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JONAS**

The Property People

# BIOMASS HEATING

A NEW OPPORTUNITY WITH THE RENEWABLE HEAT INCENTIVE

IN CONJUNCTION WITH SAFFERY CHAMPNESS AND RURAL ENERGY

# BIOMASS HEATING

## A NEW OPPORTUNITY WITH THE RENEWABLE HEAT INCENTIVE

With the cost of fossil fuels projected to strengthen in future years, property owners and developers are increasingly looking for alternative heating systems in domestic and commercial premises. Following confirmation of the Government's commitment to the Renewable Heat Incentive (RHI) biomass boiler systems have become an attractive investment proposition for owners of mansion houses, estates and farms as well as residential and commercial property developers due to the attractive return on capital, in potentially a tax efficient way.

To fully appraise the opportunity for property owners and developers, Carter Jonas has teamed up with Rural Energy, a premier biomass boiler specialist. The collaboration builds on Carter Jonas' expertise across the renewable energy sector enabling us to provide comprehensive advice on the assessment and viability of a biomass boiler scheme, the procurement of any planning or listed building consent, finance, project management through the construction stage and, where applicable, woodland management.

In this briefing document we analyse the financial performance of a larger scale biomass district heating system, based around a mansion house and its adjoining cottages and offices, as well as a smaller farm based district heating system relating to a farmhouse, office and cottage. This latter example could also relate to a new build residential development.

We have also joined forces with chartered accountants, Saffery Champness, and the article overleaf sets out the structure that could be put in place to maximise the Enhanced Capital Allowances, Income Tax reliefs and VAT recovery available to biomass heating systems.

### BIOMASS BOILERS – HOW THEY WORK

Biomass boilers can be installed on both a domestic and commercial scale and all benefit from the RHI, based on a tiered tariff system payable linked to heat output.

In both of the examples overleaf a single biomass boiler is installed in a convenient location together with a fuel store. The boiler heats water for hot water and space heating which is then pumped underground to the mansion house, cottages or offices for distribution, usually through the existing central heating installation.

Biomass boiler systems utilise wood chip or reformed sawdust pellets as a fuel source. The systems are fully automated both in terms of the feed of the fuel into the boiler and also the start up of the boiler meaning they operate in the same way, and with as little fuss, as a conventional oil or gas boiler.

The wood fuel can be sourced from several UK based suppliers, or alternatively the fuel can be sourced from estate woodland and chipped on site. Although woodchip does require space for storage, for smaller scale or urban sites the use of wood pellets is an alternative option that generates a greater heat output for a lesser quantity of fuel.

### THE FINANCIALS EXPLAINED

The RHI will pay an attractive tariff for renewable heat generation for 20 years from the date that the scheme is registered, [index link](#).

The RHI is being introduced in two phases. Phase 1 for multiple property systems starts in October 2011. Typically, this might apply to farms or estates with one or two cottages or more and/or commercial premises or, perhaps, mansion houses with a mixed residential and commercial element. Single residential schemes become eligible in Phase 2 due to start in October 2012.

“OBTAINING SOUND ADVICE ON THE STRUCTURE FOR THE BIOMASS BOILER IS VITAL TO MAXIMIZE THE BENEFITS.”

The capital cost of a biomass boiler system is higher than a conventional fossil fuel system, but the RHI goes some way to offsetting that cost, together with any finance, fuel and other operational costs, delivering a return on capital of circa 20%. We expand on the financial performance and pay back period in each of the two examples.

As Saffery Champness illustrate, putting the right structure in place at the outset will also mean that 100% of the capital cost of an investment in qualifying plant and machinery can be written off against the taxable profits of the period in which the investment is made. Furthermore VAT is recoverable and operational costs are also tax deductible. Obtaining sound advice on the structure for the biomass boiler is vital to maximize the benefits.

### CAN BIOMASS SAVE YOU MONEY?

Carter Jonas and Rural Energy are working collaboratively to provide clients with a comprehensive biomass boiler service. We will undertake a desktop survey with potential clients to identify whether a biomass boiler system is feasible. Having completed the desktop survey we will work with Rural Energy to complete a site survey after which we will prepare a report identifying scheme options, capital cost, return on capital as well as any planning constraints. Where accountancy advice is sought, to ensure the right structure is put in place, we can work with your usual accountant or refer you to Saffery Champness as appropriate.

If you are interested in this sector and would like to find out more please speak to one of the Carter Jonas Energy Team via the contacts listed on the reverse of this brochure.



# STRUCTURING THE PROJECT

Having decided on the best form of energy generation for your own circumstances, the next step is to try to ensure it is structured in such a way as to make best use of the tax reliefs that are available at the current time. Whilst the decision to implement a renewable heat source is a commercial one, getting the tax structure right can make or break the project.

An example of a structure that may be suitable in either of the case studies is to create an energy supply company to undertake the project. The potential benefits could be:

- securing 100% Enhanced Capital Allowances (ECA's) on the cost of qualifying renewable energy plant
- the surrender of company losses, created by ECA's, for cash by way of the repayable tax credit
- possible Enterprise Investment Scheme (EIS) Capital Gains Tax deferral if there are capital gains available to the investor
- full VAT recovery on the cost of the project
- ongoing upkeep of the plant is tax deductible
- reduced heating costs
- the amount paid for heating the mansion house is payable to the energy supply company rather than a third party energy supplier, ensuring the money remains in the control of the family
- payments from tenants for heat is to the energy supply company rather than a third party energy supplier, ensuring the money remains in control of the family
- shares in the energy supply company qualify for Business Property Relief (BPR) on the death of the owner
- once the energy supply company starts to make profits they will be taxed at a lower rate of 20%
- shares can be gifted and holdover relief claimed (although care is needed if EIS previously claimed)



By contrast, if no consideration is given to the structure then potential adverse consequences are:

- restricted VAT recovery due to the private use element
- limited ECA claim due to the plant not being used for 'business purposes'
- ongoing upkeep is only partly tax allowable
- plant sits in owner's estate and is taxable on death as a non business asset

There is no 'one size fits all' as an energy company may not be appropriate in all instances, depending on individual circumstances. Ultimately advice should be taken on each specific project as the benefits can be significant.

**Saffery Champness** is an independent top 20 firm of chartered accountants with nine offices across the UK and offices in Guernsey and Geneva. We focus particularly on advising owner-managed businesses in a variety of commercial sectors, wealthy individuals, families and trusts, charities, other not-for-profit organisations and landed estates. Our Renewable Energy Team is actively involved in providing advice in connection with renewable projects, acting for landowners, developers and stakeholders, dealing with on-shore wind, hydro, solar and biomass projects.

# COULD BIOMASS WORK FOR YOU? CASE STUDY 1



This case study relates to a mansion house together with six further buildings to heat which are utilised for domestic and commercial purposes. A single biomass boiler has been installed in a central location, off which has been laid a district heating main serving all six buildings and the various individual properties. Where heat is to be recharged to third party tenants, a heat meter has been installed in those respective properties. Whilst the estate does have in hand woodland that could be used as a fuel source, in this example we have prepared the financial analysis on the basis that the woodchip fuel is bought in. Finance on 70% of the capital expenditure has been secured which has also been factored into the financial analysis.

## EXISTING HEATING PROVISION

Property type	Boiler type	Annual fuel cost (@60p/l)
Main House - West Wing	Oil	9,000
Main House - East Wing	Oil	6,750
South Lodge	Oil	3,150
Keepers Cottage	Oil	1,800
Accommodation flat 1	Oil	3,150
Accommodation flat 2	Oil	1,350
Accommodation flat 3	Oil	1,350
Estate offices	Oil	4,500
Offices 1 & 2	Oil	4,050
Stable block	Oil	450
		<b>£35,550</b>

## BIOMASS COMPARISON

Capital cost	£183,800
Annual wood chip cost (at £95/T)	£16,082
Annual maintenance	£1,750
<b>RHI income/annum</b>	<b>£18,974</b>
<b>Net return on capital (before tax)</b>	<b>20.40%</b>

## CASE STUDY 1 - CUMULATIVE BENEFIT OVER TYPICAL BOILER LIFETIME



# COULD BIOMASS WORK FOR YOU? CASE STUDY 2



This case study relates to a farm (although it could also relate to a small scale residential development site), comprising three dwellings or commercial buildings. The site does not have access to a wood chip fuel source and so the financial analysis has been prepared on the basis that it is all bought in. Finance on 70% of the capital expenditure has been secured which has also been factored into the financial analysis.

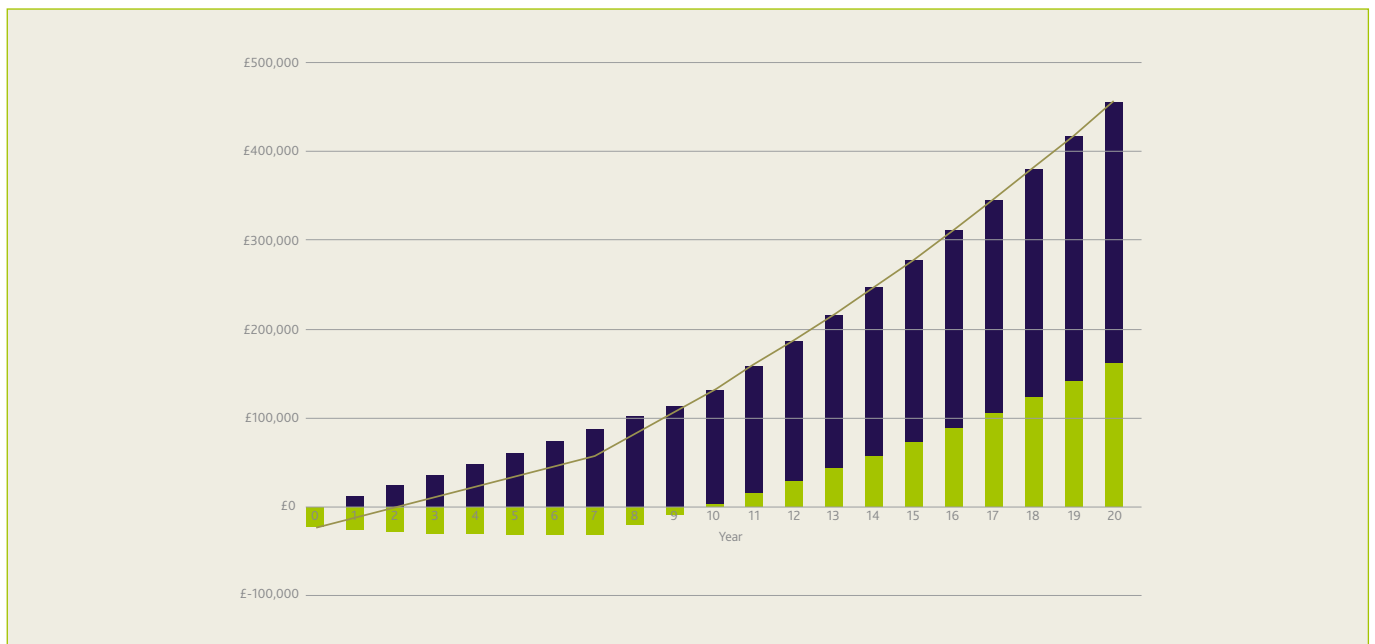
## EXISTING HEATING PROVISION

Property Type	Boiler type	Annual Fuel Cost (@60p/l)
Farm House	Oil	5,280
Office	Oil	6,840
Flat	Oil	
		<b>£12,120</b>

## BIOMASS COMPARISON

Capital cost	£78,000
Annual wood chip cost (at £95/T)	£5,483
Annual maintenance	£700
<b>RHI income</b>	<b>£11,480</b>
<b>Net return on capital (before tax)</b>	<b>24.40%</b>

## CASE STUDY 2 - CUMULATIVE BENEFIT OVER TYPICAL BOILER LIFETIME



**Rural Energy** is a leading biomass heating company with specialist experience in the design, supply and installation of wood fuelled heating systems. With over 300 installations across the UK since 2002, Rural Energy has established a strong reputation for delivering a complete service, from initial design concept through to after-sale support from their Leicestershire headquarters. Rural Energy is the UK agent for Austrian & German biomass boiler manufacturers, offering a wide range of boilers, fuel feed and fuel storage systems to meet the differing requirements of each project.

For more information, please contact:

Peterborough



**Andrew Watkin** Partner and Head of Energy Team

**01733 588617**

[andrew.watkin@carterjonas.co.uk](mailto:andrew.watkin@carterjonas.co.uk)

East



**Iain Nott** Senior Associate

**01733 588620**

[iain.nott@carterjonas.co.uk](mailto:iain.nott@carterjonas.co.uk)

North



**Charles Hardcastle** Senior Associate

**01904 558209**

[charles.hardcastle@carterjonas.co.uk](mailto:charles.hardcastle@carterjonas.co.uk)

Central



**Ed Pettit-Mills** Rural Surveyor

**01865 404438**

[edward.pettit-mills@carterjonas.co.uk](mailto:edward.pettit-mills@carterjonas.co.uk)

South West



**Thomas Ireland** Associate

**01749 683386**

[thomas.ireland@carterjonas.co.uk](mailto:thomas.ireland@carterjonas.co.uk)

West



**Richard Rees** Energy Specialist

**01248 360412**

[richard.rees@carterjonas.co.uk](mailto:richard.rees@carterjonas.co.uk)

Saffery Champness



**Jane Hill** Partner, Saffery Champness

**01733 353300**

[jane.hill@saffery.com](mailto:jane.hill@saffery.com)

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