

Emerging Rail Exports

Prepared by the Saskatchewan Chamber of Commerce

The Government of Saskatchewan issued the Saskatchewan Plan for Growth: Vision 2020 and Beyond in 2012. A core pillar of this plan was doubling the value of Saskatchewan's exports by 2020, moving from \$29.5 million to \$59 million. The extent to which rail transportation demand will increase in relation to the achievement of this goal depends on the mix of commodities that make up that growth, as well as how price (rather than volume) increases will contribute to export growth.

Conference Board of Canada's report, *The Impact of Rail Access on Saskatchewan's Export Potential*, created a plausible set of assumptions, which address 71 per cent of the \$59 billion target, to estimate the increase in railway originating tonnes for three broad categories of exports: potash, petroleum products, and agri-food products (which includes canola oil and meal in addition to crop production).

While these are the major segments of rail transportation, these export categories obviously do not incorporate everything that is or could be exported via rail. The ability to create accurate growth projections for this report was dependent upon a current, significant level of demand. Therefore, growing industries with anticipated demand were omitted from the future projections because of their current scale. This does not mean that these industries will not trigger an even larger increase in demand for rail service. The 20 million tonnes minimum growth in railway originating tonnes identified in the Conference Board report is truly just that, the minimum amount.

The additional 29 per cent of the Plan for Growth's target, or \$17 billion in export value, will likely come from growing, small volume, high value sectors that will also increase rail demand. Two such sectors: uranium and manufacturing exports are particular well poised for growth and higher railway utilization.

Uranium

Uranium is a high-value commodity relative to its weight; as such it could represent a significant portion of the Plan for Growth's value target. Approximately 85 per cent of Saskatchewan's uranium production is exported. In 2013, the value of uranium exports amounted to approximately \$1 billion. However, the quantity of uranium exported by the province (just under 8,000 tonnes) is dwarfed by the other commodities and, of the exported uranium, none has been shipped by rail since 2014. At present uranium exports are often trucked to port, although prior to a change in railway practices some companies had been transporting a significant portion of production by rail.

The trucking of uranium to port is primarily a function of railway policy as opposed to business preference or government regulations. In Canada railways have a common carrier obligation to transport all classes of goods, including dangerous goods, but the practical application of this rule is not as simple. Rail companies have exhibited varying degrees of reluctance to transporting uranium, from seeking to impose prohibitive conditions on shippers to outright refusing to transport the material.

It is important to note that while safety is a concern with the transportation of any dangerous good, uranium does not represent a risk over and above many other products. In fact uranium products are transported and handled in accordance to very specific, and successful, regulations focused on risk minimization and safety. This product has been transported safely in Canada for more than 50 years.

The issues regarding the transportation of uranium by rail are still being disputed as the industry is continuing to push the federal government for unbiased treatment of their product. This includes making its handling forced under the common carrier obligation and eliminating the ability of rail carriers to assign liability onto shippers.



If the federal government intervenes in these areas there could be a significant shift with regard to the uranium industry's demand for rail transportation. It is estimated that anywhere from 20-30 per cent of production could potentially move by rail.

Canada's uranium is used for the generation of nuclear power and the nuclear energy sector is experiencing considerable growth. There are currently 437 operable nuclear reactors around the world. By 2024, it is estimated that a total of 81 new reactors will be in operation, with 67 of these units under construction now. While Canada's primary export destinations for uranium have traditionally been the United States, Western Europe and Japan, the most rapid growth in this industry is taking place in developing economies, especially China and India.

To serve this increasing demand the industry has been building capacity. Saskatchewan's newest development, Cigar Lake mine, began production in 2014, with 0.34 million pounds (100% basis) of uranium concentrate coming from the mine after milling. This number will increase significantly as packaged production is expected to be 6 to 8 million pounds (100% basis) in 2015, and the mine has planned capacity of up to 18 million potential pounds per year with a mine life up to 2028. As Cigar Lake production increases so will the industry's demand for transportation. In addition to this, Canada has the potential for the development of other new mines to increase production. Although the market will dictate when uranium mine projects like Millennium, Midwest, Phoenix or others will be developed, transportation will be necessary at some point.

The impact of rail access on Saskatchewan's potential uranium exports is a unique problem. Beyond the access issues faced by other industries, uranium transportation has its own challenges related to railway transportation, including refusal to carry or additional liability allocation. Despite these concerns the industry recognizes the benefits of shipping by rail as opposed to truck and is pushing for the federal government to intervene. If action is taken on this front, Saskatchewan could be looking for additional rail transportation capacity to move its uranium.

Manufacturing

Historically, manufacturing has not been a large export for Saskatchewan in terms of quantity but the shape and structure of this industry is changing. From 2010-2014 Saskatchewan's manufacturing sales have steadily increased; the province had almost \$16.5 billion in manufacturing sales last year compared to just \$10.8 billion in 2010. A goal has also been set for the future of manufacturing in the province; the Saskatchewan Manufacturing Council has created Manufacturing 2025, an industry-led initiative to grow manufacturing sales in the province to \$25 billion by 2025. The provincial government is offering support for this goal by providing the sector with tax breaks and hiring incentives. Assuming the success of these initiatives, the demand for rail transportation by manufacturing shippers will also be impacted.

At present manufactured goods transported by rail account for a few hundred thousand tonnes (depending upon what products are included) relative to the provincial total of over 40 million tonnes. Obviously, on a comparative basis, manufactured goods make up a very small portion of the tonnes transported by railways, although their percentage of value is larger because these products are generally more valuable on a tonnage basis. This is not to say that Saskatchewan manufacturing companies do not rely on rail transportation.

Whether it is farm machinery to Australia or mining equipment to South America, in many instances rail remains the most cost effective transportation method available. Different than the bulk commodities addressed in the Conference Board report, manufactured goods are frequently shipped in containers. Shipping in containers means manufacturers may face a two way delay if there are rail based supply chain issues: outgoing products may not get to customers in a timely manner, and/or companies may be delayed loading additional product as they wait for the return of the containers.

The transportation of manufactured goods by rail on an individual company basis can vary significantly depending upon what market is being served, but the presence of these products in rail transportation is unavoidable and, with the new efforts put forward by the province and sector overall, will be growing steadily. This growth also needs to be accounted for as rail capacity is evaluated.

Conclusion

Saskatchewan's Plan for Growth has an ambitious export target of \$59 billion, hitting it will not be a single industry task. Saskatchewan's large volume industries: potash, petroleum products, and agri-food products will have to perform well, but the smaller segments of the economy also need to capitalize on their growth potential. As outlined above, uranium production and manufacturing are both well positioned for this future expansion.

To date these two industries have had very little impact on the demand for rail transportation in the province, nevertheless, while their volumes will continue to remain significantly lower than the core three, they will generate an increased demand that needs to be accounted for. The minimum increase of an additional 20 million tonnes forecasted in the Conference Board of Canada's report, *The Impact of Rail Access on Saskatchewan's Export Potential* should be taken as exactly that, the minimum demand the province will generate. There is the potential for so much more.



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