

Kirkcudbright Swimming Pool Biomass Boiler

Introduction

Kirkcudbright Community Swimming Pool was built in 1997, following a ten year fundraising campaign which saw the local community raise £1million; £400k of which came directly from community members. The pool is 100% community owned and operated, has its own charity shop in the town, and provides several jobs for the local community, although many staff work on a voluntary basis.

Pool management were keen to reduce the pool's carbon footprint and save money at the same time, so they contacted Community Energy Scotland to enquire about CARES funding for installing renewables. They had previously commissioned an energy audit of the building which identified several options for heat provision. A biomass boiler was selected as the most appropriate option.



Equipment

Froeling 100kW wood pellet boiler

A Froeling 100kW boiler was installed which is capable of running on either wood chips or pellets, giving flexibility on fuel supply. The boiler is initially being run on pellets. A new building was constructed to house the boiler and fuel store across the road from the main swimming pool building, which was connected to the existing gas boilers and heating system via underground pipes.

The gas boilers have been retained to top up the new boiler, which was designed to provide around 80% of the heat required.

Cost and Grant Funding

Total project cost	£100,058	The remaining funding was obtained through: <ul style="list-style-type: none">• In-kind contributions from Kirkcudbright Swimming Pool• Own funds• Stewartry Area Committee (D&G Council)
CARES grant	£82,000	
Grant percentage	81.95%	

This project has been funded by the Scottish Government's Community and Renewable Energy Scheme (CARES).

Heat Output and Carbon Savings:

Heat Demand (annually)	464,000 kWh
Heat from Biomass Boiler (approx in 1 st year)	250,000 kWh
Annual CO ₂ Savings:	50 Tonnes
Lifetime CO ₂ Savings:	1000 Tonnes

Project Monitoring

No monitoring is currently installed, but CES is looking into this with a view to installing a remote device.

Local Benefits

Several local companies benefitted from sub-contracts during design and construction of the boiler and boiler house. Should the boiler achieve its expected output levels, the pool should realise ongoing cost savings which it could invest in other activities and help to maintain local jobs; unfortunately this is not currently the case (see below).



Lessons Learned

The boiler was expected to provide up to 80% of the pool's heating demand, however in practice this is believed to only have been around 30%, with the remainder coming from gas boilers. As a result, gas bills have increased because the pool is not able to commit to buying as large quantities of gas as it previously did. CES is working with Kirkcudbright Pool and the installers to try and remedy this problem.

For further information contact:

Kirkcudbright Swimming Pool contact:

Colin Wyper (Manager)
Kirkcudbright Swimming Pool
Castledykes Rd
Kirkcudbright
DG6 4AW

T: 01557 331881

E: mail@kirkcudbrightswimmingpool.co.uk

Community Energy Scotland contact:

Simon McKinney
Development Officer – Dumfries and Galloway

T: 07785714975

E: simon.mckinney@communityenergyscotland.org.uk