

# Case Study

## MUIRTON OF BARRA COMBINED SYSTEM—GRAIN DRIER & DISTRICT HEATING



### Key Facts

System: Provides heat to grain drier, large farmhouse and three farm cottages

Boiler: Fröling TX 250 (250 kW) and Kalvis 720 M-1 (720 kW)

Fuel type: Woodchip, wood pellets

Potential RHI Income: **£66,788** every year for 20 years, index linked.



Turblown Ltd

Experts with Biomass



Installer Partner of



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### Project Brief

Due to an increase in their grain drying requirements, the Stephens at Muirton of Barra were keen to use biomass technology to carry out this process. At the same time, they wanted to switch over their current heating/hot water systems in the estate properties.

### Biomass Solution

Turblown Ltd installed a combined system, which comprises a Fröling TX 250 (250kW) boiler and a Kalvis 720 M-1 (720kW) biomass boiler. Heat that is generated is used in two different ways: 1. Heat is transferred to a fan coil unit. Heat is then supplied to a wet grain pile through a ventilated floor to dry grain. 2. Heat is also transferred to a 5000litre buffer tank. Heat is then distributed via two temperature controlled loops with underground insulated pipe to 3 farm cottages and the main farmhouse where it, in turn, is used for space and domestic hot water purposes.

### Result

- Unlimited heating and hot water to all properties
- Considerable fuel savings
- Significant return from Renewable Heat Incentive
- Low maintenance, easy to use and highly efficient system
- With the combination of the high output Kalvis M-1 and the sophisticated, fully automatic Fröling boiler, this system can satisfy high heat demand (e.g. grain drying in the summer) or very low heat demand (e.g. domestic hot water for 1 house in the summer)
- The fuel supply equipment is shared between the two boilers; saving on installation cost, space and making the system more user friendly

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Mains of Fedderate  
Maud Peterhead  
Aberdeenshire  
AB42 4QF  
UNITED KINGDOM

+44 (0) 1771 643830  
+44 (0) 7833 053377  
info.uk@turblown.co.uk

[www.turblown.co.uk](http://www.turblown.co.uk)

