

### Heating with biomass means looking to the future - today!

Wood and plants are sustainable raw materials that can make a crucial contribution to energy supply. The comparatively low effort in producing it, make biomass an economical heating option.

## Payback

Annual costs savings/RHI income:	<b>£17,444</b>
Installation cost:	<b>£68,092.50</b>
<b>= Payback time 3.9 years</b>	

RHI Tariff Cutoff (Heating hours/year)	1314
Biomass Fuel boiler efficiency assumed	85%
Fossil fuel boiler efficiency assumed	90%
Current fossil fuel used	Fuel oil
Units	litres
kWh/unit	11.8
Annual Fossil Fuel Bill (£/Year)	£8,000
Current fossil fuel price (p/litre or m3)	£0.63
Quantity of fuel displaced (litres or m3)	12,698
Displaced fossil fuel price (p/kWh)	0.053 p
Annual heat requirement (kWh/year)	134,866
Boiler Size (kW)	100
RHI Size Category (S/M/L)	S
Annual heating hours	1,349
Percentage of Heating Hours Allowed	103%
Annual RHI Income (£/year)	£11,377
Wood Chip (£/t)	£50.00
Biomass Fuel Moisture content (%wb)	20%
Annual Biomass Fuel Demand (t/year)	39
Annual Biomass Fuel Cost	£1,933
Net Annual Revenue (RHI-fuel cost in £/year)	£9,444
<b>Net Annual Revenue + Total Annual Cost</b>	<b>Savings £17,444</b>

# Biomass Case Study

## Small (Commercial) 100kW BIOMASS



The Powerchip is a multi-fuel biomass boiler. This means that it will burn a range of biomass fuels including wood chips, wood pellets, grain or miscanthus.

Our boilers are Renewable Heat Incentive (RHI) compliant and, where relevant, all models are Microgeneration Certification Scheme (MCS) accredited.

Please note that the information provided is calculated based on assumptions around fuel and fuel usage and is provided as a guide only.

# ecofitter.co.uk

advice, architecture, installation

Ecofitter provide a full range of architectural services and practical installation skills including MCS compliance in all technologies and are a Green Deal organisation. We provide a one-stop shop in identifying our clients' renewable energy opportunities, from the assets on their farm or small estate, navigating the treacherous roads of planning and SEPA consents to install cash generative and appropriate installations, as well as planning consents on sustainable housing and holiday schemes.

We were finalists in the best Micro Business Category for the 2013 VIBES Awards in December last year for our research projects and client work. We hope to win this year in the Small to Medium sized Business Category.

Ecofitter is best described as an eco-consultancy, although it provides a whole range of services related to improving the quality and energy performance of buildings. It has a long history in property development which goes back to the 1990s and has dealt with clean energy since 2003. Extensive experience in keeping the world turning and guarantees on all work done mean there's no better company to turn to than Ecofitter, which can claim with some justification to be unique.

We believe that renewable energy is for anyone and everyone, so whether domestic or commercial, urban or rural, it will design and install the perfect green energy upgrade for each customer. It can help choose the right solution for a budget across a wide range of requirements from making a single installation or helping construct a whole new property.

Its clean energy installations are environmentally-friendly and sustainable with the added benefit of looking after your bank account as well as looking after the planet. Furthermore, your new equipment will be easy to use, understand and manage, ensuring you'll be free to safely generate green energy for decades to come.

**Renewables,  
Planning,  
Project Management,  
Installation.**

Qualified Chartered Eco Building Consultants / Designers who supply and install a range of renewable and low carbon products.

**T: 01578 730 390**

Muirhouse, Stow,  
Selkirkshire TD1 2QL

**E: [eco@ecofitter.co.uk](mailto:eco@ecofitter.co.uk)**

**Domestic or commercial, rural or urban, new build, conversion or retrofit  
– contact Ecofitter first.**



The Certification Mark for Onsite Sustainable Energy Technologies



SAP assessors and  
Green Deal compliant.