

Seaview House, Caithness Solar and Biomass Integrated Heating

Introduction

Latheron, Lybster & Clyth Community Development company (LLCCDC) took on a 25 year lease of Seaview House, Lybster from the Highland Council in 2009 to develop a Community, Business and Resource Centre.

The Company was one of the organisations to take advantage of the Community Energy Scotland, Community Powerdown project and employ a local co-ordinator who steers and coordinates the development of local low-energy and low carbon projects. This project in particular was to install a biomass boiler integrated with a solar thermal array to provide heat and hot water for Seaview House. Energy efficiency measures were installed in an earlier phase of development, so the group are able to reap the full benefits from the new system.



The building is used as a multi purpose resource centre, a training venue, office space and meeting rooms. This project is an example of retrofitting renewables into a 'difficult' building. Within the environs of the building there are also two polytunnels, a number of tool sheds and allotments for use by local people. The Seaview Centre acts a demonstrator, inviting local people to look at what can be done using energy efficiency and low carbon/cost fuels.

Equipment:

Baxi 48kW Log boiler, 2400 Litre oval Akvaterm Accumulator tank including Solar and DHW coils; 6m2 Glow Worm Evacuated Tube Solar Thermal Array

Project details

- The group made sure the building was well insulated prior to installing the system. An energy assessment was undertaken and insulation and draft excluders fitted throughout the building as an earlier project
- On site staff were trained and mentored in the ongoing maintenance of the boiler and system generally. They will be able to troubleshoot the most common basic problems associated with this kind of system and as such will be able to pass this knowledge on to both visiting groups and the wider population of Lybster and surrounding villages
- The main fuel (logs) will be cheap to source. Rumster Forest, owned by the Forestry Commission, is just 3 miles away. The group will identify training for 2 people to attend a Chainsaw Certificate course, who can then cut the logs into firewood.

Cost and Grant Funding

Total Project cost	£ 59,671	The remaining funding was obtained through: EU LEADER £29,835
CARES grant	£ 29,835	
CARES grant Percentage	50%	

Fuel Bill Savings

Savings are estimated to be in the region of £3605 per annum

Emission Savings

Estimated kWh savings p.a.	34,240 kWh
Annual CO ₂ savings (kg)	20,327 kg
Lifetime CO ₂ savings (kg)	508,190 kg

Project Monitoring

The solar system has its own display panel. The group are also able to monitor the temperature in the accumulator tank on a display panel located in the boiler room and on installed temperature gauge on the accumulator tank.



Local Impact

The project has had a significant impact on the local community. Through provision of an affordable heating system the group are able to provide a nice warm building for the various classes, meetings, events and at an affordable cost.

Many families have shown an interest in alternative heating for their own homes as have other community organisations as a result of visiting this project, and also some businesses have installed solar panels.

Lessons Learned

The main lesson learned was that with the best will in the world installation timescales can slip as was the case with us. With classes and events planned this proved to be a particularly difficult time delivering the classes and allowing access to workmen.

Eric Larnach, the Resource Centre Manager, said:

“in the end it has been a worthwhile project saving us money, reducing CO₂ emissions and having a nice warm building to work in and for the community to come to”.

For further information, contact:

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