

FOREST PRODUCTS MARKETPLACE:

What Biomass Sustainability Verification in the UK Means for US Suppliers

By Suz-Anne Kinney

A new biomass sustainability verification policy in the United Kingdom that is scheduled to go into effect in second quarter of 2014 requires electricity generators in that country to offer proof that the biomass they process originates in sustainably managed forests. The policy, announced by the UK's Department of Energy and Climate Change (DECC), sets out the government's recommendations for the biomass sustainability criteria that must be met by electricity utilities in order to receive renewables obligation certificates (the UK subsidy for renewable energy). The policy states that "biomass electricity will produce more than 70 percent greenhouse gas savings compared to fossil fuel alternatives." The EU is working on its own sustainability requirements, which are expected to be at least as strict as the UK's.

Currently, an estimated 6 million tons of wood pellets per year are shipped to the UK and EU from US Southern forests. This amount is expected to increase to 15 to 20 million tons by 2020.

Why should US suppliers take note of a UK law? One reason can be found in the response a representative for a UK utility gave at a recent meeting of the US Industrial Wood Pellet Association: "We are going to see a great deal of data being required of suppliers. We have canceled contracts because adequate data was not available."

US suppliers can and should play a role in helping their buyers demonstrate compliance with this policy by offering proper documentation of the forest source of the feedstock and the path the material took from the forest to the pellet mill. The simplest method for demonstrating compliance is to prove that raw materials were sourced from a certified forest. However, this is problematic for forests in the US South, which are expected to supply the bulk of UK demand. The Southern Group of State Foresters reported in 2011 that just 38 million of the South's 214 million forested acres—a bit less than 18 percent—are certified by the American Tree Farm System (ATFS), Forest Stewardship Council (FSC), or Sustainable Forestry Initiative (SFI).

Because the vast majority of timberland owners have small timber tracts—less than 50 acres—and because they make harvest decisions based on sawtimber markets in which no price premium for certified wood is offered, few will be inclined to submit to

the certification process. In most cases, therefore, alternative documentation will be needed.

Acceptable Evidence

The DECC policy, based on the UK government's Timber Procurement Policy (UK-TPP), establishes sustainable forest management criteria that requires one of



Drax Power Ltd

Three of the six generating units at the Drax Power Station, the UK's largest generating facility, are being converted to burn biomass, much of it in the form of wood pellets produced in the US, in place of coal. Each converted unit will provide enough renewable electricity to meet needs of more than 1 million homes.

two types of evidence to demonstrate at least 70 percent of timber or biomass was legally and sustainably harvested. It is important to note that these standards allow for mass balance—the mixture of feedstocks with different sustainability characteristics—at any step in the supply chain. The two evidence types are:

► **Category A evidence:** certification through either the FSC or a Programme for the Endorsement of Forest Certification (PEFC). The ATFS, SFI, and Canadian Standards Association certification programs are recognized under PEFC.

► **Category B evidence:** documentary evidence that includes chain of custody from the forest source to the end user. Examples include forest management plans, applicable legislation, supplier declarations, second-party supplier audits, and third-party verification.

DECC has announced that these standards will be based on, though not exactly the same as, those developed by the Central Point of Expertise on Timber (CPET), a UK bureau that supports the implementation of the UK-TPP. CPET currently accepts three types of Category B evidence. Proof of sustainability can be demonstrated through first- second- or third-party verification.

► **First-Party Verification:** The forest owner checks and confirms compliance.

Form: The landowner submits a supplier

declaration that provides information confirming compliance.

Includes: The definition of sustainability used by the organization or landowner, details about how these requirements are being met, the date and signature of the landowner or senior manager, and any relevant background information, such as policy commitments.

Evidence: Anything that provides specific information about the supply chain and control mechanisms in place, such as a signed letter stating the wood came from a legal or sustainable source, confirmation of membership in and organization or subscription to a voluntary code of practice, or ISO 9000 or ISO 14001 certificates (unless they include explicit and demonstrable evidence that the source is managed sustainably). A supplier declaration may contain any or all of these, but no single one of them can comprise the whole of the declaration.

Appropriate for: Because it is not in the interest of these suppliers to admit to forest sustainability and management issues, this level of verification is acceptable only for low-risk situations. Wood sourced in countries with consistent forestry legislation, clear legal use rights for forests, evidence that laws are enforced, and where corruption is not an issue is generally considered low risk. Although UK regulators and legislators in the have a high degree of confidence that US sources of biomass are legal and sustainable, whether or not the US will be held to this standard or a higher one will not be known until the next round of policy statements from DECC and CPET.

► **Second-Party Verification:** Checks carried out by the biomass purchaser—in this case, either the broker or the pellet facility.

Who: The credibility of the verifier or auditor is key. The further this person is removed from the forest landowner, the better, meaning the pellet mill is a better source of verification than the broker. This person is generally a professional auditor or an employee who has the expertise and technical ability for performing the work.

Methodology: Ranges from a formal audit to an informal conversation. This can entail a look at the entire way the forest is managed, verification of information in a supplier declaration, or a follow-up on particular issues or problems.

Includes: Information on how the verification was performed and by whom, including the way information was collected and confirmed.

Appropriate for: Medium-risk situations. Because suppliers have a stake in the ability of their organizations to make sure their buyers meet sustainability requirements, this is a step up from first-party verification.

► **Third-Party Verification:** A first- or second-party contracts with an independent, neutral, third party to conduct a formal verification.

Who: The auditing organization must conform to ISO Guide 65. If the government is not satisfied with the evidence provided, it requires verification from an organization that conforms to ISO Guide 65 and ISO 17011, or equivalent.

Methodology: Undertaken annually, the audit might look at the entire way the forest is managed, verify information in a supplier declaration, or follow up on particular issues or problems previously identified.

Includes: Who performed the verification, whether an individual or an organization; the frequency and date of verification; the requirements checked; and the methodology used.

Required for: (1) High-risk situations (i.e., countries with conflicting forest sector laws, a high incidence of illegal practices, political instability, and corruption); and (2) verification of sustainability.

No single policy is likely to resolve the ongoing controversy surrounding the export of wood pellets produced in the US to UK and EU power stations. Nonetheless, the DECC's policy recommendations—developed out of an objective understanding of forest economics and forest science—is a step in the right direction toward supporting new markets for US forests.

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LETTERS:

Hofmann Pine Plantations

The December 2013 issue of *The Forestry Source* had a news item, a commentary by Fred Cabbage, and a letter by Wink Sutton, all about the Hofmann Forest. As a long-time supporter of pine plantations, let me add my two cents' worth.

In my opinion, foresters did a fantastic job of increasing the Hofmann's stand productivity (i.e., site index). Due to drainage, *p*-fertilization, tree planting, genetic improvement, prescribed burning, and competition control with herbicides, the plantations are now more productive than natural stands. Prior to 1950, high water tables and frequent wildfires contributed to pond pine growth of about 1 green ton/acre/year. Many loblolly pine stands on this property now produce >6 tons/acre/year. The target rotation age has declined from >45

years to less than 21 years. As a result, 75 percent of the plantations are less than 21-years-old, and the average age is about 13 years. Pine plantations now cover about 68 percent (>53,000 acres) of the Hofmann (tinyurl.com/p5jagw9).

Prior to 1985, the property was leased for about \$0.38/acre/yr. When the lease was relinquished, some wondered if Champion International "could not manage Hofmann Forest at a profit, how could the Forestry Foundation, with input from NC State, be expected to do so?" (tinyurl.com/m9coxhx). However, direct management resulted in several changes that increased profits. Now, stumpage receipts from plantations (@ \$2,000/acre at harvest) might average \$100/acre/year (totaling \$5.3 million in 2010). The cost of establishing loblolly pine on histosols is about \$340/acre, and the target density is 435–538 seedlings/acre.

Julius (Doc) Hofmann (tinyurl.com/qdlbdjd) often said that if forestry was not profitable, it was not "good forestry." But how do foresters decide if the Hofmann Forest is profitable? Do we ignore the price of adjacent farmland (@ \$5,000/acre), assume the land will never be sold, assume plantations will be managed in perpetuity, assume stumpage prices don't change, and then calculate a textbook internal rate of return (i.e., IRR = discount rate that makes the land expectation value [LEV] equal zero)? A few years ago, 23-year-old loblolly plantations in North Carolina had a 7 percent IRR. In contrast, some landowners ignore both land value and previous management costs. This "estate owner's method" divides profit for 2011 (\$1.4 million) by costs for 2011 (\$3.3 million) to obtain a 42 percent value.

Alternatively, do foresters use Wink Sutton's approach and divide profit by the current

value of the land plus standing timber to achieve only a 1.3 percent return? This method (which includes current land value) results in a low "return" when the price of land is high. Indeed, the price of the Hofmann Forest has increased over time (from \$2.50/acre [1940] to \$253/acre [1983] to \$1,898 today). Assuming that 66 percent of the current price equals the stumpage price for standing timber at Hofmann, this could mean the value of clearcut areas is \$633/acre. In theory, if the calculated LEV value (using a rational discount rate) is greater than \$633/acre, then the current management regime would be the "higher and better use" for the land. My guess is that when a Milwaukee school district sold a 53-acre pine stand in 2002, no one bothered to compare the LEV with the \$8,490/acre offer.

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