

# Isle of Man large scale energy storage system

Does the Isle of Man import energy from the UK?

The Isle of Man currently imports all of its energy from the UK (with the exception of what is produced from Sulby). In all future models, the Isle of Man remains dependent on GB for the provision of baseload. This is the case even where capacity is increased by building excess renewables, as the stabilisation is still provided by interconnectors.

How much electricity does the Isle of Man need?

For onshore developments the average rating for installed turbines is now greater than 1MW. 'Currently, electricity demand in the Isle of Man averages at around 40 megawatts and peaks at about 75 megawatts in winter, but can fall to as low as 25 megawatts at night during the summer,' says Mr Johnston.

How will the electricity sector change in the Isle of Man?

As the uptake for electric heating and electric vehicles increases, the electricity sector will have to grow to meet future demand. The majority of the Isle of Man's electricity is currently sourced from fossil fuels.

Where does the Isle of Man electricity come from?

The majority of the Isle of Man's electricity is currently sourced from fossil fuels. The interconnector is a source of carbon neutral electricity on island and also provides a route to export electricity to the GB Market.

Can the Isle of Man provide stabilising power to GB or ROI?

Opportunities for the Isle of Man to provide stabilising power to GB or ROI from a large-scale baseload power station, e.g. biomass or a small modular reactor? Neither option is without challenge, but likely provide the greatest potential for export. These options have not been explored in the analysis.

Can Isle of Man export electricity to GB?

There is also limited opportunities for Isle of Man to export electricity to GB, due to the excess capacity of renewable generators expected to be in operation by 2050. Isle of Man assets also have an 11% CAPEX uplift compared to equivalent UK installations, due to labour, available skill-set, transport and economies of scale.

A report from AEA Technology on the impacts and opportunities from renewable energy sustainability for the Isle of Man identifies eight possible locations for onshore wind farms. ...

o In December 2020, the Isle of Man Government launched its Future Energy Scenarios (FES) Strategy to determine the pathway to meet the following:

- o Electricity generation is now responsible for around 33% of all Greenhouse Gas Emissions on the Isle of Man.

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Isle of Man identifies eight possible locations for onshore wind farms. These are Ballacooiley in Ballaugh, Beary mountain, Dalby mountain, Gordon in Patrick, Keppel Gate, Snuff the Wind (which is above Foxdale), Jurby, and a site it ...

We want to use our experience and expertise in offshore wind to help the Isle of Man truly realise its ambitions and the objectives established under the Climate Change Plan 2022-27: 100% ...

The Future Energy Scenarios for the Isle of Man The key points are: - Each scenario uses varying levels of onshore wind/ offshore wind, biomass, solar power and storage technologies alongside interconnectors which provide resilience and security of supply. - Two of the four scenarios also have varying levels of behind-the-

In December 2020, the Isle of Man Government launched its Future Energy Scenarios Strategy to determine the pathways to meet the following: Electricity generation is responsible for approximately 33% of all greenhouse gas emissions on the Isle of Man, and a majority of this is currently sourced from fossil fuels (natural gas).

oMap current energy needs oExamine the potential for reducing future energy demand through improved energy efficiency oAssess renewable and low carbon options for the Isle of Man oAssess the relative attributes of future energy options oAnalyse the impacts of each option 4 An evidence base for future policy development

We want to use our experience and expertise in offshore wind to help the Isle of Man truly realise its ambitions and the objectives established under the Climate Change Plan 2022-27: 100% renewable electricity by 2030 and net-zero emissions by 2050.

We have designed a set of cards which describe different options for building a low-carbon energy system on a northern European island, based on our calculations for the Isle of Man. The cards explain the cost, size & impact of various technologies to supply 1000 gigawatt hours or 1 terawatt hour (1 TWh) per year, roughly 75% of the Island's ...

The Isle of Man is exploring the possibility of opening up a tender for 20MW of onshore renewable energy as part of its plans for 75% renewables by 2030. The Isle of Man government's Climate Change Transformation Board is looking to identify individuals or organisations capable of constructing onshore renewable generation or storage solutions ...



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