

Today in Energy

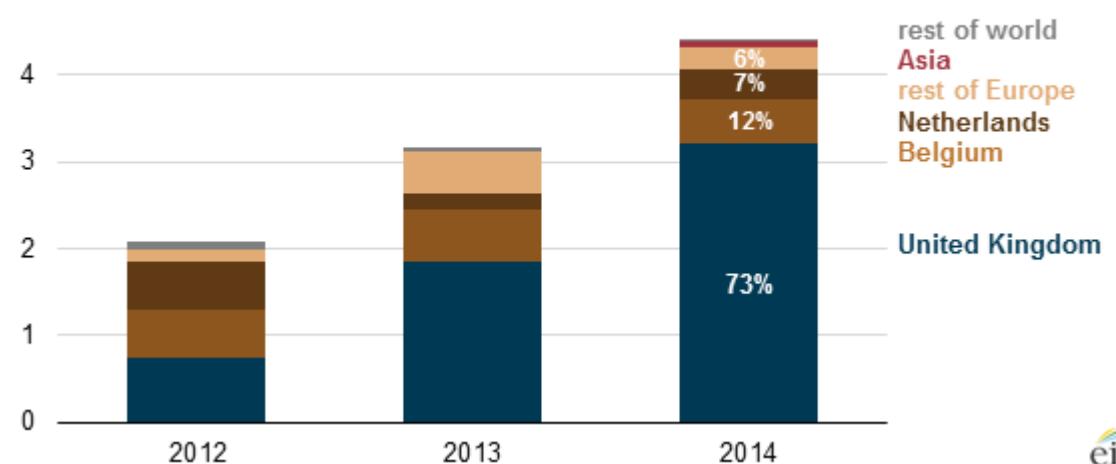
April 22, 2015

UK's renewable energy targets drive increases in U.S. wood pellet exports

United States wood pellet exports by destination, 2012-14

million short tons

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Source: U.S. Energy Information Administration, based on U.S. International Trade Commission

In 2014, almost three-quarters of all U.S. wood pellet exports were delivered to the United Kingdom (UK), mainly for the purpose of generating electricity. Overall, U.S. wood pellet exports increased by nearly 40% between 2013 and 2014, from 3.2 million short tons to 4.4 million short tons, as the United States continues to be the [largest wood pellet exporter in the world](#).

Canada, formerly the global leader in wood pellet exports, fell behind U.S. exports in 2012. According to the U.S. International Trade Commission, U.S. wood pellet exports accounted for more than \$500 million of trade in 2014. Wood pellets can be used for heating homes and businesses and as fuel for small-scale industrial boilers, but in the United Kingdom, Belgium, and the Netherlands, wood pellets are used predominantly for utility-scale electricity generation.

The main driver for growing wood pellet consumption in Europe is the European Commission's [2020 climate and energy plan](#), which aims to reduce greenhouse gas emissions and increase the contribution of renewables to total energy consumption in the European Union. Individual member states are assigned national renewable energy targets. The United Kingdom in particular is relying on the use of wood pellets in cofiring or dedicated biomass power plants as part of its compliance plan. Cofiring is the simultaneous combustion of two different fuels, while dedicated biomass plants run completely on biomass.

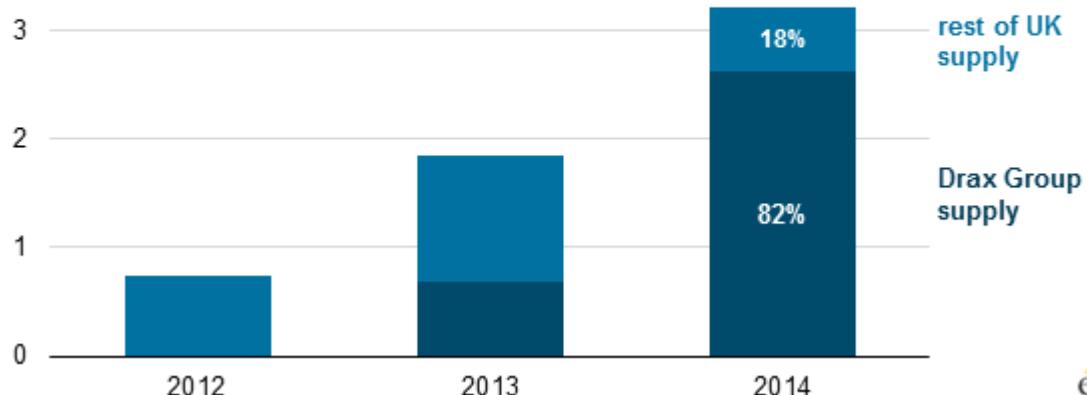
The United Kingdom's plan states that 15% of energy demand must be met by renewable sources by 2020. A [renewables obligation credit \(ROC\) program](#) has caused plant operators of large coal-fired power plants to retrofit existing units to either cofire with wood pellets or convert to dedicated biomass.

Data from the UK Department of Energy and Climate Change indicate that electricity generation from plant-based biomass (which includes wood pellets) increased 47% from 8,933 gigawatthours (GWh) in 2013 to 13,138 GWh in 2014, driven by the continuing conversion of the Drax power plant in north-central England from coal to biomass. In 2014, the Drax plant's wood pellet supply alone accounted for more than 80% of all of the United Kingdom's wood pellet imports from the United States, and almost 60% of all U.S. wood pellet exports to all countries. While the United States is the largest supplier of pellets to the UK, it is not the UK's sole supplier; in 2014, imports of U.S. pellets only met 58% of Drax's demand. Canada provided another 22% of the wood pellet supply. Only 2.8% of Drax's wood pellet supply was domestically produced.

United States wood pellet exports to the United Kingdom, 2012-14

million short tons

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Source: U.S. Energy Information Administration, based on U.S. International Trade Commission and the Drax Group

Note: No data are available for Drax supply in 2012

The Drax plant, located east of Leeds, England, is made up of six units that together are rated at nearly 4 gigawatts (GW) of electricity generating capacity. [Data released by the Drax Group](#) indicate that the first of six units were converted to dedicated biomass in 2013, and biomass provided 1.8 million short tons of fuel supply that year. A second unit was converted in 2014, and biomass supplied to the plant increased by more than 150%, providing 4.5 million short tons of fuel. There are plans to convert [a third unit by 2016](#).

To facilitate large volumes of pellet imports from the United States, Drax Biomass, a wholly owned subsidiary of the Drax Group, owns and operates several pellet manufacturing mills in the southern United States to supply Drax power plants in the United Kingdom. Drax's Amite Bioenergy and Morehouse BioEnergy plants in Mississippi and Louisiana, respectively, have a combined annual capacity of nearly 1 million short tons. Additional Drax pellet mills in the southern United States [are expected in the future](#), as well as new mills in [other international locations](#).

As part of an effort to track recent growth of the wood pellet market, EIA's proposed new [Densified Biomass Fuel Report](#) survey will track domestic pellet manufacturing. This survey is expected to begin data collection in 2016.

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