

Briefing note on the Renewable Heat Incentive (RHI)

1) Introduction to the RHI

In November 2011 Central Government launched the Renewable Heat Incentive (RHI). Similar to the Feed in Tariff for renewable electricity production, the RHI aims to increase the uptake of more sustainable heat producing equipment in homes and businesses through a guaranteed payment that can be claimed for 20 years. One of the key technologies supported is biomass.

Table D1 outlines the tariffs available for eligible biomass installations. It is estimated that the council programme to convert from oil to biomass would use a combination of small and medium sized biomass boilers.

Table D1: Renewable Heat Incentive (RHI) tariff table

Tariff Name	Eligible Sizes	Tier 1 ^a Tariff (p / kWh _{th})	Tier 2 ^b Tariff (p / kWh _{th})
Small Biomass	Less than 200 kW _{th}	7.9	2.0
Medium Biomass	200 kW _{th} – 1000 kW _{th}	4.9	2.0
Large Biomass	1000 kW _{th} and above	1.0	1.0

^a Tier 1 is payable for the first 1,314 hrs that each boiler is used during an RHI year.

^b Tier 2 is payable once each boiler has operated for more than 1,314hrs in each RHI year

2) Worked RHI example

For illustrative purposes an example of how the RHI payment is calculated is outlined below.

EXAMPLE 1:

A facility equipped with a 100 kW_{th} boiler, operating at peak output for 4 hours on each working day between October 1st and March 31st would operate for 728 hours during a 12 month period. As this is under the 1,314 hour tier 1 and 2 threshold, the RHI payment would be based solely on the tier 1 tariff. The RHI payment calculation would be:

Boiler size x hours of operation = kWh_{th}

100 x 728 = 72,800 kWh_{th}.

$\text{kWh}_{\text{th}} \times \text{Tier 1 tariff} = \text{RHI payment}$

$72,800 \times \text{£}0.079 = \text{£}5,751 \text{ per annum}$

EXAMPLE 2:

Hypothetically speaking if the boiler was operating at peak output for 8 hours on each working day between 1st October and 31st March, it would operate for 1,456 hours during a 12 month period. Although most of the hours would be payable on tier 1 of the tariff, the 142 hours over the 1,314 threshold would receive a tier 2 tariff.

$100 \times 1314 \text{ (tier 1)} = 131,400 \text{ kWh}_{\text{th}}$

$131,400 \times \text{£}0.079 = \text{£}10,380.60 \text{ (for the hours operated under tier 1 of the tariff)}$

$100 * 142 = 14,200 \text{ kWh}_{\text{th}}$

$14,200 \times \text{£}0.02 \text{ (tier 2)} = \text{£}284 \text{ (for the hours operated under tier 2 of the tariff)}$

Total RHI payment = **£10,664.60**