

**Ellis, Cathal**

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**From:** Hughes, Seamus  
**Sent:** 22 August 2016 16:22  
**To:** Ellis, Cathal  
**Cc:** Marten, Lucy; Wightman, Stuart  
**Subject:** RE: Biomass versus oil costs

Cathal

Many thanks for this, most helpful.

Regards

Seamus

**Seamus Hughes**

Energy Efficiency  
Department for the Economy  
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**From:** Ellis, Cathal  
**Sent:** 22 August 2016 11:50  
**To:** Hughes, Seamus

**Cc:** Marten, Lucy; Wightman, Stuart  
**Subject:** RE: Biomass versus oil costs

Seamus,  
Outside of the poultry sector LPG usage would be minimal within agrifood. I am aware of a small number of glasshouse producers using LPG for tomato and cut flower production. Volume would be very small when compared to poultry. There may be a small number of farms using LPG to dry grain.

Average price within Northern Ireland for 2015/16 financial year was 7.77p/kWh

1 litre LPG = 6.6kWh Cost of 1 litre = 6.6 x 7.77 = 51.26p

Regards

Cathal

**Cathal Ellis** | Acting Senior Renewable Energy Technologist | Department of Agriculture, Environment and Rural Affairs | Greenmount Campus | CAFRE | 45 Tirgracy Road Antrim | Co Antrim | BT41 4PS |  
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**From:** Hughes, Seamus  
**Sent:** 17 August 2016 13:54  
**To:** Ellis, Cathal  
**Cc:** Marten, Lucy; Wightman, Stuart  
**Subject:** RE: Biomass versus oil costs

Hi Cathal

I wonder if I could call on your local knowledge again with regard to a couple of issue around LPG:-

- 1 Would you have any information around LPG usage generally in the agrifood sector outside of poultry?
- 2 Have you any current figures on LPG costs?

Thanks again for all your help.

Regards

Seamus

**Seamus Hughes**

Energy Efficiency

Department for the Economy

Netherleigh

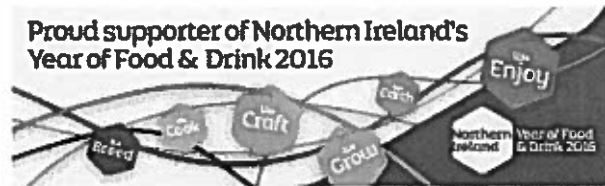
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**From:** Ellis, Cathal

**Sent:** 04 July 2016 16:32

**To:** Hughes, Seamus

**Subject:** RE: Biomass versus oil costs

Seamus, As per discussion.

Generally speaking there has been little movement in the **average** cost of a 99kW wood pellet boiler (at around £30,000) or average cost of a 99kW boiler installation (around £50,000). Bear in mind that this is an average cost, so Propel boilers would have cost less, whilst the likes of KWB would have cost more. Likewise the installation costs can vary significantly depending on the type of installation.

(During 2012 I was quoted £5500, £10,000 and £12,000 (Sлимпel, KWB, Froling) for a domestic 15/25kW boiler installation)

The table below is for comparison purposes as it reflects a particular set of circumstances and costs. However it does illustrate how the average cost of running an oil boiler during 2012/13 was almost twice that of running the same boiler during 2015/16, due to the price of oil. The cost of running a wood pellet boiler was initially lower, but is significantly higher during 2015/16 reflecting a change in fuel cost but also indicating increased maintenance costs. It is interesting to note that pellet fuel cost has come

down during 2015/16. It may be that the pellet producers have passed on savings in transportation costs, but may also be due to increased demand and increased competition within the pellet fuel market.

	120kW Oil Boiler				99kW Wood Pellet Boiler			
	2012/13	2013/14	2014/15	2015/16	2012/13	2013/14	2014/15	2015/16
Purchase Cost	Up to £3,000	Up to £3,000	Up to £3,000	Up to £3,000	Around £30,000	Around £30,000	Around £30,000	Around £30,000
Fuel Cost - Oil/Pellets/kWh*	5.58p	5.23p	4.37p	2.81p	3.83p	4.15p	4.16p	3.36p
Increase in electricity use	0	0	0	0	0.23p	0.32p	0.30p	0.30p
Boiler Maintenance Cost/kWh*	0.04p	0.04p	0.04p	0.04p	0.19p	0.22p	0.25p	0.25p
Remedial Repairs/kWh*	negligible	negligible	negligible	negligible	0.10p	0.10p	0.10p	0.10p
Av. Running Cost/ kWh	5.62p	5.27p	4.41p	2.85p	4.35p	4.79p	4.81p	4.01p

\*Based on CAFRE costs

Regards  
Cathal

Cathal Ellis | Acting Senior Renewable Energy Technologist | Department of Agriculture, Environment and Rural Affairs | Greenmount Campus | CAFRE | 45 Tirgracy Road Antrim | Co Antrim | BT41 4PS |  
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**From:** Hughes, Seamus  
**Sent:** 04 July 2016 12:09  
**To:** Ellis, Cathal  
**Cc:** Wightman, Stuart  
**Subject:** Biomass versus oil costs

Cathal

Our discussion just now refers. Grateful if you would be able to review your attached paper and present same using historical costs for use in our ongoing RHI evaluation/VFM assessment.

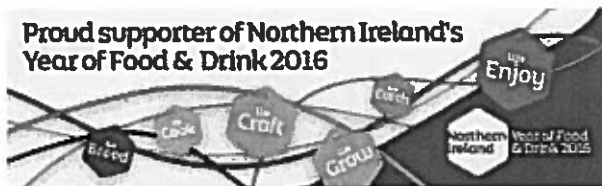
Many thanks again for your help with this.

Regards

Seamus

**Seamus Hughes**

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