INTERNATIONAL TRADE ADMINISTRATION

2016 Top Markets Report Renewable Fuels Country Case Study

Canada

Canada will remain the largest market for U.S. ethanol during the 2016-2017 time frame. Federal and provincial mandates require more ethanol than the domestic refineries can produce, and the actual percentage of blending nationwide is slightly higher than the minimum 5 percent. With domestic production at maximum capacity and no increase foreseen, demand for U.S. ethanol should remain steady. In contrast to ethanol, Canada imports only a small amount of wood pellets, albeit U.S. producers have a considerable share. Canadian pellet suppliers also compete with U.S. pellet suppliers in Europe and Japan. Despite being a rival in the global wood pellet market, Canada is cooperative in dealing with trade barriers faced by the industry, recognizing common interests with U.S. wood pellet exporters.

Ethanol Rank	Wood Pellet Rank
1	6

Canada has traditionally been a reliable customer of U.S. ethanol. For nine out of the last 10 years, Canada has been the top market for U.S. ethanol exports. Trade with Canada is not restrained by tariffs, transportation or language barriers.

In 2013, there was a noticeable upsurge of U.S. exports to Canada, reaching over 50 percent of the total exports of U.S. fuel ethanol by the end of that year. This coincided with the dramatic reduction of ethanol exports to the EU market due to the EU's imposition of antidumping duties on U.S. ethanol and declining EU consumption. Since then, U.S. exports have become more diversified with rapid growth to smaller markets – in particular Korea, India and the Philippines – as well as regional hubs such as the Middle East. Still, Canada captured roughly 30 percent of U.S. ethanol exports in 2015.

Although it is still too early to tell, imports of U.S. ethanol to Canada may be surpassed by China, whose surge in the first five months of 2016 far exceeded the normal demand in Canada. However, year-to-date trade data as of August 2016 indicate that in terms of quantity, the two markets imported similar amounts. Regardless, Canada is seen as a steady customer whereas Chinese buyers are less predictable. Furthermore, the unit price of U.S. ethanol sent to China in 2016 has averaged 44 cents per liter compared to 70 cents per liter to Canada.

Two-way trade in wood pellets is a complicated story by comparison. While Canada does not rank highly compared to other markets in this report, it is worth examining how U.S. and Canadian exporters have competed for contracts in Europe, South Korea (prior to 2015) and Japan while also cooperating on sustainability certification issues.

Market Overview

Canada's blend mandates have led to success for U.S. exporters. The federal mandate of 5 percent renewable fuel content, together with higher

provincial requirements such as Saskatchewan (7.5 percent) and Manitoba (8.5 percent), contribute to the estimated minimum of 2.7 billion liters of fuel grade ethanol consumption per year.[i] However, the annual production capacity is likely to remain around 1.7 billion liters, which is not enough to meet domestic demand.[ii]

Furthermore, statistics suggest that due to discretionary blending, the actual blend rate exceeded the mandated level and peaked at about 6.4 percent of the gasoline pool in 2014. [iii] This expansion came at a time when ethanol was a significantly cheaper fuel than gasoline, thus encouraging discretionary blending. However, due to the precipitous decline in fuel prices and the closing of the price gap, blend rates in Canada have since begun dropping closer to the federal mandate of 5 percent.

By contrast, Canadian wood pellet consumption is relatively small, and Canada channels most of its production to overseas markets. Domestic consumption has been hovering around 200 million metric tons (MT) per year since 2013, but domestic production capacity continued to be added, reaching 3400 million MT per year.[iv] Pellet mills only produce 53 percent of Canada's total capacity, however.

Currently, coal-fired power plants in Canada are not using wood pellets because they are more expensive than coal.[v] New regulations for commissioning of new coal power plants took effect July 1, 2015, new efficiency requirements for new coal plants came into effect.[vi] However, natural gas is expected to replace most of the coal use.[vii] These regulations are also seen as encouraging combined cycle turbines as well as carbon capture and storage.

In spite of the limited use of wood pellets in Canada, domestic production of wood pellets in Canada is projected to increase after 2015. According to the Canadian International Merchandise Trade Database, if Canadian production increased to 100 percent of its capacity, then an additional 1 billion kg of wood pellets could be produced each year. This would bring total production to 3 billion kg per year.[viii]

According to the Wood Pellet Association of Canada, which is active in promoting Canadian wood pellet use both in Canada and abroad, demand can be expected to increase further if Canada makes additional efforts to reduce carbon emissions of power plants. Canada has committed to reducing its greenhouse gas emissions by 17 percent by 2020 compared to its 2005 levels. [ix] Some Canadian power companies have been considering the option of converting some of the currently coal-powered plants into co-firing coal plants that use wood pellets.[x] It has been estimated that if Canadian utilities began co-firing with 10 percent wood pellets, then the domestic consumption could potentially rise to 6 billion kg per year.[xi]

Until domestic demand within Canada is stimulated, global demand will determine how much production increases. Annual exports totaled about 1.6 billion kg in each of the past three years. In 2015, more than 1 billion kg of Canadian wood pellets were sent to the United Kingdom, and approximately 200 million kg were sent to the United States. (Figure 1) Meanwhile Canada also imported 10 million kg that same year, with 5.5 million kg coming from the United States and 5 million kg coming from Norway.

Figure 1: Canada's Wood Pellet Export Markets, 2015

Country	Volume Exported (kg)
United Kingdom	1,205,928,226
United States	205,743,232
Italy	85,513,095
Japan	80,203,440
South Korea	49,029,438
Singapore	583,688
Australia	266,316
Bahrain	203,200
Taiwan	172,515
Malaysia	65,743

Source: Global Trade Atlas

Challenges and Barriers

U.S. ethanol exports do not face any trade barriers in Canada. However, imports have no real potential for further growth unless ethanol blending targets are revised upward. With no changes in targets, use will slowly decline as the gasoline pool declines. The weak crude oil price and the strength of the U.S. Dollar against the Canadian Dollar have created

challenges for U.S. suppliers. Despite this, ethanol prices have dropped, and U.S. suppliers have some leeway to lower their prices. As a result, Canada will remain the strongest proven prospect for fuel ethanol in this report.

By contrast, the lack of significant domestic consumption of wood pellets in Canada will hamper any efforts to increase the U.S. market share. At this time, Canada's wood pellets industry is almost entirely focused on exports.

However, wood pellets from both the United States and Canada being shipped in large quantities to European markets are similarly affected by trade-restrictive sustainability certification issues (see the EU case study). As such, being in the "same boat" has led to close coordination between U.S. and Canadian exporters to ensure markets remain open to North American pellets.

Opportunities for U.S. Companies

Provincial policies, rather than increasing the federal mandate, could be the key to growing U.S. exports to Canada. Since environmental concerns have been the key driver of these policies and programs,[xii] it may be possible to encourage higher blend rates in Ontario, British Columbia and Alberta. These are among the most densely populated provinces and thus the greatest consumers of gasoline and are also provinces very concerned with sustainability and environmental quality.

Also of interest, emerging carbon markets in Canada will create opportunity, especially for suppliers of biofuels with lower carbon intensities. British Columbia has established a low carbon fuels market. In Ontario, there is a sustainability component calculated for how the ethanol is created that gives the obligated party credits and lowers its obligation. The greener the feedstock and process, i.e., use of corn stover to heat plants that make ethanol, the better the score. U.S. exporters who can leverage this system have a better chance of supplying to the obligated party. Also, Ontario is developing a climate change action plan that prioritizes transport emissions. Actions like these will incentivize low carbon intensity fuels, and more provincial initiatives can be expected in coming years.

Although U.S. wood pellet exports to Canada are not anticipated to be significant in the near term, one area to monitor closely in the next two years is whether the new emission regulations create more import demand from power utilities for wood pellets. However, since Canadian wood pellet mills are operating at 50 percent capacity, this scenario would be unlikely.

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[ii] Ibid.
[iii] Ibid.
[iv] Ibid.
[v] Murray, G. (2013, March 26). Pellet Awakening. *Canadian Biomass*. Retrieved from http://www.canadianbiomassmagazine.ca/news/pellet-awakening-4040 .
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[xi] Murray, G. (2010, August 23). Pellet Power. *CanadianBIOMASS*. Retrieved from: http://www.canadianbiomassmagazine.ca/pellets/pellets-for-canadian-power-1904
[xii] Ibid.