC](#)

The Island's economy will falter if we do not decarbonise rapidly – it is becoming increasingly difficult for international companies to justify being located where the electricity is not green. We should also take responsibility for our own emissions, as laid out in the Climate Change Act 2021. The good news is that the Isle of Man has some of the world's best resources of renewable energy, meaning that we can easily afford

to become self-sufficient in wind, solar and water power. Unlike oil or [gas exploration](#), there is no doubt that the renewable resources exist and they have predictable value.

Around 80% of the Island's carbon emissions are related to energy. The recent [announcement by the Manx Utilities Authority](#) of 20 MW wind and 10 MW solar is a welcome first step to moving away from gas power, but this represents only around one quarter of the Island's current electricity needs. The current plan is that the remaining 75% will be imported through a new interconnector (subsea cable) to the UK. This is not good for the economy, energy security or customers' bills.

Electricity itself only represents around 25% of the power the Island uses – the rest is used in heating and transport which again comes from gas and oil. The future cost of gas and oil is highly unpredictable. A deliberate attack on a pipeline or one major fault with an interconnector, and the prices will once again go through the roof. Moreover, we can no longer ignore the environmental effect of our dependence on hydrocarbons. ESC's own simulation work shows that energy-related emissions on the Isle of Man will barely fall until Pulrose power station is replaced. In other words, if the Island is to achieve its economic and climate goals, there needs to be a rapid move to sustainable sources of power.

To retain and attract business, green electricity has to play a central role in our future economy, not least because it's vital to ensure that our exports are not subject to carbon tariffs. However, turn this point around and there are multiple new opportunities for the Isle of Man. The Island has a long history of innovation from the earliest days of the industrial revolution to the 20th century (for example, the Laxey Wheel and Manx electric railway) and even recently with world leading developments in [3G mobile communications technology](#).

Major projects have enabled the Island to modernise the way we live and work, largely funded and engineered by the private sector – and the Island can draw inspiration from this pioneering spirit as we look towards a cleaner future. Based on economic data, including figures from Orkneys and Denmark, we estimate the value of a new renewable energy industry on the Isle of Man to be worth around £170 million per year, including 500-1000 new jobs.

Thanks to the value of the Island's natural assets (wind, solar, water, mountains), the Government can negotiate with renewable energy developers and lock down a price for the power we need. This requires appropriate legislation to attract investors and establish a Manx renewable energy industry. Once the Island can show it is serious about clean energy, new companies will relocate here and the green sector will flourish.

Renewable energy offers most value when it is combined with a means of storing the surplus, thereby providing a way to match wind and solar power to electricity demand. There are several ways to do this but a combination of batteries, underground reservoirs and thermal storage may offer the most benefits to the Isle of Man, including revenue through exports to the UK during times when they are running short of power. It is therefore important that the new interconnector has the specifications and size to allow for this.

To shake off our costly dependence on oil and gas, we also need to decarbonise heating and transport. This should be closely tied to plans for electricity in an overall scheme called a smart energy system. This means that, rather than expecting residents to make expensive changes at home, the whole energy network is upgraded. For example, large-scale heat pumps and solar power can be used to produce hot water for distribution to houses whilst vehicles can be powered by wind-derived electricity or green hydrogen.

In summary, for a successful transition to emissions-free power, ESC strongly believes that the Government should focus on 1) capital investment in the energy network; 2) enabling the private sector to do the rest. This will result in a legacy to be proud of.

