

# RENEWABLE ENERGY: DELIVERING FOR WEST SCOTLAND



Across West Scotland, Scotland's renewable energy industry is working to harness our world-leading natural resources to generate the clean energy we need to run our lives while tackling climate change.

This factsheet shines a spotlight on just some of the renewable energy projects in West Scotland which are building healthier communities, creating green jobs and investment and making vital progress in tackling the climate emergency.

## Renewable energy facts: West Scotland

1. 87% of the region's renewable energy capacity is onshore wind, followed by bioenergy at 7% and solar at 5%.<sup>1</sup>
2. Scotland has 11.9GW of renewable electricity generation capacity – 0.5GW are in West Scotland.
3. Every year onshore wind farms in the region contribute £253,500 of community benefit funding money which would not otherwise be available for good causes.<sup>3</sup>

## Renewable Heat in Clydebank

Low-carbon heat is at the centre of the £250 million regeneration of Queens Quay in Clydebank from a former shipyard into a vibrant and sustainable community. Scotland's first two industrial scale Water Source Heat Pumps, manufactured by Star Renewable Energy, have been installed in a new Energy Centre and distribute heat throughout a 2.5 km district heating network overseen by Vital Energi and West Dunbartonshire Council. Heat is provided for up to 1,200 homes and public buildings including Clydebank College and Clydebank Leisure Centre.

These heat pumps harness heat from the River Clyde and generate energy to heat water up to 80°C, which is then pumped throughout the heat network. The Water Source Heat Pump is three times more efficient at generating heat than a gas boiler and

offers a lower price point than fossil fuels with an ability to consume off-peak electricity and store the heat generated. With a 60% lower carbon footprint than burning gas, the project will see 409 tonnes of carbon reduction in its first year alone.<sup>1,2</sup>

Scottish Renewables is calling for The Scottish Government to deliver and expand heat networks across Scotland's cities and towns.



1. <https://www.star-ref.co.uk/case-studies/industrial-heating/queens-quay/>  
2. <https://www.vitalenergi.co.uk/our-work/queens-quay-heat-network-design/>  
3. <http://www.kelburnwindfarm.co.uk/kelburn-wind-farm/>

## Onshore wind in West Scotland

Across West Scotland, onshore wind farms from developer RES are capturing our abundant wind resources to generate electricity for local communities. This includes the Kelburn Wind Farm which is 6km southeast of Largs. This wind farm can power up 15,000 homes, which is equivalent to 24% of households in North Ayrshire.<sup>3</sup> RES has made £420,000 of funds available to eligible communities surrounding its wind farms to support local priorities.<sup>4</sup>

Research for Scottish Renewables by Fraser of Allander Institute has shown that across Scotland onshore wind supports a total of 8,780 jobs,

helping to create the green skills we need for our net-zero future. The onshore wind industry also provides Scotland with an economic output of £2.4 billion.

Scottish Renewables is calling for a low-carbon assessment to be introduced into Scotland's Planning system to ensure that more renewable developments can go ahead.



## Hydropower in West Scotland

Sloy Power Station on the scenic west banks of Loch Lomond is the largest conventional hydro-electric power station in the UK. It has an installed capacity of 152.5MW generating enough electricity to power more than 80,000 homes. It can operate at full load within five minutes of a standing start and it is this almost instant availability that makes it ideal for use during times of peak demand. When Sloy's four machines are running at full load nearly a million

gallons of water pass through every minute. To date more than 8.5 billion kWh have been generated at Sloy.

Sloy Power Station forms part of the wider Sloy/Awe Hydro Scheme which stretches out beyond West Scotland into Argyll and Bute. This scheme contains 11 power stations owned by SSE, Cruachan power station owned by Drax as well as four dams which have a combined generation capacity of 702MW.

To create more green jobs for communities across West Scotland, Scottish Renewables is calling for the delivery of a Renewable Energy Economic Plan to underpin Scotland's green recovery.

4. <https://www.sse.com/news-and-views/2020/10/a-platinum-celebration-for-sloy-power-station/>



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