

## Canadian LPG exports to Asia to continue to grow

Canada has become an increasingly significant exporter of LPG to Asia over the past several years – especially propane to Japan and South Korea – and is expected to export substantially more to the region in the future with continuing growth in Western Canada’s liquids-rich gas production, additional LPG export terminals coming online on the west coast, and added fractionation capacity in Alberta’s Industrial Heartland (AIH).

AIH is a 582-square kilometer pre-zoned industrial region – the only one in Canada – in parts of three counties (Lamont, Strathcona and Sturgeon) and two cities (Fort Saskatchewan and Edmonton, the province’s capital) and is the country’s largest hydrocarbon processing cluster.

### Present Asian exports

Until 2017, all Canadian propane exports were shipped to the US by pipeline, railcar or truck, at which point 5,300 b/d, or 3.8% of annual exports of 138,000 b/d, were shipped outside the US, apparently to Asia to achieve higher netbacks via the 58,000 b/d propane and butane Ferndale export terminal in

Washington state [Canada Energy Regulator (CER) data does not identify final markets for Canadian LPG exports] (see Figure 1 and Table 1).

Poor prices caused this market shift by Western Canadian LPG producers, with a supply glut due to a lack of continental demand causing LPG prices at Edmonton to briefly drop into negative territory in 2015.

This led Calgary-based AltaGasto move into the LPG export terminal space, by partnering with Dutch infrastructure provider Royal Vopak on the Ridley Island Propane Export Terminal (RIPET) in the Prince Rupert, BC region – commissioned in 2019 and now with an expanded capacity of 92,000 b/d – and by assuming ownership of the Ferndale export terminal through its acquisition of former Canadian midstream company, Petrogas Energy, in 2020.

In April 2021, Pembina Pipeline, another Calgary-based midstream company, brought into service the only other propane export facility on the Canadian west coast to date, the 25,000

### VINCENT LAUERMAN

E-mail: vlauerman@geopolcentral.com

b/d Prince Rupert Terminal on Watson Island. These terminals have allowed Canada’s propane exports to “non-USA” destinations to increase to over 92,000 b/d in 2024, 42% of the 218,000 b/d total, based on CER data. According to a recent U.S. Energy Information Administration (EIA) report, Japan and South Korea are the major Asian customers of Canadian propane.

“West Coast export terminals have opened direct access to Asian markets, while producers in Alberta and British Columbia continue to provide stable supply at competitive prices,” Shannon Watt, president and CEO of the Canadian Propane Association, told *Chemical Weekly*. “Countries such as Japan and South Korea see Canadian propane as a secure, cleaner alternative to coal and oil.”

Part of the reason for Canada’s competitive propane prices is much shorter shipping times to East Asian markets compared to the competition, she added. “Shipping propane from BC is about a 60% base case time savings over the US Gulf Coast and 45% over the Arabian Gulf when going to these East Asia markets.”

At the same time, Canadian propane producers are continuing to benefit financially from exporting to Asian markets such as Japan and South Korea, according to AltaGas, opening the door for additional exports in the future. The company estimates the netback for shipping propane to Asia via RIPET was C\$6 per barrel, or 14.3 cents per US gallon, higher than if it had been shipped to the propane hub in Conway, Kansas, over the past two years.

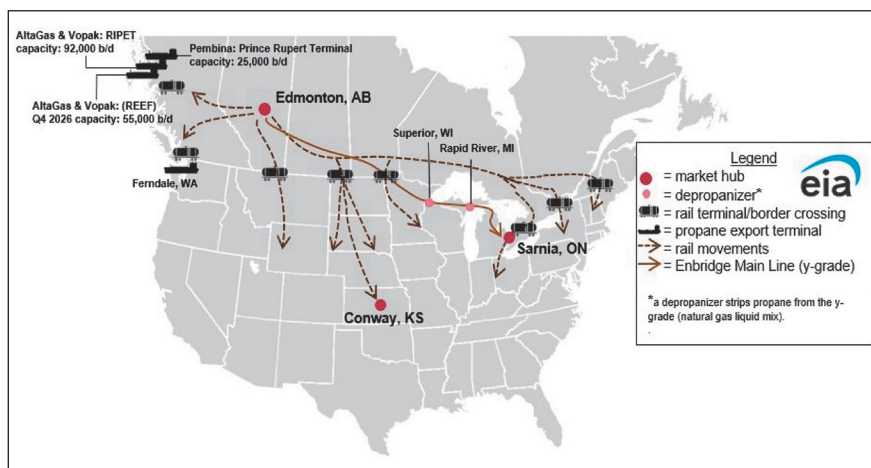


Fig.1: Canada’s propane export infrastructure (as of March 2025)

Source: EIA

**Table 1: Projects to export Canadian LPG to Asia**

Name	Location	Owners	Capacity (kb/d)
<b>Operating Projects</b>			
Ridley Island Propane Export Terminal (RIPET)	Prince Rupert, BC	AltaGas & Royal Vopak	92
Prince Rupert Terminal	Prince Rupert, BC	Pembina Pipeline	25
ALA Energy Ferndale Terminal*	Ferndale, WA	AltaGas	58
<b>Sub-Total</b>			<b>175</b>
<b>Under Construction and FID</b>			
Ridley Island Energy Export Facility (REEF – 4Q26)	Prince Rupert, BC	AltaGas & Royal Vopak	55
REEF Optimization One (FID – 2H27)	Prince Rupert, BC	AltaGas & Royal Vopak	25
Trigon Pacific LPG (FID – late 2029)**	Prince Rupert, BC	Trigon Pacific Terminals	79
<b>Sub-Total</b>			<b>159</b>
<b>Proposed Projects</b>			
REEF Optimization Two	Prince Rupert, BC	AltaGas & Royal Vopak	60
<b>Total</b>			<b>394</b>

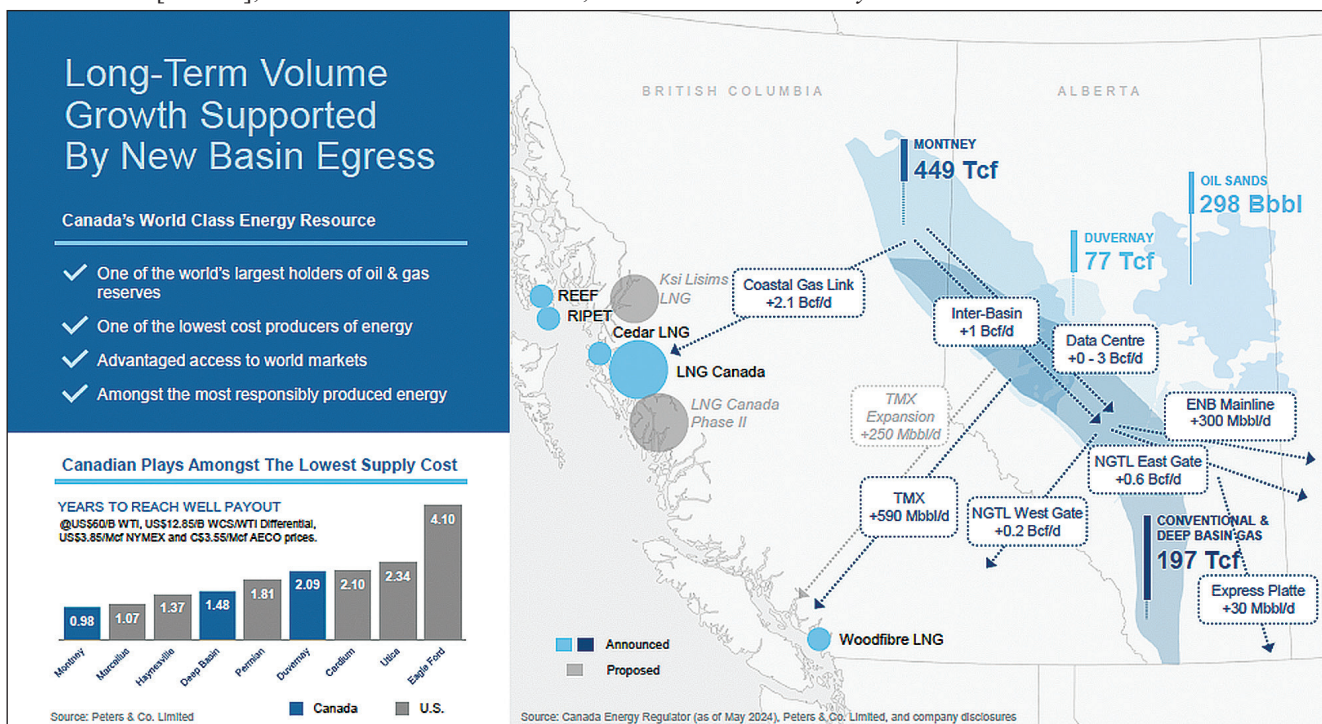
\* Exports LPG sourced from both Canada and the US.

\*\* Assuming the Prince Rupert Port Authority revokes the LPG export exclusivity rights of AltaGas and Royal Vopak.

“Also, a valid point to note is that only propane is currently exported from Canada [to Asia],” Swetha Siva-

swamy, principal analyst oil & gas at Edinburgh-based consultancy Wood Mackenzie, told *Chemical Weekly*.

“We see potential for butane export terminals to be added in the future.”



**Fig.2: Long-term volume growth supported by new basin egress**

Source: Keyera Investor Presentation, September 2025




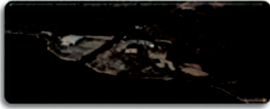


Project Summary		Export Capacity	Associated LPGs <sup>1</sup> (Propane / Butane)
	\$48B <sup>2</sup> Phase 1 LNG export facility in Kitimat, BC with an expected 2025 in-service date.	 Phase 1 14 mmtpa Phase 2: + 14 mmtpa	Liquids Per Phase ~50 Mbbl/d 20-25 Mbbl/d
	\$6.4B LNG export facility in Squamish, BC with an expected 2027 in-service date.	 2.1 mmtpa	7-8 Mbbl/d 3.5 Mbbl/d
	\$10B floating LNG export facility in Gingolt, BC with an expected 2029 in-service date.	 12 mmtpa	40-45 Mbbl/d 18-22 Mbbl/d
Others (Cedar, Tilbury I/II)	<ul style="list-style-type: none"> <li>\$4.0B Cedar LNG (Late 2028, Haisla Nation, Pembina)</li> <li>\$0.6B Tilbury LNG 1B Expansion (2028, Fortis)</li> <li>\$3.3B Tilbury LNG Phase 2 (2028+, Fortis)</li> </ul>	6.2 mmtpa	20-24 Mbbl/d 9-11 Mbbl/d

Fig.3: Canadian LNG developments drive adjacent opportunities

Source: AltaGas Corporate Investor Presentation, July 2025

### Future Asian exports

“Canada has been ramping up LPG exports to Asia in recent years, with plans for substantially more with natural gas production from the liquids-rich Montney, Duvernay and Deep Basin expected to climb substantially through 2040,” Watt said.

The country has the fifth largest technically recoverable shale gas resources in the world, while Canadian plays have some of the lowest supply costs in North America including the Montney with the lowest costs, according to Calgary-based energy investment bank Peters & Co. (see Figure 2).

“The anticipated start-up of LNG Canada in 2025 has bolstered Wood Mackenzie’s gas production outlook, both in the short-term and the long-term,” Sivaswamy said. For example, “Montney production is projected to nearly double from 2025 levels by the early 2040s. Since NGL/LPG are a byproduct of oil and gas production, we see robust growth in them as well.”

On that note, Canadian LPG production could increase between 238,000

b/d and 264,000 b/d from BC LNG export projects coming online alone over the next handful of years based on AltaGas analysis (see Figure 3).

As a result, “there will be a glut of propane and butane [in Western Canada], Sivaswamy said. “Overland exports to the US help balance the market, but the economics of exporting to international destinations are better.”

On the flip side, Woodmac is projecting Asian propane import demand to increase 42% to about 2.4-million b/d between 2022 and 2040, and Asian butane import demand to jump 48% to over 1.6-million b/d over this period.

In addition, anti-free trade policies by the second Trump administration are recreating even greater potential for Canadian LPG exports in both current and new Asian markets, according to Watt and Sivaswamy.

“It’s too early to gauge the full impact of any new US trade measures, but Canada’s reputation as a dependable and trustworthy trading partner positions it well,” Watt said. “If trade fric-

tions elsewhere disrupt supply, Asian buyers are likely to turn to Canada for long-term, stable propane contracts – particularly in Japan, South Korea, and emerging Southeast Asian markets.”

“If trade tensions persist, China might be willing to increase its propane imports from Canada,” Sivaswamy added. As a result, four additional LPG export projects are presently moving forward on the BC coast. They have the potential of more than doubling Canada’s LPG export capacity to Asia to 394,000 b/d including capacity from the Ferndale terminal in Washington state, and almost tripling it to 336,000 b/d when excluding it (see Figure 1).

The Ridley Island Energy Export Facility (REEF), another joint venture between AltaGas and Royal Vopak, involves three projects at various stages of development. The C\$1.35-billion initial project, with design capacity of 55,000 b/d of propane and butane, is presently under construction and expected to come online near the end of 2026.

During its third quarter earnings

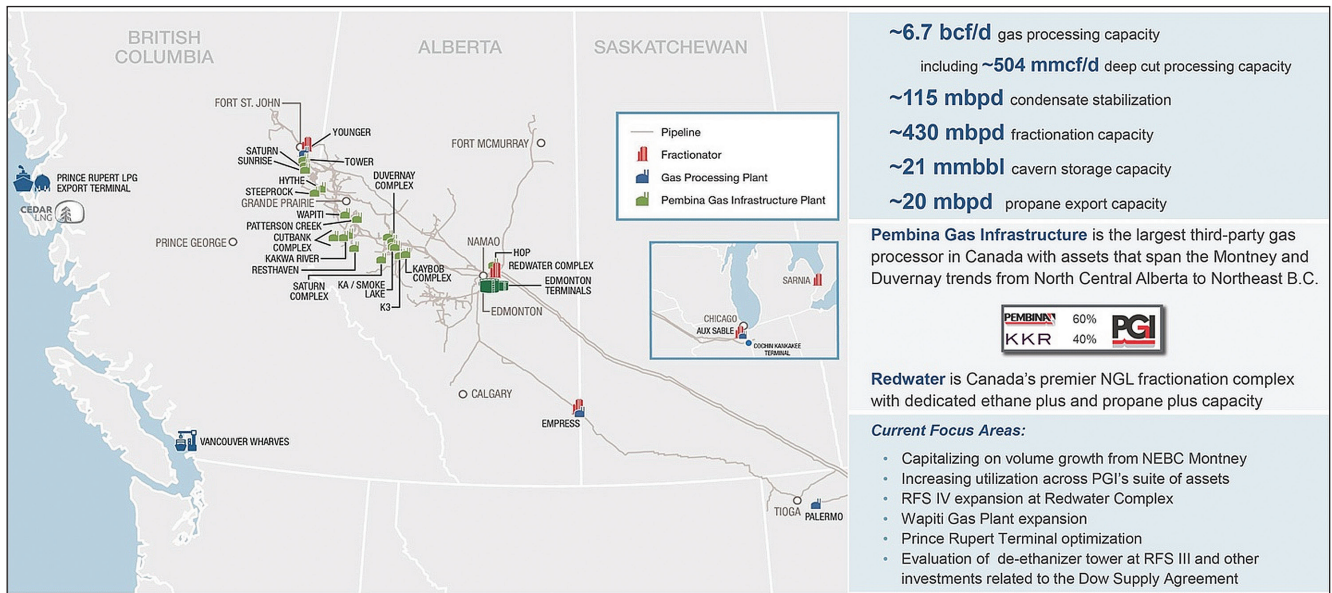


Fig.4: Extensive gas processing, fractionation, storage and export facilities

Source: Pembina Pipeline Corporation Investor Presentation, November 2025



Fig.5: Plains acquisition extending Keyera's integrated value chain

Source: Keyera Investor Presentation, September 2025

call on 29 October, AltaGas announced the joint venture had sanctioned the REEF Optimization One project. At an estimated capital cost of C\$110-million, the project is to increase REEF's original capacity by about 25,000 b/d, with an in-service date slated for the second half of 2027.

AltaGas and Royal Vopak are also advancing, engineering, permitting and stakeholder relations work for the REEF Optimization Two project, which would add an additional 60,000 b/d to the first two projects.

In addition, on 11 June, Trigon

Pacific Terminals announced a positive FID for its 2.5-million mt/yr (79,000 b/d) Trigon Pacific LPG project. The C\$750-million project is to repurpose a thermal coal export terminal on Ridley Island to export LPG by late 2029, but the fate of the project is uncertain because the Prince Rupert

Port Authority previously provided AltaGas and Royal Vopak exclusive rights to export LPG from the port. Trigon sued the port authority in November 2023, but the matter remains before the courts.

It should be noted that Pembina Pipeline has no plans to expand LPG export capacity of its Prince Rupert Terminal at the present time, however during the company's second quarter earnings call on 8 August, Scott Burrows, the company's president and CEO, did not rule out future expansion to the terminal.

"As we secure more barrels, we will look to where the optimal markets are and that could be further barrels off the west coast or it could be to other markets depending on the time and where the markets are open at that time," he said.

### The Heartland hub

"Alberta's Industrial Heartland has been critical as the hub for fractionation, propane supply, and storage, that supports exports through British Columbia," Watt said. "The region's infrastructure ensures consistent volumes for terminals on the coast. As demand for Canadian LPG grows, Alberta's Industrial Heartland will remain essential – anchoring the supply chain that connects Western Canada's natural gas liquids production to customers across the Pacific."

"AIH in Canada can be considered an analogue to Mont Belvieu in the US, where the majority of the fractionation capacity is built," Woodmac's Sivaswamy added. "We expect AIH to continue to serve the needs for Canadian NGL processing and fractionation in the future, with upcoming [fractionation] projects to be in the region as well."

The two major NGL fractionators in Canada are Pembina Pipeline and Keyera Corp., once its C\$5.15-billion acquisition of basically all of Plains All American's Canadian NGL assets – and select US assets – is completed in the first quarter of 2026. Pembina presently has about 430,000 b/d of fractionation capacity, with almost half of it at a single complex in AIH, while about 60% of Keyera's soon-to-be 284,000 b/d total capacity is in the region (see Figures 4 and 5).

"Alberta's Industrial Heartland is already the country's energy processing hub, and its potential is only growing," Chris Scherman, Senior Vice President, marketing and strategy officer at Pembina, told *Chemical Weekly*.

"At the center of it is Pembina's Redwater complex, a premier NGL fractionation facility. Redwater currently handles about 200,000 barrels per day of fractionation capacity, and with our RFS IV expansion underway, that will grow to roughly 256,000 barrels per day. The project is expected to be in service on time in the first half of 2026."

"While we're always evaluating opportunities, additional growth at Redwater would ultimately depend on continued production increases across the WCSB [Western Canadian Sedimentary Basin] and the needs of our customers," he added.

"When the market signals are right, Redwater is well positioned to grow again. The complex does have room for potential expansion, which would be capially efficient given the economies of scale within the facility. In addition, the site's extensive rail loading and storage infrastructure make future expansions highly efficient, while our connection to global markets continues to strengthen."

A key component of Keyera's growth strategy – the company is one of two fully integrated well-head to end-product marketing NGL service providers in Canada, along with Pembina – has been the expansion of its C3+ fractionation capacity, with plans to increase its post-Plains acquisition capacity of 284,000 b/d by more than half over the next several years by undertaking three projects in AIH.

On 23 July, Keyera filed an initial project description with the Impact Assessment Agency of Canada (IAAC) outlining its plans for the proposed Josephburg Project, a 100,000 b/d fractionator to separate NGL from its KAPS pipeline into higher value product streams. Keyera is targeting the Josephburg Project to be online by the third quarter of 2030, but at this early stage has yet to release a cost estimate for the project.

In addition, on 15 May, Keyera announced it had sanctioned the Keyera Fort Saskatchewan (KFS) Frac III project, a 47,000 b/d expansion to the company's 66,000 b/d KFS plant.

The project is expected to cost C\$500-million, including investments to enhance egress capability at the plant. Detailed design is underway and early works construction activities have kicked off at site, with the facility targeted to enter service in mid-2028.

Finally, on 13 February, Keyera announced the sanctioning of the KFS Frac II Debottleneck project to add approximately 8,000 b/d of capacity to this plant at a cost of C\$85-million. Fabrication of major equipment and on-site construction began this summer, with the additional capacity expected to come online in mid-2026.