

NORTHERN DELIGHTS

DIMPLEX GROUND SOURCE HEAT PUMPS PROVIDE SHETLAND HOMES WITH COST EFFECTIVE HEATING



An energy efficient approach to construction, using low maintenance building materials together with Dimplex ground source heat pumps, is proving the key to cost-effective heating at a collection of ten new homes built by Shetland Islands Council in Brae.

Brae is situated on the Shetland Island known as Mainland and has roughly the same latitude as Oslo, Helsinki and St Petersburg – which goes some way to explaining the climate experienced by locals.

The new two-bedroom homes, built by Shetland Islands Council and now managed by the Council's Housing Development Services, provide much needed, affordable housing in the North Mainland area.

But more importantly, for customers, they deliver warmth and comfort with affordable heating bills, even in the extreme climate of the Shetland Islands, thanks to the specification of high temperature, high-efficiency ground-source heat pumps.

Customer Profile:

Shetland Islands Council

Location:
Brae, Shetland Islands

Sector:
Social Housing

Products:
Dimplex 6kW SIH ME
ground source heat pump

Dimplex EC-Eau 150 litre
hot water cylinder



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Brian Abbott, Shetlands Islands Council

Dimplex worked closely with the Council’s Asset Management team and their contractors on the design and installation of Dimplex 6kW SIH ME ground source heat pump systems at each of the properties, providing hot water and space heating via a Dimplex EC-Eau 150 litre hot water cylinder with integrated 75 litre buffer, and under-floor heating. A total of ten 100m bore holes were drilled before construction work began, allowing contractors to make best use of the available space with one localised bore for each property.

Renewable heat is a tried and tested method in the remote Shetland Islands, used with great success to provide low-cost heating, particularly in modern, well-insulated homes. However, this was the Council’s first ground source heat pump project, impressed by the technical and after sales support on offer from Dimplex. The development was named Gary Couper Road, in remembrance of Gary Couper who worked as an architectural technician in the council’s housing service.

Structural input was carried out by Mott MacDonald, architectural and quantity surveying by Shetland Islands Council and the main contractor awarded the project was T&N Joinery.

Brian Abbott for Shetland Islands Council design team said: “Using renewable energy was the only way we were able to comply with SAP regulations and meet planning requirements for the Brae project. We considered air source heat pumps, ground source heat pumps and even wind generation but

felt ground source, where the unit is housed inside away from the elements and collectors are safely underground, was the best option. Not only can they deliver higher efficiencies, but there was less risk of the system failing in the testing climate of the Shetland Islands.”

Shetland Islands Council chose Dimplex, which already supplies Quantum off-peak heaters across the Council’s housing stock, having previously being introduced to the Dimplex renewable product range and support services. Dimplex’s in-house renewable heating design team worked closely with the site team to provide technical support throughout the installations.

Brian added: “We’ve met a number of manufacturers but Dimplex was the only company that seemed able to back-up the quality and efficiency of its products with good information upfront and a comprehensive support package post-installation. From the technical expertise offered to our installer to the ongoing customer service that we’ve experienced, we’ve been impressed throughout and we’re confident we made the right choice.”

Brian concludes: “It was a big investment but we’re confident that tenants will be able to reap the rewards of low heating bills, comfortable homes and easy-to-use systems for many years to come.”

Dimplex is the market leader in electric heating appliances and systems. The extensive Dimplex product range spans domestic and commercial heating products, award-winning electric fires and surrounds and one of the widest ranges of renewables solutions available from a single manufacturer in the UK - all supported by unrivalled customer service and aftercare support.



Specification / Features

Dimplex 6kW SIH ME ground source heat pump

- Extracts heat all year round
- Nominal rating 4-11 kW
- Maximum flow temperature 70 °C
- Combines with wide selection of system accessories
- Offered in packages including cylinders and / or buffer tank
- Comprehensive heat pump manager provides system control over multiple heating and hot water circuits

Dimplex EC-Eau 150 litre hot water cylinder

- Mains pressure hot water
- High flow rates
- Fast reheat
- Well insulated, minimising heat loss and energy consumption/running costs
- Low maintenance
- Corrosion resistance and long life
- 25 year guarantee



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