

CASE STUDY



# **LANTMÄNNEN AGROETANOL PROVES IT PRODUCES BIOFUEL SUSTAINABLY**

**A CUSTOMISED AUDIT SOLUTION FOR THE EUROPEAN UNION RENEWABLE ENERGY DIRECTIVE**

**SGS**



Following the introduction of the European Union Renewable Energy Directive (EU RED) in June 2009 and the subsequent communications, biofuels producers began to look for ways to meet the requirements it laid out. Swedish Lantmännen Agroetanol immediately recognised that to continue operating successfully in the biofuels industry it needed to have transparent fully sustainable operations and evidence to prove it. With this goal in mind, by the end of 2010 Lantmännen Agroetanol had been assessed and certified to show that its biofuel production is truly sustainable and has a positive overall effect on the environment; protecting biodiversity at the same time as decreasing overall carbon dioxide emissions from fuel.

#### **LANTMÄNNEN AGROETANOL**

Lantmännen Agroetanol is a company within the energy sector of the Sweden based Lantmännen Group, which operates within the food, energy, machinery and agriculture sectors across the Nordic region. Owned, by around 36,000 Swedish farmers, Lantmännen is a large-scale farmers' co-operative that is the result of many

mergers of regional groups. Over a number of decades Lantmännen has developed and diversified into what it is today. Originally focusing on selling the food produce of the farmers and purchasing materials to help with this production, the organisation is now divided into four sectors, the most recently created being the 'Energy' sector. Recognising that Swedish farmers were producing a surplus of grain building a bioethanol plant was investigated. After consideration of the best strategic direction, a decision was made to go ahead with the building, enabling Lantmännen to make biofuel from the excess grain. With this, Lantmännen Agroetanol was born and the first production line was launched in 2000.

With the growing international demand for biofuel for the transport sector especially, Lantmännen Agroetanol has been well placed to grow with the industry. In Sweden, all regular petrol already includes 5% bioethanol. In 2008, a second production line was opened to enable the supply of an even greater volume of bioethanol to Lantmännen Agroetanol's large oil company customers who are producing low bioethanol blended petrol. The majority of Lantmännen Agroetanol's bioethanol goes to the Swedish market.

#### **ABOUT THE EUROPEAN UNION RENEWABLE ENERGY DIRECTIVE**

The European Union Renewable Energy Directive (EU RED) sets ambitious targets for member states in order that

an overall goal can be reached. This goal is that 20% of all energy used within the EU must come from renewable sources by 2020, with 10% of this being in the transport sector. For biofuels, the Directive outlines sustainability criteria that a biofuels' production must be assessed against and proven to comply with. If these criteria are not met, the biofuel is not considered to be sustainably produced and as such cannot count towards a member state's renewable energy target. By ensuring the criteria are complied with by all biofuels produced the EU hopes to limit the expansion and success of biofuels that either negatively effect biodiversity or do not result in greenhouse gas savings.

The sustainability criteria cover 12 factors: Legality; Human and Labour Rights; Local Food Security; Greenhouse Gas Emissions; Land Rights; Rural and Social Development; Planning, Monitoring and Continuous Improvement; Conservation; Use of Technology, Inputs and Waste Management; Water; Soil; and Air. While default values have been provided within the EU RED for greenhouse gas emissions, assessment against the complete list of criteria can most efficiently be achieved through the use of a voluntary certification scheme. Each scheme needs to have been approved by the European Union so that it is recognised as proving the sustainable origins of biofuels as well as their greenhouse gas reductions.



## THE ROAD TO SUSTAINABLE PRODUCTION

In November 2010, when Lantmännen Agroetanol needed its capabilities assessed, there were no approved industry-wide schemes available. SGS was therefore asked to develop and conduct a customised audit solution, tailored to the organisation, industry and location. By working with SGS the big question Lantmännen Agroetanol had of: 'How can we handle proving we meet the requirements of the EU RED?' could be simply and easily addressed.

Lantmännen Agroetanol had already begun the process of investigating the best method to meet the EU RED when the communications on biofuels were released in the middle of 2010. Working with an external consultancy it ensured each of its processes conformed to the requirements, before it reached the stage of Verification through SGS. Even at this early point Lantmännen Agroetanol was certain that its operations should only need a small amount of refinement rather than a complete overhaul as environmental

concerns are, and have always been, a major priority for the group. Moreover, Lantmännen Agroetanol takes responsibility for all parts of the production process and with this is able to control the variables that biofuels produced by supply chains with many different parties involved may find difficult to do. For Lantmännen Agroetanol the major aspect of compliance with the EU RED was to take its direction and intention and to use it to put a management and quality system in place through which current and future sustainability requirements can be shown to be met.

Sustainable production at the heart of Lantmännen Agroetanol

Lantmännen Agroetanol's focus on sustainable production is related not just to its complete supply chain control, but also to its location and infrastructure. With the bioethanol production plant located in an industrial area close to the harbour, there is very little product transport distance that needs to be covered before the bioethanol can be

shipped to customers. The same applies for the transport of the grain to the plant, as the production facility is located in the heart of the Swedish farming region. The production site has also been built adjacent to a combined heat and power plant, which provides the steam and electricity for the bioethanol production. Further to this, Lantmännen Agroetanol has given careful consideration to waste and the usage of by-products from the bioethanol production. From the same process that the bioethanol is produced a large volume of protein animal feed, mainly in the form of dry pellets, is produced for feed factories across Europe. There is also a small percentage of the waste that becomes biogas, which also has many commercial uses.

Proving Lantmännen Agroetanol's sustainable processes

One of the major challenges, when it came to Lantmännen Agroetanol meeting the sustainable production criteria, was that the grain used to produce the bioethanol comes from around 5,000 different farmers. To

comply with the EU RED it has to be proven that none of the grain has come from newly used land. Using geographical data and by working closely with the farmers network so that self-assessments were performed, Lantmännen Agroetanol, supported by the SGS expert Auditors, was able to prove the land use. In Sweden, less and less land is being used for farming generally but it was important that this data was collected as evidence. Similarly, the EU RED requires that carbon dioxide from farming activities falls below a certain level, a fact that had to be proven using a similar method of research and assessment.

Many of the criteria in the EU RED can be evidenced with expert knowledge and a document based procedure. As part of the auditing process SGS explains how this can be done in a specially prepared Audit checklist. The Auditors collect and verifying the necessary information in accordance with the structure this checklist provides.

### **AUDITING LANTMÄNNEN AGROETANOL**

In order to develop the customised audit solution that would assess Lantmännen Agroetanol's compliance with each of the criteria and levels detailed in the EU RED, SGS instigated the following procedure:

- Initially a checklist was developed, which detailed each criteria and the way that it could be proved that Lantmännen Agroetanol has reached the required level.
- To support the checklist development experts in the field of each of the criteria both supported and advised on the best evidence and how it could be identified.
- The checklist developed followed the EU RED in a logical order and resulted in a document that the SGS Auditors could use to assess the Lantmännen Agroetanol.
- With the checklist developed a team of SGS Auditors were put together who could then conduct the audit both through communication with Lantmännen Agroetanol and from a period of time spent on-site.
- As Lantmännen Agroetanol is based in Sweden it was important that one member of the expert team of Auditors was fluent in Swedish and as such could read and interpret the local legislation.
- The expert team then conducted a pre-audit, which permits checklist adjustment and preparation for the main audit. In the case of Lantmännen Agroetanol the main audit was performed directly after as part of the same visit due to the short timescale of the project brief and the high level of criteria compliance at the pre-audit stage.
- With all EU RED criteria met, Lantmännen Agroetanol was issued with a Limited Assurance Verification Statement that provides them with evidence that can be used to support their customer contracts.

### **THE END RESULT**

As a result of gaining the Limited Assurance Verification Statement verifying its compliance with the criteria required by the EU RED, Lantmännen Agroetanol has experienced a very positive reaction from its customers. Its ability to sell EU RED compliant material from the beginning of 2011 was necessary for the continued sale of bioethanol across Europe, but at the same time customers in Sweden recognised how quickly it had reacted to the regulations and the industry needs. From a customer perspective Lantmännen Agroetanol is forward thinking, serious and is able to provide reliable evidence of its production and sustainability. Ultimately, Lantmännen Agroetanol has built on the trust it has developed across its customer portfolio by taking what is has been telling them is true and proving it.

### **FURTHER INFORMATION**

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SGS:

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