

Biomass

Case Study

Vinny Farms Straw Boiler

John Reid, Vinny Farms, near Forfar



Project Overview

John Reid was aware of the potential opportunities that biomass boilers could offer on the farm, but wanted some independent advice to fully assess his options and the financial case for different project options.

John contracted SAC Consulting to undertake an initial feasibility study for the farm. The farm has a number of cottages, an office and a potato grading shed that all required heat. The study identified three separate potential biomass projects on the site:

- Straw boiler for the potato grading shed
- Pellet boiler for the farmhouse, office and staff room
- Pellet boiler for a cluster of three cottages

For each cluster, the most appropriate biomass fuel was identified, based on the technical requirements and the Client's needs.



Services Provided

- Initial biomass feasibility study for the farm:
 - ◆ Identification of opportunities for biomass boilers
 - ◆ Recommendations on fuel type for each cluster
 - ◆ Financial analysis of each option, including estimated capital cost, fuel costs, income from the Renewable Heat Incentive and payback
- Renewable Heat Incentive application support, including schematic, for the boiler installed in the potato grading shed

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Outcome

Based on the feasibility studies, the Client felt that the priority project was to install a straw bale boiler in the potato grading shed. The shed was previously heated using heat from the refrigeration units in an adjacent shed. This was not providing sufficient heat, or heat at the times when it was really needed. This was not ideal for warming the potatoes or for the comfort of employees working in the shed. A biomass boiler was a solution to the heating problem, with the added advantage of creating a new income stream for the business. A straw bale boiler was selected over other biomass fuels for a number of reasons, primarily the availability of straw on farm and the cost per p/kWh, as well as the lower capital cost of the boiler itself.

Based on the information provided in the initial feasibility study John went ahead with the installation of an Ekopal 180kW straw bale boiler. He engaged SAC Consulting to complete his application for the Renewable Heat Incentive scheme, including the system schematics, and the application was successful.

“Having previously been made aware of good rates of return on investment in renewable heat projects, I was keen to tap into a new income stream and improve the environmental credentials of the farming business. With little knowledge of the heating systems available to suit the heat requirements on farm, or the mechanics of the RHI scheme, I felt independent advice was necessary before embarking on any project.”

