SOLAR PRO. Isle of Man ways of storing electricity

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.

How can a power interconnector be used in the Isle of Man?

The interconnector can be used to supply the additional energy demand, as well as balancing capability. The diesel engines at Peel and Pulrose with a collective output of 90 MW can together meet island demand. These generating assets and the interconnector can meet the Isle of Man electricity demand requirements.

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.

Can the Isle of Man rely on gas and oil?

It's clear that like all leading economies the Isle of Man cannot rely on gas and oil indefinitely. While the island's target to achieve net-zero by 2050 may seem far away,most of us worry about the current price of energy. Graph showing options to generate renewable power,store energy and utilise power on the Isle of Man.

Can electricity be decarbonised on the Isle of Man?

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). Without the decarbonisation 1 of electricity, it will not be possible to reduce carbon emissions significantly in other areas such as heating and transport.

Could the Isle of Man re-import electricity from an offshore wind farm?

With interconnectors the Isle of Man could re-import electricity generated from an offshore wind farm, allowing GB to manage the balancing. This would likely result in much lower costs to consumers. CFDs are not currently open to the Isle of Man as it is not part of the UK.

Graph showing options to generate renewable power, store energy and utilise power on the Isle of Man. The costs are before-profit averages assuming the investments are spread over 20 years, shown both as per kWh (kilowatt hour) and as per person per year. The energy storage costs are based on 3 GWh (gigawatt hours) of storage.

The Isle of Man has a fantastic opportunity to lead the way in the field of renewable energy. That is the view

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of green experts from across the island who came together to share their thoughts on what a sustainable future could look like.

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electricity generation scenarios for the IoM, consistent with the 2050 target. An additional offshore wind focused scenario has also been assessed. The Future Energy Scenarios for the Isle of ...

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o Electricity generation is now responsible for around 33% of all Greenhouse Gas Emissions on the Isle of Man. o Without the decarbonisation of electricity, it is not possible to reduce emissions in other areas e.g. Heating, Transport etc. o To ensure 75% of the island"s electricity is generated from renewable sources by 2035

The different ways islands source their electricity. The 100% (dashed) line represents the total demand while the bars indicate how much power is provided from renewable energy sources compared to power generated from fossil fuels or imported through an interconnector.

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 ...

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On the Isle of Man, if one of our generators trips, the interconnector immediately picks up the load without any impact on the power system or loss of supply. The Climate Act aims to decarbonise the electricity supply by 2030, drastically changing on Island electricity generation.

electricity generation scenarios for the IoM, consistent with the 2050 target. An additional offshore wind focused scenario has also been assessed. 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



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