



NEWSLETTER

Out with the oil and in with the green

On Site Generation has completed another installation of an Ecodan air source heat pump, this time for a client in Ayrshire. With the heat loss calculation done the accurate design of the Ecodan heat pump to the house heating requirement was straightforward. New larger radiators were already fitted so the house was ready for the heat pump.

The Ecodan installation took 3 days. Day one was laying the Rehau preinsulated pipe into the ground so the hot water gets from the heat pump to the house across the 8m stretch of drive. Day two involved plumbing the Kingspan 250 litre tank into the heating and hot water system. The system was then set to run and commissioned on Day three.



The heat pump is now efficiently heating the house through a programmable time clock and wireless room thermostat, providing heating and hot water on demand.

It is a quiet machine and planning permission was not a problem.

At OSG, we are always very interested to know how our systems are performing. Electrical consumption of heat pumps is always a talking point. We are therefore helping our client monitor the electricity use in the house.

OSG Training

We are running two day Renewable Energy training courses on:

- 1st and 2nd September
- 26th and 27th October
- 24th and 25th November



Please call or email to book a place and visit our website for more info.

"An excellent two days full of useful information, good interaction and opportunity to ask questions and share experiences. The presentations were to a very high standard, presented by staff who were very well informed."

Graham Clark, Engineering Lecturer, West Lothian College.

On Site Generation SAP and Renewables Modelling

On Site Generation is working with housing associations, architects, community groups and private individuals to maximise carbon savings in new build or refurbishment projects.

Using our overall energy management experience and specialist renewables consultancy and installation knowledge, we are able to assess energy consumption and carbon

emissions from existing and proposed buildings using rdSAP, SAP and NHER modelling, and look closely at energy efficiency and renewable measures to combine the best of both worlds into the design proposals.

Current clients include: Kingdom Housing Association, Fife Council, Mount Stuart Trust, Linlithgow Climate Challenge.

We are researching individual properties achieving passivhaus standards, renewable energy technologies across multiple new build sites and refurbishment of listed buildings using local resources.

We are hoping to get involved in green-roofs and trialing new, sustainable insulation material in the near future.

Renewable Technologies for New Build Developments

OSG has recently completed a report for Kingdom Housing Association to aid decision making regarding incorporation of renewable technologies into their new build developments.

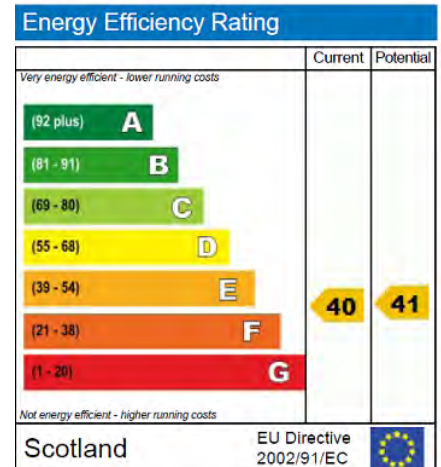
The potential technologies considered include solar water heating, biomass heating, biomass combined heat and power (CHP), ground source heat pumps, air source heat pumps, solar PV and wind generation. Each property type on an example proposed development site was modelled with each applicable technology (taking account of orientation, roof size and available space) using the

Governments Standard Assessment Procedure (SAP 2005) and NHER software.

A framework was developed to assess the best technology for each property type, based on the following criteria:

- Capital cost of supply and installation;
- Maintenance and running costs;
- Whole life cycle costs;
- Fuel costs for tenants; and
- Lifetime CO₂ emission savings

This framework can be applied to all new developments and adapted to consider refurbishments.



OSG's new practical hydro course coming soon

On Site Generation, in association with babyHydro, is offering a new training course specifically focused on the generation of hydropower in the size range 500W to 15kW.

The course will cover the principles behind the design, sizing, installation and maintenance of very small scale hydro schemes and looks at the likely costs, Feed-in Tariff income and funding mechanisms available.



Course attendees will gain a detailed understanding of small-scale hydropower and where schemes can be successfully installed.

The course provides a clear appreciation of all of the activities required to create a productive scheme, the aspects which can easily be done and those which will require assistance from other specialists.

Cost £375 + vat

First course starts 5th and 6th October at the Midlothian Innovation Centre, Roslin.

OSG training is going for IEMA approval

OSG is in the process of gaining Institute of Environmental Management & Assessment (IEMA) approval for our one and two day renewable energy awareness training courses.

The IEMA is a professional body for individuals and organisations involved in environmental management and assessment. Development of competency is a key issue for the environmental industry we are all so passionate about. IEMA has recognised that one way of helping to ensure this is via a programme of environmental training course approvals, designed to give individuals working within the environmental field, and their employers, greater confidence in the quality of courses they participate in.

OSG is working hard to meet the criteria of the approved course status so that our delegates can take pride in attending an IEMA approved course.



Quotes

"On Site Generation has worked with SOEC providing advice on energy management for our 4 outdoor education centres. I consider that OSG has the unique ability to fully connect the rather esoteric world of energy, its language its systems and procedures, to the world of business. By providing guidance and advice in ways that I can use effectively in running my Centres, I have found OSG's work indispensable."

Dave Spence, Chief Executive, SOEC

OSG Facts

Our client on Mull is delighted with her 6kW Proven Wind Turbine. In 8 months to June it has generated over 8,000kWh (and it was switched off for 3 weeks while some line work was carried out).

OSG's recent clients

SELECT
Scottish Centres
Energy Saving Trust
Kingdom Housing
Association
Fife Council
Sustaining Dunbar
Mount Stuart Trust

OSG and Solar PV

OSG is now installing solar photovoltaic systems. We think this is a fantastic technology which saves carbon and complements our heat pump installations, offsetting some of the electricity used by the heat pump.

In June, we installed two systems; one near Crieff and one at Jason's house in Ullapool.

With the Feed In Tariff paying 41.3p/kWh for retrofitted PV <4kW, the payback period looks attractive.



Installation near Crieff – 1.44kWp

So far we have installed Romag and Mitsubishi panels on Schuco frames. Our MCS certification visit will be planned for the next few weeks.

CRC Energy Efficiency Scheme



The Carbon Reduction Commitment Energy Efficiency Scheme started in April, which is a new regulatory incentive to improve energy efficiency.

The scheme is aimed at large organisations with a high energy demand. Participants must monitor their emissions and purchase allowances for every tonne of CO₂ emitted, as a direct incentive to reduce their emissions. The revenue from the allowances is given back to the organisations, with the amount received determined by each organisation's position in a league table to be published annually. The financial savings made from increasing efficiency should be greater than the cost of participating in the scheme.

On Site Generation can help organisations to comply with the scheme by assisting them to monitor their energy performance and identifying areas in which energy efficiency improvements can be made.

Who we are

On Site Generation Ltd is a renewable energy company, which supports the reduction of carbon emissions in homes, businesses and communities. We install renewable energy systems and provide expert energy and environmental consultancy and renewable energy training courses.

We are here to help you reduce the amount of energy you use and can design, install and maintain renewable energy systems including solar water heating, solar PV, heat pumps and wind turbines. We are MCS certified to install solar thermal and heat pumps. Our plan is to be solar PV and wind turbine certified in 2010.

On Site Generation Ltd

Midlothian Innovation Centre
Roslin
Midlothian
EH25 9RE
Tel: 0131 440 9020
Email: info@onsitegeneration.co.uk
Web: www.onsitegeneration.co.uk



Heat Pumps & Solar Thermal (No. NIC1009)