

Biomass Supply Chain Development in Ireland

EAFRD-funded projects

IRELAND

Local development

Location

Mohill, Leitrim county

Programming period

2014 - 2020

Priority

P6 – Social inclusion & local development

Measure

M19 - LEADER/CLLD

Funding (EUR)

Total budget 149 668.5 EAFRD 46 995.9 National/Regional 27 838.3

Private 74 834.3

Project duration

2017 – 2018

Project promoter

McCauley Woodfuels Limited

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ENRD Contact Point

Rue de la Loi, 38 Boîte n.4 - 1040 Brussels, Belgium Tel. +32 2 801 38 00 email: info@enrd.eu website: http://enrd.ec.europa.eu/ An investment project that allowed a company to fill the gap in the local supply chain for wood chips in the north-west of Ireland.

Summary

To reduce reliance on fossil fuels through the use of renewable energy sources, a wood-fuel business in Leitrim, north-west Ireland, has invested in more efficient wood-chipping machinery of large capacity.



As the only Wood Fuel Quality Assurance Certified (WFQA) supplier locally, the investment from LEADER will help McCauley Wood Fuels fill the gap in the local supply chain and ensure the necessary capacity in anticipation of increasing demand for wood chips. The new machinery with its increased flexibility will also open up a greater market for small-scale private forestry to process small lots on-site for the forestry grower themselves.

Results

The company expanded its client base by securing two new customers who source significant volumes of biomass from the company.

The volume of wood chip processed by the company has increased by 250%, with a potential total capacity increase of 500%.

The new biomass wood chipping machine processes wood chip each week that displaces significant quantities of fossil fuel. In 2019, McCauley Wood Fuels will have sufficient biomass processed and lined-up for delivery to displace the equivalent of over 200,000 litres of oil per week

Lessons & Recommendations

- ☐ The gradual development of McCauley Wood Fuels allowed its founders to learn about the market which the company was targeting, how it worked, what influenced it and expected growth patterns. Thus this approach, helped the company establish its supply chain and client base.
- ☐ The applicant felt the LEADER application process ran well and they had expected some delays along the way. However it did take even longer than they had anticipated. The applicant notes how having a realistic timeframe is important, but also to have patience and stay with the process as it has been a huge support to the business.



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Context

The family farm, based just outside Mohill in County Leitrim in the north-west of Ireland, had previously diversified into running a landscaping business in the 1990s. They further diversified by supplying firewood in the mid 2000s, which helped provide employment when landscaping was not possible due to bad weather. Because of the economic downturn in 2008, the landscaping business was gradually wound down over a period of years and the stand alone McCauley Wood Fuels was formally established in 2017.

The market for wood chip has grown in Ireland since 2009 due to grants introduced by the Government, but there was slow uptake in domestic wood chip boilers due to the difficult economic situation. However, the agricultural market for wood chip was already developed. Wood chip can be used as an alternative to straw for indoor bedding or for out-wintering pads for cattle such as dairy herds.

The real increase in customers is expected in 2019 when the biomass industry gets the long-awaited Support Scheme Renewable Heat (SSRH), which is a national scheme for renewable heating. This will support boiler installation in hotels, swimming pools, hospitals, etc.

This market is likely to introduce a greater number of smaller-scale systems and McCauley Wood Fuels wants to consolidate and be in a position to service this market when it comes on stream.

In this context, the project was needed to meet the forecasted market growth for wood chips in the region and to ensure capacity was able to meet fluctuations in demand.

Objectives

This project allowed McCauley Wood Fuels to invest in a larger capacity and more efficient wood-chipping machine that facilitated:

- an increased biomass production capacity and customer base for the business which enables a move into a more advanced phase of development;
- the growth of the region's renewable wood biomass supply chain, also supporting the development of the forestry/biomass sector in the region; and
- the growth in the use of local renewable biomass fuel sources reducing the need for imported carbon-based fuel.

Activities

The McCauley family expanded its business activities into wood chipping in 2009. This was driven by a growing amount of available raw material that was not suited to firewood production. They invested in a small wood chipper to produce wood chip that could be used in the landscaping business and wider agricultural sector. This small wood chipper was not suited to producing the quality of wood chip required for biomass heating boilers.

McCauley Wood Fuels began to scope out wood biomass chippers that would suit their needs. As a business they are constantly watching industry trends and developments around new and improved equipment. The LEADER grant provided 50% support to the business to purchase a Kesla Oyj chipper and loader from Oakleaf Forestry.

The purchase of new wood chipping equipment has increased reliability, flexibility and provides capacity to meet periodic peaks in demand. It also enables the production of the high quality of wood chip required for biomass heating boilers.

This project, is part of on-going development of a wood fuel supply chain in the North-West region of Ireland. It marks a significant step forward in the development of the supply chain, reinforcing security of supply capability and ensuring improved biomass supply solutions can be provided into the future. The company is the sole wood chip supplier in the Leitrim area and the only Wood Fuel Quality Assurance Certified (WFQA) supplier in the region.

The company has focused on developing its core supply chain within the North-West region. This is due to the fact that high transport costs in this low-margin business mean that concentrating on the local geographic area makes economic sense.

Part of the business ethos of McCauley Wood Fuels is building a supply chain that is linked to locally-owned forestry. It is building a business by the farmer, for the farmer. Its preferred suppliers of raw materials are members of the Western Forestry Cooperative, which was established in 1985 by the dairy cooperatives in western counties in response to a need for support services for landowners considering forestry. The machinery provides a mobile, compact unit, enabling access to difficult sites; typical of those in the Leitrim where forestry sites are small with difficult access.



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Positive environmental impacts of the project are that it supports the deployment of renewable energy equipment and encourages carbon-neutral renewable energy production and usage in the region. An increase in the supply and use of renewable energy in the region can reduce dependence on imported fossil fuels.

It is crucial to have a well-established supply chain in place ahead of the new SSRH funding being introduced in 2019, to support the changeover to renewable heating options, and to encourage and enable uptake.

Main Results

- The company expanded its client base by securing two new customers who source significant volumes of biomass from the company.
- Due to McCauley Wood Fuels existence in the region's biomass supply chain, three local commercial companies have expressed an interest in biomass heating when the SSRH comes in. In the wider region a significant number of potential users are also expected but exact numbers are yet to be seen.
- The volume of wood chip processed by the company increased by 250% in the first year, and it has a total potential capacity increase of 500%, leaving room for future expansion.
- One machine operative position has been sustained. It is expected that an additional operative will be required, as the company increases its activities further in 2019.
- One additional haulage contractor is now moving wood chip out (customer product) and three more are transporting logs in (raw material).
- Raw material sourcing has extended from one main supplier and two smaller ones to four large suppliers and two smaller/private forestry companies.
- The wood chip processed each week displaces significant quantities of fossil fuel. For example, in week 47 of 2018, McCauley Wood Fuels had sufficient biomass processed and lined-up for delivery to displace the equivalent of 110 000 litres of oil. Next year, McCauley Wood Fuels intends to increase this to the equivalent of over 200 000 litres of oil per week.



Key lessons

The gradual development of McCauley Wood Fuels allowed its founders to learn about the market which the company was targeting, how it worked, what influenced it and expected growth patterns. It helped the company establish its supply chain and client base. It learned how to balance expected customer demands, stock levels, while also looking towards new client demands, industry changes and company growth.

The applicant felt the LEADER application process ran well and they had expected some delays along the way. However it did take longer than they had anticipated. The applicant notes how having a realistic timeframe is important, but also to have patience and stay with the process as it has been a huge support to the business.

Delays caused difficulties in sourcing the correct equipment within the required time scales. Ultimately the new equipment was not available to McCauley Wood Fuels until the end of the heating season and thus outside the time of peak production. Ideally, it would have had the new machine six months earlier as the company had to sub-contract another machine while waiting for the new one to arrive.

"Funding available through the LEADER measure has been a huge support to McCauley Wood Fuels. Biomass and forestry is a developing industry in Ireland. LEADER support has facilitated the business avail of new opportunities in this emerging, growing market. It has helped accelerate the development of McCauley Wood Fuels enabling the business to develop its supply chain, achieve greater scale and processing capacity."

Kenny McCauley, McCauley Wood Fuels

Additional sources of information

n/a

