

INVERNESS COLLEGE, UNIVERSITY OF THE HIGHLANDS AND ISLANDS

# ONLINE INFORMATION

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RENEWABLE ENERGY TECHNOLOGIES



University of the  
Highlands and Islands  
Inverness College



Northern  
Periphery  
Programme

2007–2013

Innovatively investing  
in Europe's Northern  
Periphery for a sustainable  
and prosperous future



European Union  
European Regional Development Fund

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**Website SSE - <http://www.sse.co.uk/>**

**Sub-section: Being Green**

1. **Insulation** - <http://www.sse.co.uk/BeingGreen/Insulation/>
2. **Energy efficiency** - <http://www.sse.co.uk/BeingGreen/EnergyEfficiency/>
3. **Energy saving tips** - <http://www.sse.co.uk/BeingGreen/EnergySavingTips/>
4. **Energy efficiency survey** - <https://www.sse.co.uk/EnergyEfficiencySurvey/>
5. **Feed-in tariffs** - <https://www.sse.co.uk/BeingGreen/FeedInTariff/>
6. **Green deal** - <https://www.sse.co.uk/BeingGreen/GreenDeal/>

**Sub-section: Help and Advice**

1. **Billing and payment** - <https://www.sse.co.uk/HelpAndAdvice/BillingAndPayment/>
2. **Tariff comparison rate** - <https://www.sse.co.uk/HelpAndAdvice/TariffComparisonRate/>
3. **Your meter** - <https://www.sse.co.uk/HelpAndAdvice/YourMeter/>
4. **Smart meters** - <https://www.sse.co.uk/HelpAndAdvice/SmartMeters/>
5. **Iplan** - <https://www.sse.co.uk/HelpAndAdvice/iplan/>
6. **Safety and emergencies** - <https://www.sse.co.uk/HelpAndAdvice/SafetyAndEmergencies/>
7. **Moving house** - <https://www.sse.co.uk/HelpAndAdvice/MovingHome/>
8. **Treating customers fairly** - <https://www.sse.co.uk/HelpAndAdvice/TreatingCustomersFairly/>
9. **Extra help** - <https://www.sse.co.uk/HelpAndAdvice/ExtraHelp/>
10. **Customer service guarantee** - <https://www.sse.co.uk/HelpAndAdvice/CustomerServiceGuarantee/>
11. **Customer charter** - <https://www.sse.co.uk/HelpAndAdvice/CustomerCharter/>
12. **Contact us** - <https://www.sse.co.uk/ContactUs/>
13. **Regulatory and guidance information** - <https://www.sse.co.uk/HelpAndAdvice/RegulatoryInformation/>
14. **Complaints information** - <https://www.sse.co.uk/HelpAndAdvice/ComplaintsProcedure/>

**Website summary:**

SSE website is commercially orientated. They do however have a green section that is quite reasonable. Highlighting energy efficiency standards and how to make small changes that will affect the bill at the end of the month.

It also goes into a bit of detail about the feed in tariff and what is associated with that. All in all a standard website with the components that are expected from a big firm operating in a public environment.

## Energy saving trust website -

<http://www.energysavingtrust.org.uk/scotland/>

### Sub-section: Take action

1. **Find a grant** - <http://www.energysavingtrust.org.uk/scotland/Take-action/Find-a-grant>
2. **Get business funding** - <http://www.energysavingtrust.org.uk/scotland/Take-action/Get-business-funding>
3. **Get free advice** - <http://www.energysavingtrust.org.uk/scotland/Take-action/Get-free-advice>
4. **Home energy Scotland** - <http://www.energysavingtrust.org.uk/scotland/Take-action/Home-Energy-Scotland>
5. **Energy saving top tips** - <http://www.energysavingtrust.org.uk/scotland/Take-action/Energy-saving-top-tips>
6. **Private sector landlords support** - <http://www.energysavingtrust.org.uk/scotland/Take-action/Private-sector-landlords-support>
7. **Improve you home** - <http://www.energysavingtrust.org.uk/scotland/Take-action/Improve-your-home>
8. **Reduce your carbon footprint** - <http://www.energysavingtrust.org.uk/scotland/Take-action/Reduce-your-carbon-footprint>
9. **Find energy saving trust recommended products** - <http://www.energysavingtrust.org.uk/scotland/Take-action/Find-Energy-Saving-Trust-Recommended-products>
10. **Water efficiency trial** - <http://www.energysavingtrust.org.uk/scotland/Take-action/Water-efficiency-trial>

### Sub-section: Heating and hot water

1. **Saving money on heating** - <http://www.energysavingtrust.org.uk/scotland/Heating-and-hot-water/Saving-money-on-heating>
2. **Saving money on water** - <http://www.energysavingtrust.org.uk/scotland/Heating-and-hot-water/Saving-money-on-water>
3. **Replacing your boiler** - <http://www.energysavingtrust.org.uk/scotland/Heating-and-hot-water/Replacing-your-boiler>
4. **How to cope while waiting for your boiler to be fixed** - <http://www.energysavingtrust.org.uk/scotland/Heating-and-hot-water/How-to-cope-while-waiting-for-your-boiler-to-be-fixed>

5. **Thermostats and controls** - <http://www.energysavingtrust.org.uk/scotland/Heating-and-hot-water/Thermostats-and-controls>
6. **Improving electric systems** - <http://www.energysavingtrust.org.uk/scotland/Heating-and-hot-water/Improving-electric-systems>

### **Sub-section: Electricity**

1. **Lighting** - <http://www.energysavingtrust.org.uk/scotland/Electricity/Lighting>
2. **Products and appliances** - <http://www.energysavingtrust.org.uk/scotland/Electricity/Products-and-appliances>
3. **Reducing waste** - <http://www.energysavingtrust.org.uk/scotland/Electricals/Reducing-waste>
4. **Buying green electricity** - <http://www.energysavingtrust.org.uk/scotland/Electricals/Buying-green-electricity>
5. **Smart meters** - <http://www.energysavingtrust.org.uk/scotland/Electricity/Smart-meters>

### **Sub-section: Generating Energy**

1. **Find a renewables installer in your area** - <https://www.energysavingtrust.org.uk/scotland/Generating-energy/Find-a-renewables-installer-in-your-area>
2. **Free home visits** - <http://www.energysavingtrust.org.uk/scotland/Generating-energy/Free-home-visits>
3. **Getting started with renewables** - <http://www.energysavingtrust.org.uk/scotland/Generating-energy/Getting-started-with-renewables>
4. **Choosing a renewable technology** - <http://www.energysavingtrust.org.uk/scotland/Generating-energy/Choosing-a-renewable-technology>
5. **Getting money back** - <http://www.energysavingtrust.org.uk/scotland/Generating-energy/Getting-money-back>
6. **Information for installers** - <http://www.energysavingtrust.org.uk/scotland/Generating-energy/Information-for-installers>
7. **Real life case studies** - <http://www.energysavingtrust.org.uk/scotland/Generating-energy>
8. **Green homes network** - <http://www.energysavingtrust.org.uk/scotland/Generating-energy/Green-Homes-Network>



## Sub-section - Insulation

1. **Home energy check** - <http://www.energysavingtrust.org.uk/scotland/Insulation/Home-Energy-Check>
2. **Roof and loft insulation** - <http://www.energysavingtrust.org.uk/scotland/Insulation/Roof-and-loft-insulation>
3. **Wall insulation** - <http://www.energysavingtrust.org.uk/scotland/Insulation/Wall-insulation>
4. **Cavity wall insulation** - <http://www.energysavingtrust.org.uk/scotland/Insulation/Cavity-wall-insulation>
5. **Solid wall insulation** - <http://www.energysavingtrust.org.uk/scotland/Insulation/Solid-wall-insulation>
6. **Floor insulation** - <http://www.energysavingtrust.org.uk/scotland/Insulation/Floor-insulation>
7. **Draught-proofing** - <http://www.energysavingtrust.org.uk/scotland/Insulation/Draught-proofing>
8. **Windows** - <http://www.energysavingtrust.org.uk/scotland/Insulation/Windows>
9. **Insulating tanks, pipes and radiators** - <http://www.energysavingtrust.org.uk/scotland/Insulation/Insulating-tanks-pipes-and-radiators>
10. **Energy performance certificates** - <http://www.energysavingtrust.org.uk/scotland/Insulation/Energy-performance-certificates>

## Sub-section - Communities

1. **Local energy Scotland** - <http://www.energysavingtrust.org.uk/scotland/Communities/Local-Energy-Scotland>
2. **Community and renewable energy scheme** - <http://www.energysavingtrust.org.uk/scotland/Communities/Community-And-Renewable-Energy-Scheme>
3. **Getting started** - <http://www.energysavingtrust.org.uk/scotland/Communities/Getting-started>
4. **Green communities in Scotland** - <http://www.energysavingtrust.org.uk/scotland/Communities/Green-Communities-in-Scotland>
5. **Support and guidance** - <http://www.energysavingtrust.org.uk/scotland/Communities/Support-and-guidance>
6. **Finding funding** - <http://www.energysavingtrust.org.uk/scotland/Communities/Finding-funding>
7. **Case studies of community projects** - <http://www.energysavingtrust.org.uk/scotland/Communities/Case-studies-of-community-projects>
8. **Case studies of community projects Scotland** - <http://www.energysavingtrust.org.uk/scotland/Communities/Case-studies-of-community-projects#s>

9. **Community and locally owned renewable energy reports** - <http://www.energysavingtrust.org.uk/scotland/Communities/Community-and-locally-owned-renewable-energy-reports>

**Website summary:**

The energy saving trust website is a good online source for understanding renewables energy technologies and the associated benefits and drawbacks. It is able to highlight specific technologies in practice and case studies for all the home nations as well as advice for communities on getting started.

The advice is impartial as it is from a government source so does not have a bias towards companies offering a particular service or brand of good. It may however have a slight bias towards particular technologies, such as those in the RHI the renewable heat incentive.

**Warm homes fund -**

<http://www.energysavingtrust.org.uk/scotland/Take-action/Get-business-funding/Warm-Homes-Fund>

**The carbon trust website** - <http://www.carbontrust.com/home>

**Advice:**

1. **Business advice** - <http://www.carbontrust.com/client-services/advice/business-advice>
  - a. **Carbon footprint reporting and certification** - <http://www.carbontrust.com/client-services/footprinting/footprint-measurement>
  - b. **Carbon disclosure audit and verification** - <http://www.carbontrust.com/client-services/advice/business-advice/carbon-disclosure-audit>
  - c. **Energy savings opportunity scheme (ESOS)** - <http://www.carbontrust.com/resources/guides/energy-efficiency/energy-savings-opportunity-scheme-esos>
  - d. **Mandatory Carbon Reporting (MCR)** - <http://www.carbontrust.com/resources/guides/carbon-footprinting-and-reporting/mandatory-carbon-reporting>
  - e. **Corporate sustainability strategy** - <http://www.carbontrust.com/client-services/advice/business-advice/strategic-advice>
  - f. **Supply-chain carbon strategy** - <http://www.carbontrust.com/client-services/advice/business-advice/green-supply-chain>
  - g. **Waste measurement and management** - <http://www.carbontrust.com/client-services/advice/business-advice/carbon-water-waste-measurement-reduction>
  - h. **Water usage measurement and management** - <http://www.carbontrust.com/client-services/advice/business-advice/carbon-water-waste-measurement-reduction>

- i. **Employee engagement** - <http://www.carbontrust.com/client-services/advice/business-advice/employee-engagement-training-behaviour-change>
  - j. **Business model innovation** - <http://www.carbontrust.com/client-services/advice/business-advice/business-model-innovation>
2. **Public sector advice** - <http://www.carbontrust.com/client-services/advice/public-sector-advice>
  3. **Policy and markets** - <http://www.carbontrust.com/client-services/advice/policy-markets>
    - a. **Carbon reduction Commitment** - <http://www.carbontrust.com/resources/guides/carbon-footprinting-and-reporting/crc-carbon-reduction-commitment>
    - b. **Carbon leakage** - <http://www.carbontrust.com/resources/reports/advice/tackling-carbon-leakage-sector-specific-solutions>
    - c. **EU Emissions Trading Scheme** - <http://www.carbontrust.com/resources/reports/advice/eu-ets-the-european-emissions-trading-scheme>
    - d. **Consumer demand** - <http://www.carbontrust.com/resources/reports/advice/international-carbon-flows>
    - e. **Case studies** - <http://www.carbontrust.com/our-clients/?sector=&service=1285#results>

### **Text based information and case studies:**

#### **Highland Wood Energy - Online case study map for biomass projects, with PDFs for download**

<http://www.hwenergy.co.uk/case-studies.asp>

#### **Biomass heating guide document: practical guide document for potential users.**

[https://www.carbontrust.com/media/31667/ctg012\\_biomass\\_heating.pdf](https://www.carbontrust.com/media/31667/ctg012_biomass_heating.pdf)

It goes through the following:

- What is biomass?
- The fuels and heating systems associated with Biomass.
- What is involved in a successful implementation of a Biomass heating system?
- Why is Biomass a renewable low carbon source of fuel?
- Technical manual.
- Implementation guide.

- How to calculate basic equations associated with Biomass.
- Conversion factors.

As a government document it will be impartial as to the technologies used and have an objective focus. It will simply provide the information that is available on the topic.

**Micro generation guide to biomass heating:** document outlining what is biomass heating and whether it is suitable for the homeowner considering the technology. It gives an outline of the key facts and figures as well as the regulations that need to be considered when contemplating such a development.

<http://www.energysavingtrust.org.uk/Generating-energy/Getting-started-with-renewables/Microgeneration-guide-to-biomass-heating>

**Which guide to Wood burning stoves:**

## Video based case studies

### Biomass

#### Various biomass projects

<http://www.hwenergy.co.uk/videos.asp>

#### Domestic pellet boiler examples

(Note: the comment on grant funding is out of date as this scheme is no longer available)

<http://www.youtube.com/watch?v=qWjKyasBjMI>

<http://www.youtube.com/watch?v=IKJpSr5kkes&feature=related>

#### Wood chip heating for estate house example

<http://www.youtube.com/watch?v=ZBrbh6JxxuQ>

#### Wind - Scoraig community and Hugh Piggot

<http://www.youtube.com/watch?v=fcA2PkjmKAo>

#### Solar Thermal - Description of how solar thermal systems work

<http://www.youtube.com/watch?v=4agJEs34lLo>

#### **General** - Variety of technologies installed in one domestic property

<http://www.youtube.com/watch?v=YOtB16w1OfI>

#### Variety of technologies installed in community college

<http://www.youtube.com/watch?v=7JDlp1pieEE>

#### Similar example at Findhorn Village in Scotland

<http://www.youtube.com/watch?v=OMoleJ3Pvs8>

#### Feed In Tariff case study example

<http://www.youtube.com/watch?v=8djuqrr8Kao&feature=related>

**An explanation of the Renewable Heat Incentive**

<http://www.youtube.com/watch?v=pYbqih88Ijg&NR=1>

**How does solar PV work Video**

[https://www.youtube.com/watch?v=iDM-B\\_Tr1ek](https://www.youtube.com/watch?v=iDM-B_Tr1ek)

**How does solar thermal work video**

<https://www.youtube.com/watch?v=64mtlTOuXiA>