



PELLET PRODUCTION IN BC

The pellet industry in the Interior has grown rapidly in the past 10 years, and as of 2018, 13 pellet plants in BC have a combined capacity of over 1.7 million tonnes per year.

Total Canadian wood pellet production was about 2.7 million tonnes in 2017 representing about 9 per cent of the 32 million tonnes of global production. Growth in pellet production has averaged about 14 per cent for each of the past 10 years in Canada with the majority of production based in BC.

Pellets are fundamentally used for residential and industrial heating. Residential use is by way of pellet stoves or pellet fueled central heating systems where consumers purchase pellets typically by the bag. Industrial heating applications include large scale power boilers used in industrial and municipal applications. This can include using pellets as the sole fuel source or in applications where they are co-fired (i.e. burned along with other fuels such as coal). These industrial applications typically consume pellets purchased in bulk.

On a consumption basis, Europe is by far the largest consumer having 77 per cent of the total global market demand where the main uses are for power generation and heating of residential and commercial buildings.

Canada has relatively poor consumption statistics with an estimated domestic market of a mere 250-300,000 tonnes annually. Pellets are used domestically for power generation in Ontario and for residential and commercial heating mainly in areas off the natural gas grid. Pellet stoves dominate the domestic market, but boiler installations are increasing, especially in the North West Territories and

Atlantic Canada. And, with a significant cost advantage over the use of other fuel types (wood pellets at \$20.76 per gigajoule in Ontario vs heating oil at \$27.55 or electricity at \$42.78), it is no wonder many people are turning to pellets.

Canadian exports of wood pellets have grown from about 1.8 million tonnes of annual production in 2014 to 2.4 million tonnes in 2017 with a projected export volume of 3.6 million tonnes by 2020. And while the United Kingdom currently dominates the Canadian export market at over 60 per cent of all exports, Japan imports about 15 per cent of Canadian production (primarily from BC).

Japanese use of pellets is growing exponentially with current demand in the 6 to 8 million tonne range. However, growth expectations suggest 15 to 18 million tonnes of consumption could be possible by 2020. This is as a result of the Japanese policy changes that favour the use of wood pellets and other renewable energy sources over non-renewables and alternative sources in the wake of the 2011 Fukushima disaster and in an effort to meet national CO2 emission targets by 2030. This growth creates a significant opportunity for BC producers given it is in this market that Canada is already a leading supplier with Canadian imports representing 69 per cent of total imports in 2017.

Prices for pellets are as variable as the markets where they are consumed, how they are delivered (bulk or bag) and from where they are produced given freight is a large component of the pellet industry cost structure. The Argus Industrial Wood Pellet Index showed industrial pellet prices of \$210 USD per tonne CIIF (cost including insurance and freight)

delivered to a port in north west Europe. Given Europe's dominance in the consumption market, this is a commonly used benchmark for understanding the economics of BC produced pellets.

Pellets are made from a variety of wood sources including sawmill residual sawdust and shavings, planer sawdust, wood chip fines and other primary wood product generated residual fine fibres. However, increasingly, the use of wood waste from post-harvest roadside residual sources and occasionally chips produced from whole logs are a key source of fibre for some BC plants.

With the new policy direction coming from government on the Coast (and soon to come to the Interior) whereby a key goal is to reduce post-harvest wood waste and encourage that wood to come to market, pellet plants may be a key beneficiary. With Japanese demand growing and BC already well positioned in this market, the government policy initiative and growing market potential seems to be aligned and growth in the BC pellet industry could occur.▲

Jim Girvan's 40-year career includes work in forestry consulting, pulp and paper fibre management, commercial banking and as an industry advocate with the BC Truck Loggers Association. Jim is recognized as an authority in timber supply, economic and statistical analysis and forecasting as it relates to the forest sector. With a degree in forestry and an MBA, Jim combines his extensive field experience with financial and analytical training to provide support in the areas of timber supply, fibre flow modeling and analysis, industry forecasting, statistical analysis and forest policy.

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