

Douglas Community Ecoheat

Introduction

The Douglas Community Ecoheat project developed from a long-standing desire on the part of the St Bride's Centre Community Group to install renewable energy technology within the St Bride's Centre as part of a wide-ranging redevelopment project for their Centre. During the design phase for the Centre, it became apparent that three other local neighbouring organisations shared common desires to increase their environmental status and financial sustainability. From there, a wood fuelled district heating scheme emerged.

Douglas Community Ecoheat was set up as the trading subsidiary of the Douglas St Bride's Community Group and was established to act as the management body for the new district heating system that serves and provides biomass heat to three distinct community buildings. The district heating system supplies heat (on a not-for-profit basis) to the neighbouring St Bride's Centre (the community facility managed by the Douglas St Bride's Community Group), Douglas Victoria Bowling Club and the Douglas Valley Church.

The community was extensively consulted in the wider redevelopment plans for the St Bride's Centre and the community and their input intrinsically influenced the shape and scale of the overall redevelopment project.



Equipment: 1 x 50kW Guntamatic power chip boiler, 1 x 100kW Guntamatic power chip boiler, 5000 litre accumulator tank, 2 x 48m³ capacity fuel stores with 4m spring agitators and auger delivery.

Douglas Community Ecoheat approached their local Community Energy Scotland Development Officer, who helped them through the development process and put them in touch with other similar Community biomass projects so they could learn from the experience of others. Due to the scale of the project, it was important that St Brides and the Douglas Community Ecoheat customers fully understood and were confident in all elements and aspects of the project and had expert support where and when required. To this end, a Scottish Government CARES technical assistance grant was awarded for a feasibility study and then for expert input to help in the tendering process. In addition, further CARES funding was awarded to pay the legal costs associated with drawing up the heat supply contract and associated wayleave and lease agreements.

An invitation to tender for the capital phase was placed on Community Energy Scotland's website in December 2009. Nine installers submitted bids. The winning tender was selected for a number of reasons including: from a technical perspective it was the strongest bid; it was cheaper than most returns; it was also the most inclusive bid in terms of the level of work that could be organised and undertaken by the supplier and the installer could meet the tight timescales required.

Cost and Grant Funding

Total Project cost for the installation of the biomass district heating scheme	£161,170	The remaining funding was obtained through: Own funds £1,000 South Lanarkshire Rural Capital Fund £62,500
CARES grant	£97,670	
CARES grant Percentage	60.6%	

Fuel Bill Savings

The feasibility study undertaken prior to the project installation estimated that there would be a reduction in fuel costs of £5,000/year for the system as a whole. This was based on fuel supply costs of 1.5p/kWh for wood fuel and 3.9p/kWh for oil. Douglas Community Ecoheat supply the three community organisations through a p/kWh heat supply contract on a not for profit basis. Their p/kWh charged out is reviewed periodically and includes all operational costs and works out at less of a cost to the other community customers than their previous oil systems.

Emission Savings

Estimated kWh savings p.a.	188,720
Annual Co2 savings tonnes	48,49
Lifetime Co2 savings tonnes	1,212.25

Project Monitoring



Heat meters have been installed to monitor heat consumption to each respective building. An information board explaining how the system works is located in the boiler house. Info boards are also located in the centre, bowling club and church. Updates on fuel consumption and savings will also be posted periodically on the boards. Fuel consumption and the amount and date of fuel deliveries is logged. These measures are directly intended to increase user and visitor awareness and understanding of the value of renewable heat savings amongst the Douglas community and to monitor overall system performance and efficiency

Local Impact

All three organisations involved were very keen that the biomass district heating system should act as an exemplar of best practice and promote the use of renewable energy more widely. The local primary school uses the facilities and have also also increased their interest and knowledge of renewable technologies.

For further information, contact:

Douglas Community Eco-heat Contact:

Adam Peters
Director, Douglas Community Ecoheat
St Bride's Centre
Braehead
Douglas
ML11 0PT
Tel: 01555 850 019
Mobile:
Email: adam.peters@wca-environment.com

Community Energy Scotland Contact:

Iona McDonald
Development Officer - Greater Glasgow
Level 3
St Georges Buildings
5 St Vincents Place
Glasgow
G1 2DH
Tel: 0141 275 4889
Email:
iona.mcdonald@communityenergyscotland.org.uk