



Issue brief Canadian west coast oil as a hedge for East Asian energy security

By Joseph Webster

■ Introduction

The Iran war has fundamentally changed global oil security architecture and forced energy-importing countries to face their vulnerabilities to severe and prolonged supply disruptions. The economies of East Asian democracies are among the most at risk because they rely heavily on oil and gas imports. As Japan, South Korea, and Taiwan assess their long-term options for securing new, reliable energy supplies to buffer against future geopolitical uncertainties, Western Canadian crude is emerging as a compelling alternative, particularly as a major pipeline project advances.

Pacific Link (formerly known as the West Coast Oil Pipeline) is a project proposed by the Oil Sands Alliance (OSA), which consists of Canada Natural Resources Limited, Suncor Energy, Cenovus Energy, Imperial Oil, and ConocoPhillips, along with the federal and provincial governments.¹ If completed, the project would carry up to 1 million barrels per day (b/d) of crude oil

from the Albertan oil sands and deliver via pipeline to a deep water port on Canada's west coast capable of supporting the drafts of efficient very large crude carriers (VLCCs); it would then be exported.² In tandem with Pacific Link, Canada would reduce emissions by 6 million tonnes per annum (mtpa) through the Pathways carbon capture and storage (CCS) project.³ While Pacific Link has been on the drawing board for decades, it is gaining momentum: the Canadian federal government, the province of Alberta, and the Oil Sands Alliance announced on July 2, 2026, that they had concluded a trilateral memorandum of understanding (MoU) advancing the project.⁴

Compared to East Asia's other supply options, Canada's west coast offers several advantages. Unlike Middle Eastern alternatives that must traverse dangerous choke points, volumes from Canada's west coast can reach the open ocean easily.

1. "Advancing Emissions Reductions and Expanded Export Capacity: The Trilateral Memorandum of Understanding between Canada, Alberta and the Oil Sands Alliance," One Canadian Economy, last updated July 13, 2026, <https://www.canada.ca/en/one-canadian-economy/news/2026/07/advancing-emissions-reductions-and-expanded-export-capacity-the-trilateral-memorandum-of-understanding-between-canada-alberta-and-the-oil-sands-all.html>.
2. "West Coast Oil Pipeline Project: Submission by the Government of Alberta to the Major Projects Office for Listing under the Building Canada Act," Government of Alberta, July 2, 2026, <https://open.alberta.ca/dataset/a529e3da-6368-43d7-af43-74b1773be517/resource/6e43e4b4-3dfe-4c28-b723-116b6cab19ea/download/west-coast-oil-pipeline-project-submission-to-mpo.pdf>.
3. Lauren Krugel, "Agreement Reached on Multibillion-Dollar Pathways Carbon Capture and Storage Project," Canadian Press, July 13, 2026, <https://www.cbc.ca/news/canada/edmonton/alberta-ottawa-pathways-oilsands-carbon-capture-9.7268392>.
4. "Advancing Emissions Reductions and Expanded Export Capacity."

Pacific Link would also avoid canal infrastructure, such as the Suez Canal or the Panama Canal, that requires tolling fees and cannot accommodate the drafts of VLCCs and other large vessels that offer sizable economies of scale.⁵ In addition, climate change raises the risk that the Panama Canal, a major export route for US crude oil, will not be able to accommodate marine traffic in the future, potentially constraining the ability of US Gulf Coast oil exporters to ship to Asia.⁶ Indeed, one benefit of crude exports from Western Canada is their geographical proximity to East Asia. Relative closeness translates into shorter sailing distances, lower transit costs, and no canal usage, all of which could prove useful in a crisis. Finally, Canada is a stable, rule-of-law country deeply aligned with other democracies, including those in East Asia.

Despite its energy security benefits, a Canadian west coast pipeline and its associated infrastructure face hurdles. The primary—but not only—challenge is commercial. On the supply side, Canadian crude oil must outcompete other producers, including those in the geopolitically contested Middle East, which can produce barrels at ultra-low cost during periods of peace. In addition, transportation electrification might curb global oil demand—including in East Asia—in the decades ahead.⁷ Importantly, heavy oil sands crude must be upgraded and processed to meet East Asian crude oil demand, which is disproportionately oriented toward petrochemicals. Accordingly, either East Asian refineries or Canadian oil export infrastructure must accommodate these processing requirements and will incur expenses. Finally, but importantly, Pacific Link must secure financing and local, interprovincial, and, to an extent, global social license to operate. These challenges are not insurmountable and should be weighed against the geopolitical and energy security benefits of the west coast pipeline, but they must be addressed.

With East Asian democracies facing large and growing threats to their energy security, Canada's Pacific Link deserves due consideration. Given the pipeline's potential resiliency benefits, Japan and, especially, Taiwan should consider investing in coker upgrades that would enable crude oil to be processed for both existing and future volumes from Canada. South Korea's refineries, meanwhile, do not require upgrading to process Canadian crude and should continue to increase

volumes from Canada. By gradually shifting their imports to North America, Taiwan, Japan, and South Korea would strengthen their resiliency in a crisis and reduce the risks that a future Middle East oil shock will severely damage their economies or even produce conditions that amplify physical threats.

■ East Asia's oil insecurity

East Asia and North America are linked in oil markets. North America has become a net oil exporter due to the tight oil revolution in the United States and booming oil sands production in Canada, especially in its province of Alberta. Conversely, the Asia-Pacific is the world's most import-dependent region, consuming nearly 40 million b/d in 2025 while producing only 7.4 million b/d, per the Energy Institute Statistical Review, leaving it with a production deficit of more than 32 million b/d.⁸ Asia's oil import dependency will decline eventually due to the electrification of transportation. In the near to medium term, however, its import needs will continue to rise.

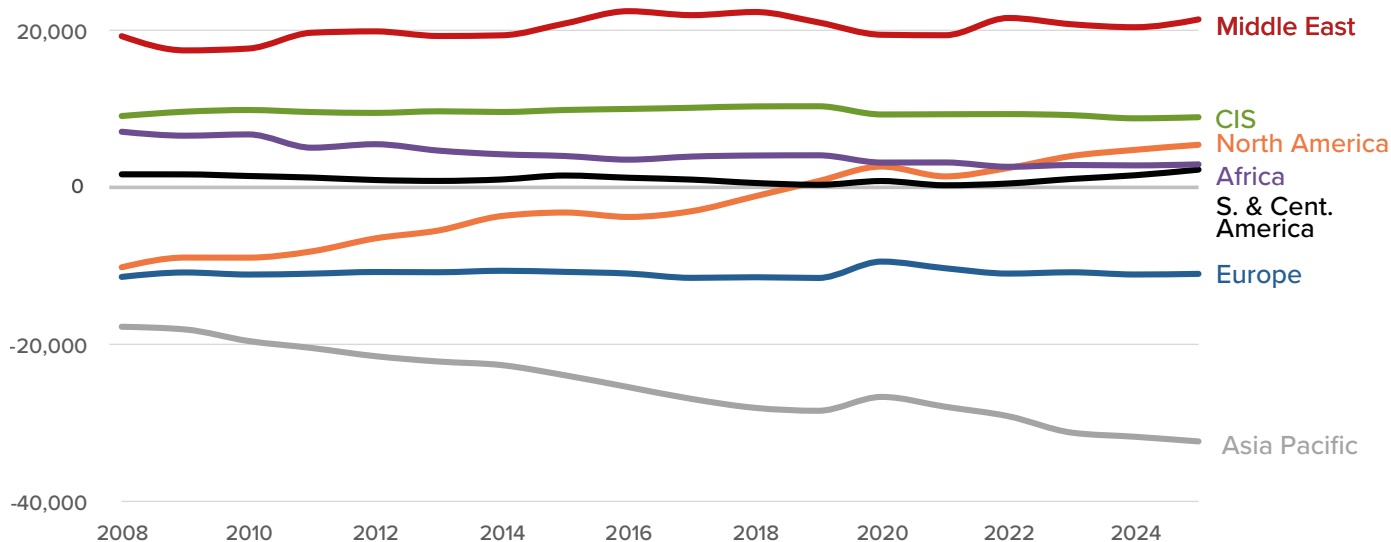
East Asian democracies are particularly reliant on oil imports. They produce virtually no oil indigenously, leading to reliance on maritime crude oil imports, especially from the Middle East. In 2025, Japan, South Korea, and Taiwan relied on imports from the Middle East for about 79 percent of total volumes, per Kpler data. The three economies imported only 16,000 b/d of crude oil from Canada in 2025, or less than 1 percent of their total imports.

East Asian democracies' reliance on Middle Eastern oil poses security risks, given the evolving war between the United States and Israel and Iran and the potential for a future regional conflict. While the Middle East will remain central to global oil security, any future outages will disproportionately impact East Asian democracies.

The ongoing war illustrates these risks. In the early days of the 2026 Middle East conflict, shipments to East Asia declined sharply and suddenly, raising the risk of physical outages and price spikes and forcing rationing.⁹ Crude oil transiting the Strait of Hormuz or the Bab al-Mandeb fell more than 75 percent from January to April 2026, per Kpler data.

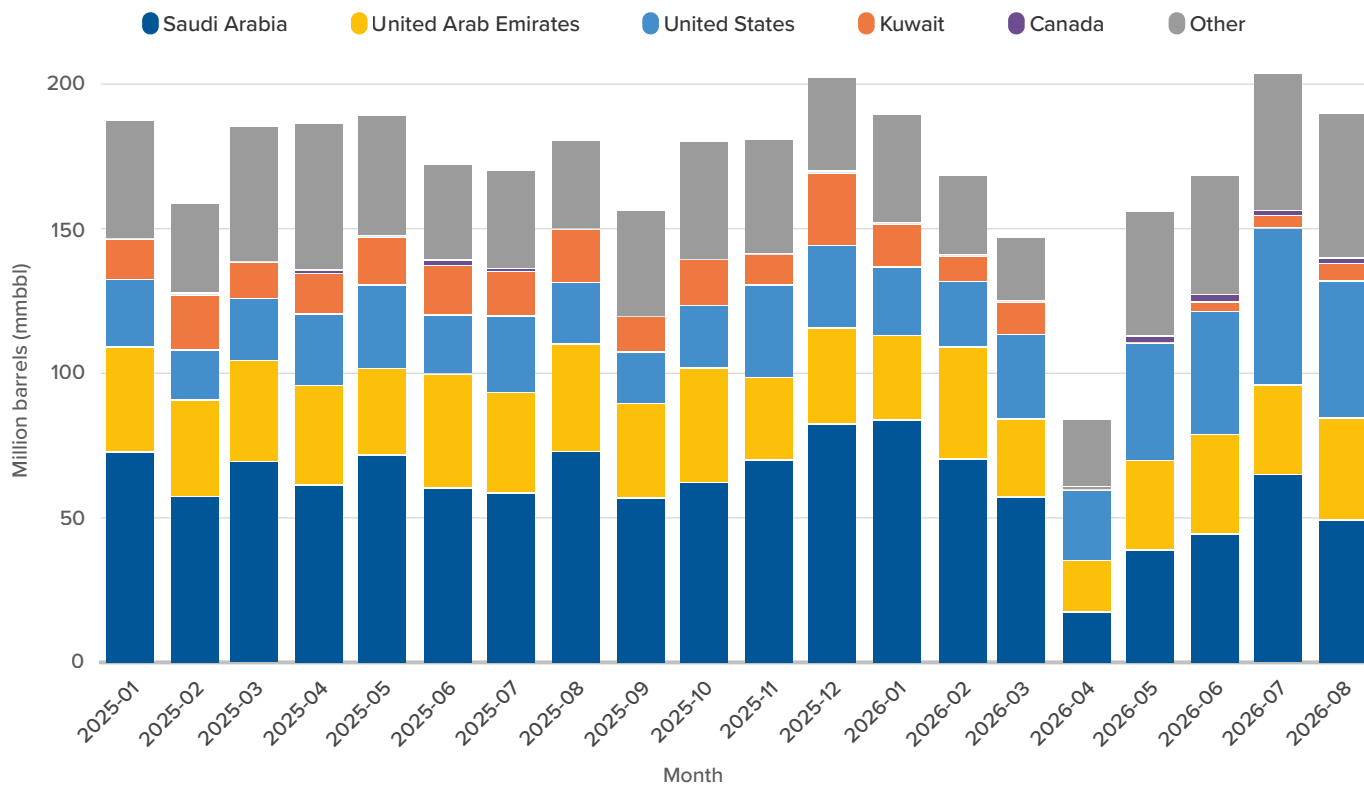
5. T. Mason Hamilton, "Panama Canal Expansion Will Allow Transit of Larger Ships with Greater Volumes," US Energy Information Administration, September 17, 2014, <https://www.eia.gov/todayinenergy/detail.php?id=18011>.
6. Monica de Bolle, "Gatun Lake's Lower Water Levels Imperil the Panama Canal in 2024," Peterson Institute for International Economics, March 14, 2024, <https://www.piie.com/research/piie-charts/2024/gatun-lakes-lower-water-levels-imperil-panama-canal-2024>.
7. "Batteries and Secure Energy Transitions," International Energy Agency, April 2024, <https://iea.blob.core.windows.net/assets/cb39c1bf-d2b3-446d-8c35-aae6b1f3a4a0/BatteriesandSecureEnergyTransitions.pdf>.
8. "Statistical Review of World Energy 2026," Energy Institute, 2026, <https://www.energyinst.org/statistical-review>.
9. Joseph Webster and Reid I'Anson, "The Strait of Hormuz Closure Forces a Choice: Ration Oil Now or Pay a Steep Price Later," Atlantic Council, April 21, 2026, <https://www.atlanticcouncil.org/dispatches/the-strait-of-hormuz-closure-forces-a-choice-ration-oil-now-or-pay-a-steep-price-later/>.

Figure 1: Regional production-consumption oil balances (in thousand barrels per day)



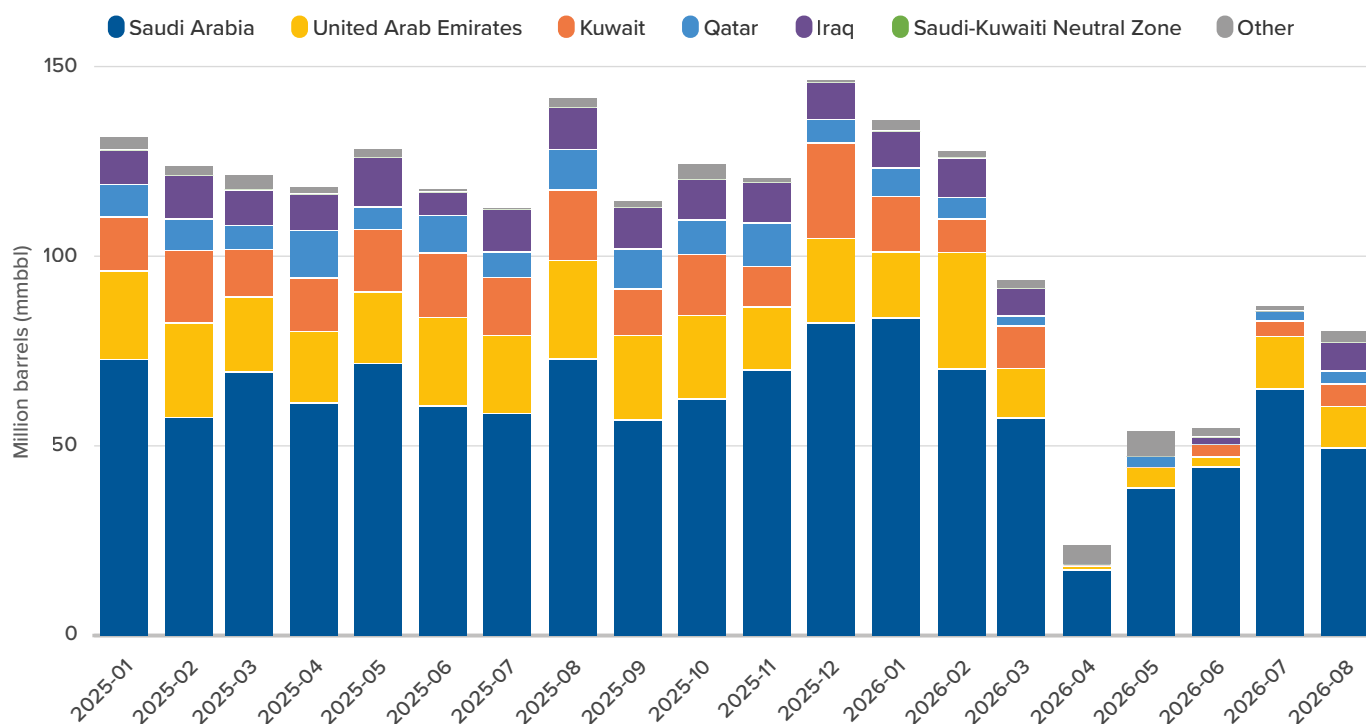
Source: Energy Institute Statistical Review Note: Balances may not sum to zero, as refinery processing gain is excluded, stock draws can occur. Graph shows crude oil and all liquids (including NGLs).

Figure 2: Crude oil and condensate imports by origin: Japan, South Korea, and Taiwan (monthly)



Source: Kpler.

Figure 3: Crude oil imports via the Strait of Hormuz and Bab el-Mandeb: Japan, South Korea, and Taiwan (monthly)



Source: Kpler and author's calculations. Countries included are those with flows via the Strait of Hormuz or Bab el-Mandeb as per Kpler.

While import volumes have recovered due to Saudi Arabia's rerouting of crude oil to its Yanbu terminal on the Red Sea, the entire region faces a sustained threat of conflict if Hormuz, Yanbu, or Bab al-Mandeb are closed.

Though the worst-case scenario has been avoided for now, a graver crisis remains possible.

Iran could seek to close the Strait of Hormuz or the Bab al-Mandeb again in future conflicts and will continue to possess substantial capabilities—naval mines, drones, and anti-ship cruise missiles—that have proved difficult to counter with existing capabilities. If another Middle Eastern war erupts, transit across the waterway could once again become impractical due to the risks of kinetic strikes or because transit will be too expensive to insure.

A future Middle Eastern conflict, regardless of whether its cause is regional, would have global consequences and parameters. Beijing might seek to exploit—or, less likely, stimulate—a future Middle East crisis because it holds a major energy security advantage over its rivals in Taipei, Tokyo, and

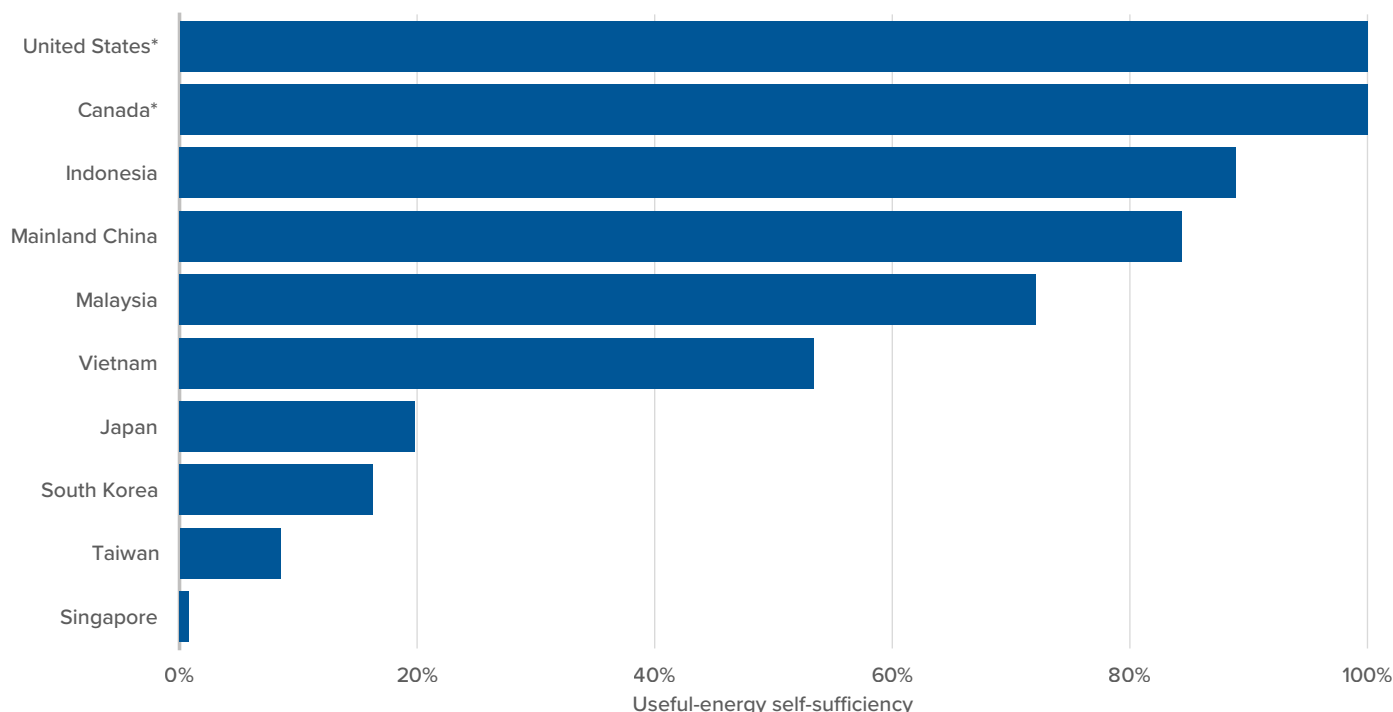
Seoul. As seen in Figure 4, Japan, South Korea, and Taiwan all have final energy self-sufficiency ratios below 20 percent; China's stands above 80 percent. While China's oil import dependency stands at about 70 percent, this figure overstates its vulnerability to a blockade: Beijing sources considerable overland volumes from Russia and Kazakhstan, can increase overland flows from Russia relatively easily, and can repurpose its complex refineries to maximize production of transportation fuel, and its overall gasoline demand is declining rapidly due to vehicle electrification.¹⁰ The energy security risks of a future Middle Eastern crisis spilling into East Asia are real and rising.

The strategic logic of trans-Pacific Canadian crude

A Canadian west coast oil pipeline would allow East Asian democracies to hedge against future Middle East disruptions. Unlike shipments from the Middle East, Canadian crude would not need to transit geopolitical flashpoints such as the Strait of Hormuz or the Bab al-Mandeb. Nor would west coast Canadian

10. Joseph Webster, Reid I'Anson, and Kevin Li, "What a Middle East Oil and LNG Crisis Means for China and East Asia," Atlantic Council, March 5, 2026, <https://www.atlanticcouncil.org/dispatches/what-a-middle-east-oil-and-lng-crisis-means-for-china-and-east-asia/>.

Figure 4: Share of useful final energy met from domestic production, 2025



Sources: Energy Institute Statistical Review; Teras; Korea Energy Economics Institute; South Korean Ministry of Economic Affairs; Malaysia's Energy Commission; author's calculations.

Note: The United States and Canada are net exporters.

crude need to transit waterways, such as the Panama Canal, that could be shuttered in a contingency with China or face closure due to other reasons, such as insufficient water levels caused by climate change.¹¹ If East Asian democracies can reliably access Canadian crude, they would also strengthen their implicit negotiating leverage vis-à-vis Middle Eastern countries even in peacetime scenarios. While a Canadian western crude faces economic hurdles, and uncertain timelines, it would also provide strategic resiliency and insurance for East Asian democracies, granting it significant strategic logic.

Canadian crude's relative proximity to East Asia, especially Japan, affords key advantages. As Figure 5 shows, an export terminal in southern British Columbia is much closer to Japan and East Asia than other ports, such as those in the Middle East or Houston. A tanker loading from southern British Columbia and sailing across open ocean could reach Yokohama, Japan, in about fourteen days. Alternative export locations along the US Gulf Coast, such as Houston or Corpus Christi, would

require substantially more travel time. A vessel traveling from the US Gulf Coast at the same speed and transiting the Panama Canal would require about thirty-two days of travel time to reach the refinery complex in Yokohama. The Panama Canal also cannot accommodate high-volume VLCC; thus this route requires more vessels or voyages to deliver the same amount of oil as a VLCC. These features could play a major role in a fast-moving crisis or contingency.

Furthermore, the US oil export complex might not be able to sustain exports at its current levels indefinitely. A growing number of analyses find that crude oil production in the Permian Basin will plateau, or even begin to decline, as prime acreage is exhausted.¹² If the largest and most important basin in the United States faces output declines, and is not paired with concomitant decreases in demand, then US crude oil exports to Europe and East Asia will decline. East Asian refineries would still be able to import crude oil from other Western Hemisphere producers with increasing production,

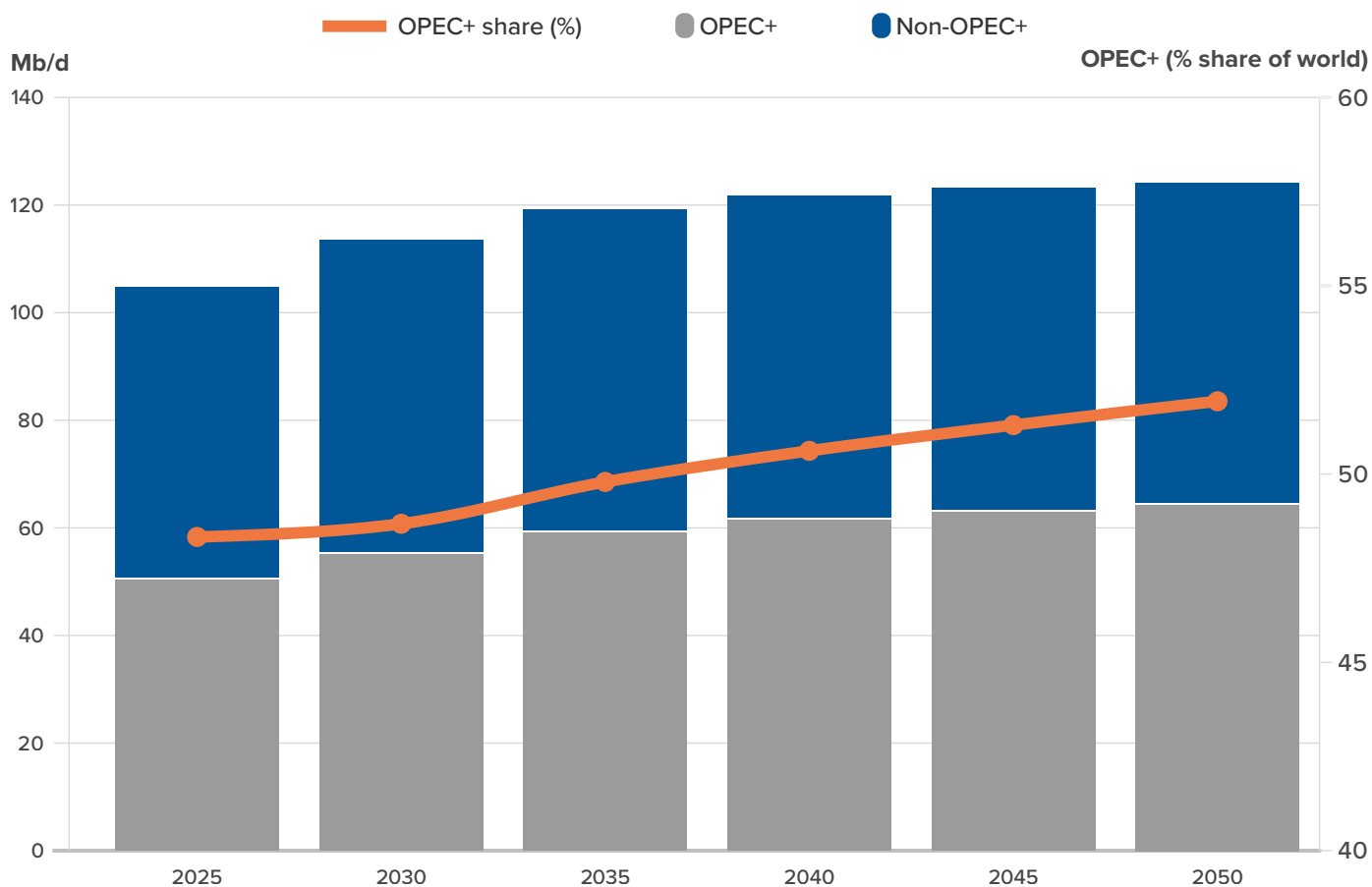
11. "U.S. Trade and the Impact of Low Water Levels in Gatun Lake and the Panama Canal," US Bureau of Transportation Statistics, December 2, 2024, <https://www.bts.gov/data-spotlight/us-trade-and-impact-low-water-levels-gatun-lake-and-panama-canal>.

12. Ron Bousso, "Permian to Retain US Oil Crown Even after Hitting Peak," Reuters, December 11, 2025, <https://www.reuters.com/markets/commodities/energy/permian-retain-us-oil-crown-even-after-hitting-peak-2025-12-11/>.

Figure 5: Crude delivery routes to Yokohama: Distance, transit time, and choke point exposure

Route to Yokohama	Vessel/cargo	Crude basis	Distance (nm)	One-way transit (days)	Choke point	Notes
British Columbia	VLCC, 2.0M bbl	Heavy Canadian (AWB/CDB, 21° API)	4,300	14.2	—	Requires terminal upgrades to handle VLCC-size cargoes
Gulf, inside Hormuz	VLCC, 2.0M bbl	Murban ex-Das Island (40° API)	6,900	23	Hormuz	Omani grades load outside the Strait of Hormuz
Houston, TX (via Cape of Good Hope)	VLCC, 2.0M bbl	US light (WTI, 40° API)	15,700	52.3	—	—
Houston, TX (via Panama)	Aframax, 0.6M bbl	US light (WTI, 40° API)	9,160	31.5	Panama	About 3.3 Aframax voyages needed to match volumes in a single VLCC cargo

Figure 6: Global liquids production



Note: The United Arab Emirates (UAE) is included.

Sources: OPEC World Oil Outlook 2050 (2026 edition) and author's calculation.

such as Brazil or Guyana, that avoid maritime choke points. Nevertheless, barrels from Latin American countries are less geopolitically appealing than volumes from Canada or the United States, which are larger powers and more closely aligned with the East Asian democracies.

In the absence of diversification efforts, East Asia and the rest of the world could become more reliant on Middle Eastern crude oil and production from the Organization for Petroleum Exporting Countries (OPEC). If other members of “OPEC+,” such as Russia and Kazakhstan, are included, then official OPEC estimates predict the OPEC+ cartel’s share of total global liquids production will rise from about 48 percent in 2025 to about 52 percent in 2050. To be sure, the oil cartel’s durability is in question as some members, such as the United Arab Emirates, have left the group.¹³ Still, if the cartel is sustained, OPEC+ would exercise somewhat greater geopolitical influence and world oil demand would remain dependent on the Middle East. Conversely, additional production from Canada would limit OPEC+’s leverage, mitigate reliance on the Middle East, and potentially discourage other producers from joining the cartel, capping prices and boosting consuming economies.

While Pacific Link offers favorable geography and strategic benefits for East Asian democracies, the project’s timeline might cut against it. The pipeline will likely not be completed until 2032 at the earliest, and will need to secure support across political parties, First Nations, and localities (although more than half of all Canadians support the project, according to a Nanos poll from late 2025).¹⁴ Furthermore, it is entirely possible—and perhaps even likely—that another Strait of Hormuz contingency could metastasize, degrading the security of Taiwan and other regional democracies before Pacific Link is completed. Accordingly, if the pipeline is indeed a viable energy security insurance policy, then the East Asian democracies should advance it as quickly as possible by committing to long-term contracts; Canada will also need to move quickly and build the infrastructure rapidly.

Supply-side realities: Transporting non-upgraded bitumen

While less heralded than its US shale patch cousin, Canadian crude oil production has risen sharply, more than doubling since 2010. Several factors contributed to this output surge, including technological improvements in steam-assisted gravity drainage used for extraction from the oil sands; significant capital expenditures undertaken during the high oil price environments of the mid-2000s (with projects materializing after about seven years of development); permissive interest rates, especially after the Great Financial Crisis; US refinery upgrades that allowed for processing of heavier oil grades, including those found in Canadian exports; and improving economics as competing producers of heavy barrels, especially Venezuela and Mexico, experienced sharp production declines. The result is that Canada is now the world’s fourth-largest oil producer.

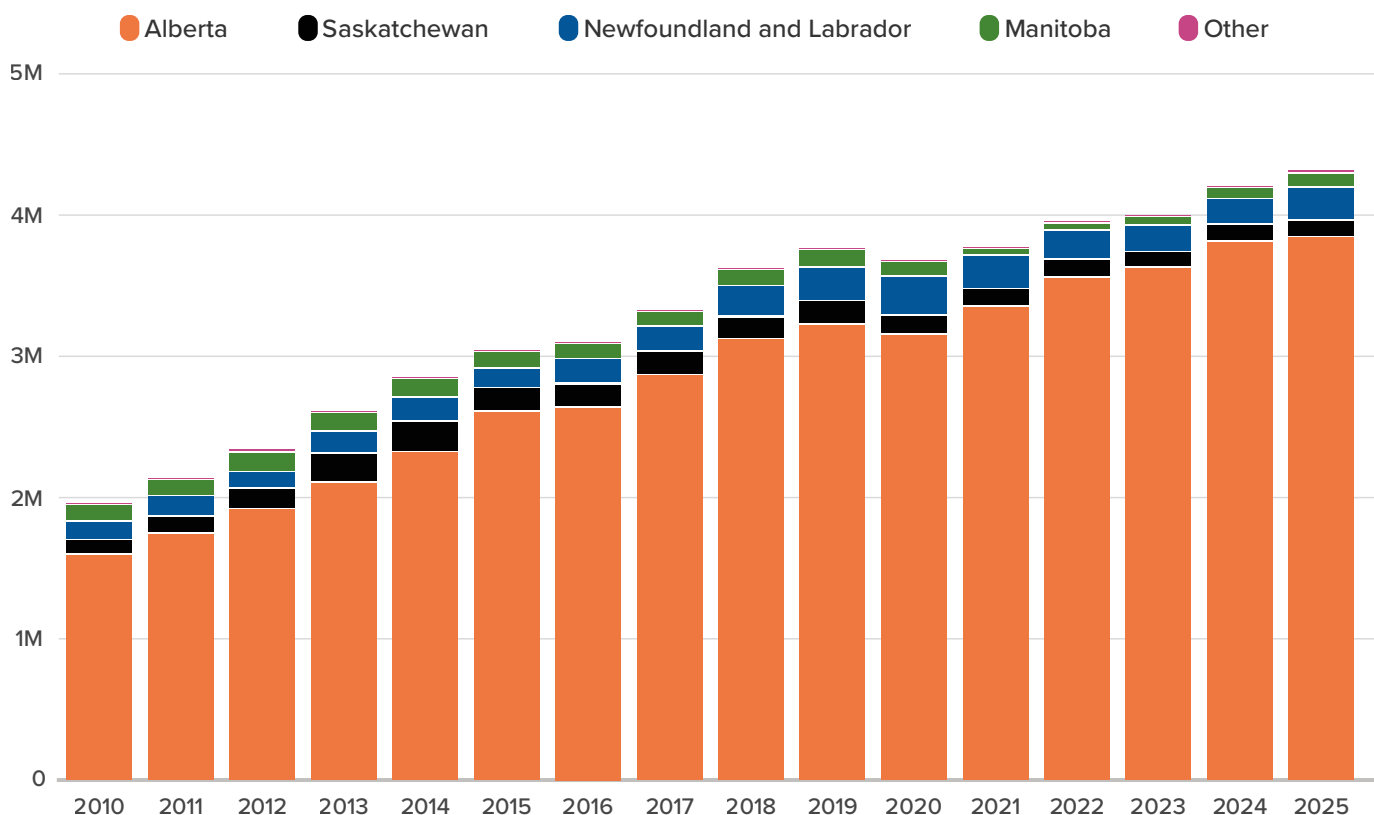
Canadian crude oil production is concentrated in Alberta, which accounts for more than 85 percent of all exports. Albertan crude oil production is classified into different types of grades, including non-upgraded bitumen, upgraded bitumen, conventional light, conventional heavy, and condensate. More details about these grades are listed in Figure 8.

Non-upgraded bitumen accounts for about 60 percent of Canada’s incremental production growth since 2010 and would account for the lion’s share of additional volumes servicing Pacific Link. The chart below shows how Alberta is largely reliant on non-upgraded bitumen. An “upgrader” is used to transform non-upgraded bitumen, or diluted bitumen, into upgraded bitumen usable on pipelines. Due to challenging project economics, such an upgrader has not been constructed in Canada since 2017, when the CNRL Horizon expansion project was completed.¹⁵

There are six options for Canada to export crude oil from Alberta to East Asia, as shown in Figure 10. First, it can export diluted bitumen (also known as dilbit). Under this pathway, Canada would export dilbit by using condensate to reduce viscosity, making the crude oil pipeline ready and allowing for transportation onboard crude oil tankers. This is not a viable pathway for most East Asian refineries, however, as they lack

13. “UAE’s Exit From OPEC+ Reduced the Group’s Share of Crude oil Production and Capacity,” US Energy Information Administration, June 23, 2026, <https://www.eia.gov/todayinenergy/detail.php?id=67804>.
14. Rukhsar Ali, “Alberta Pitches Southern Route for West Coast Pipeline, with a Price Tag of \$35B or More,” CBC News, July 3, 2026, <https://www.cbc.ca/news/canada/calgary/alberta-pipeline-proposal-ottawa-major-projects-9.7254251>; Emma Graney, “More than Half of Canadians Support New Pipeline from Alberta to B.C., Nanos Poll Finds,” *Globe and Mail*, December 7, 2025, <https://www.theglobeandmail.com/canada/article-new-pipeline-alberta-bc-support-nanos-poll/>.
15. “Oil Sands Mining & Upgrading,” Canadian Natural, last visited August 31, 2026, <https://www.cnrl.com/world-class-assets/oil-sands/oilsands-mining-upgrading/>.

Figure 7: Canadian crude oil exports by province (b/d)



Source: Canadian Energy Regulator (Crude Oil Export Summary), and author's calculations. Province of export may not necessarily be province of production; blended Saskatchewan barrels entering Alberta-origin streams are attributed to Alberta.

the coking capacity necessary to process the crude oil into refined products efficiently. In this scenario, Canada could encourage or incentivize Asian democracies to invest in upgraders in their home markets that would transform non-upgraded bitumen into synthetic crude oil (SCO) that is lighter and sweeter, and therefore more compatible with less complex refineries. Alternatively, East Asian refineries could undertake coker retrofits, which would enable them to import as-is dilbit from Canadian suppliers. Another option would be for Canada to partially upgrade oil before export, reducing viscosity and dependency on condensate. Canada could also invest in its own domestic upgraders to process the dilbit into SCO, then export the SCO after processing. Finally, Canada could refine the crude oil domestically and then export refined products,

although this pathway is a total non-starter due to formidable economic and permitting obstacles.

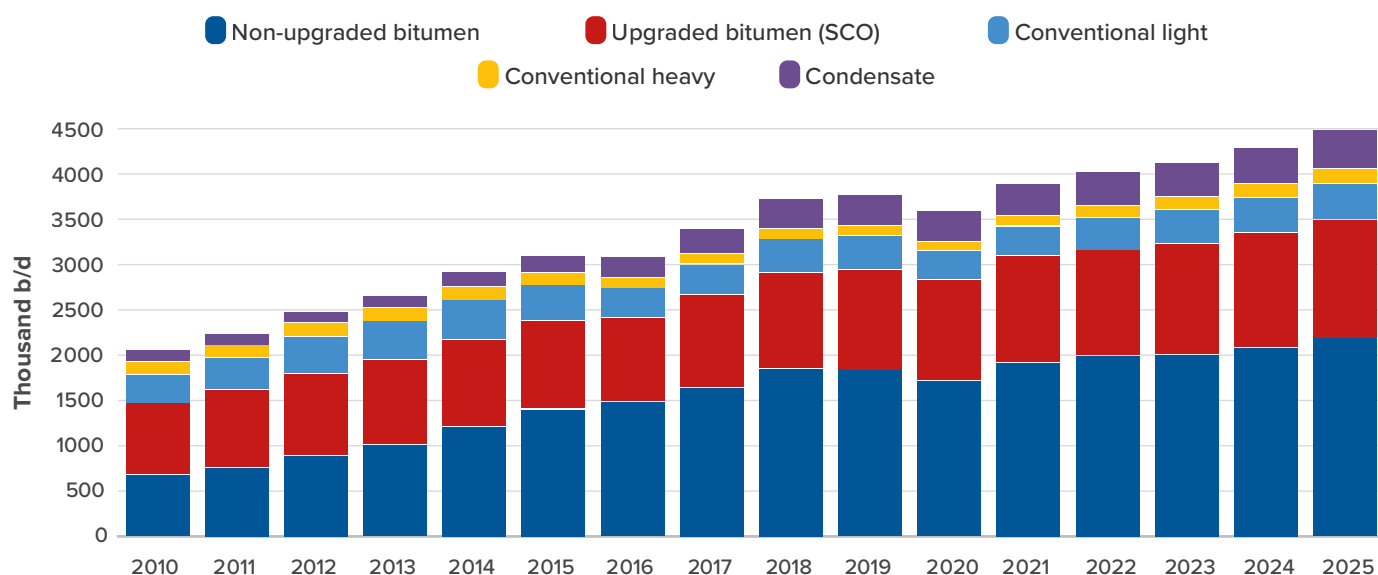
For now, Canada is largely exporting dilbit on seaborne volumes to the China via the Trans Mountain Expansion (TMX) pipeline and to the United States via overland routes. The Westridge port, the terminus of the TMX pipeline, is the only port along Canada's west coast currently exporting to Asia; the majority of these volumes are headed to China, as its complex refineries are configured to intake heavy crude. If incremental and even existing Canadian exports are to flow to East Asian democracies, then either Canada must upgrade its export complex or the East Asian democracies must reconfigure their own refineries.

Figure 8: Canadian crude oil grades: Composition, production, and refining requirements

Crude type	API gravity	Crude grade	Description	Production method	Refining and markets	Percentage of production (2025)
Non-upgraded bitumen	8–10° raw; 20–21° blended	WCS (Western Canadian Select)	Extra-heavy bitumen cut with diluent: dilbit (25–30 percent condensate) or synbit (blended with SCO). 75 percent of production growth since 2010.	SAGD, CSS, or surface mining, no on-site upgrading	Needs coking-capable refineries. Historically US Midwest/Gulf Coast; TMX now delivers to Asian markets, largely mainland China.	41 percent
Upgraded bitumen	30–34°	SCO (Synthetic Crude Oil)	Light, sweet, no residuals	Upgraded via coking or hydrocracking. No new upgrader since CNRL Horizon (2017); weak economics lead incremental supply to ship as dilbit instead.	Pipeline-ready, no diluent. Competes with light sweet crude.	24 percent
Conventional heavy	10–25°	Conventional heavy	Heavy oil, non-oil-sands origin	Conventional wells, recovered via CHOPS	Pipeline-ready, no diluent	9 percent
Conventional light	30°+	Conventional light	Mostly sweet	Legacy Western Canadian Sedimentary Basin plays	Pipeline-ready, no diluent	13 percent
Condensate	50°+	C5+	Very light liquids	Liquids-rich gas wells. Demand tied to bitumen growth as main dilbit diluent.	Pipeline-ready, may need fractionator processing.	11 percent

Sources: Canada Energy Regulator and author's calculations.

Figure 9: Albertan crude oil production by type

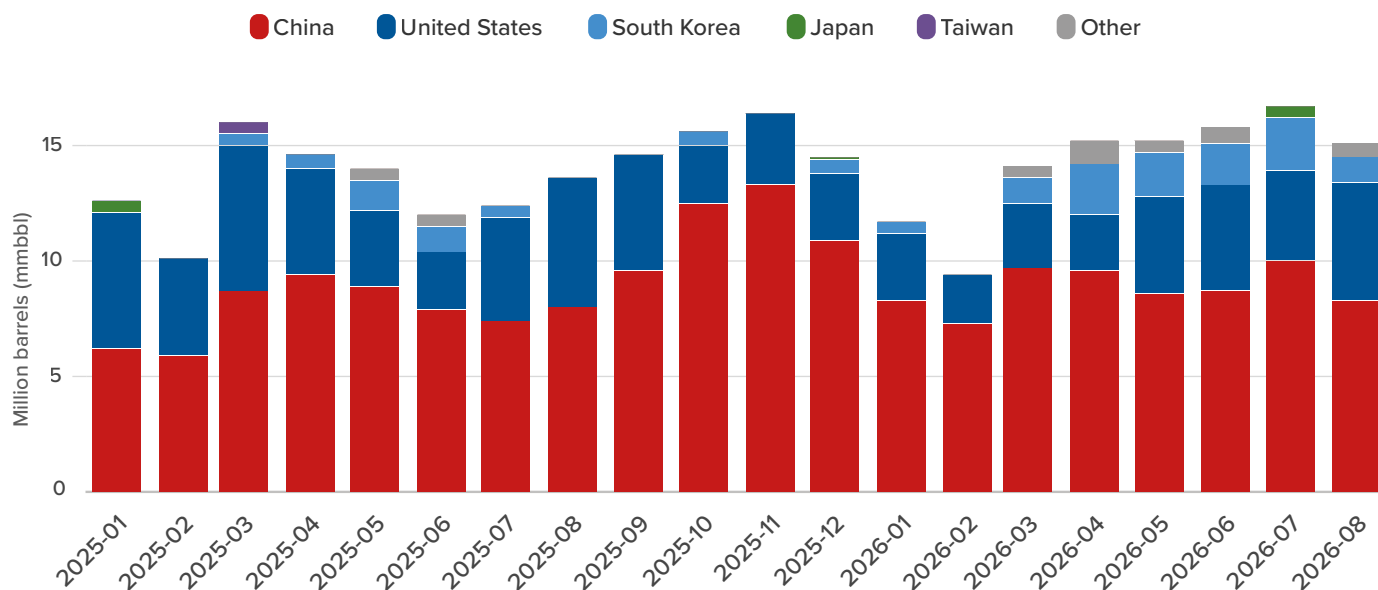


Source: Canada Energy Regulator and author's calculations

Figure 10: Canada's crude oil export pathways to East Asia: Costs and benefits

Criterion/ Export pathway	Coker retrofits (coalitional Asia)	Canadian domestic upgrading to SCO	Upgraders in Asian partner markets	Partial upgrading, then export	Export dilbit (status quo)	Domestic refining; export products
What Canada exports	Dilbit (unchanged)	SCO, light sweet, 30–34° API	Dilbit (unchanged)	Partially upgraded heavy sour crude	Dilbit, 25–30 percent condensate	Refined products
Who buys it in East Asia	Retrofitted refiners, direct dilbit buyers	Nearly all of Japan, Korea, Taiwan, India	Unchanged for Canada; partner's SCO output	Unchanged; still needs coking capacity	Mainland China coking refiners mainly	Product importers, not refiners
Commercial viability	High; relatively low capex, 4-year build	Very low; no upgrader built since 2017	Low; partner bears capex, unlikely to build	Low-moderate; little private uptake	High; default market pathway	Lowest; costly, poor tanker economics
Strategic logic	Highest ROI; fastest way to reduce China/Hormuz exposure	Strongest if built; slow, costly (>7 yrs)	Same benefit as retrofits, higher cost	Minor gain; buyers largely unchanged	Limited beyond mainland China market	Weak; cross-Pacific product trade
Ranking for coalitional energy security	#1. Highest return on investment. Can be completed in the medium term (4-5 years), increases strategically important diesel yield, decreases reliance on Hormuz-transiting barrels, and could intake existing and incremental Canadian flows that would otherwise be directed to mainland China	#2. If built, the strongest outcome for democratic energy security on every axis. Would expand the buyer pool across East Asia and reduce both mainland China exposure and Hormuz/choke point exposure, but likely prohibitively expensive with timelines >7 years	#3. Strictly dominated by Pathway 6 (coker retrofits), which achieves the same effect at far lower cost and technical risk	#4. Makes Canadian barrels more accessible for coalitional refineries, but volumes would continue to largely flow to complex refineries in mainland China	#5. Real, proven volumes. Existing exports flow mainly to mainland China, however, and have less appeal for coalitional refineries	#6. Weakest on both feasibility and strategic payoff

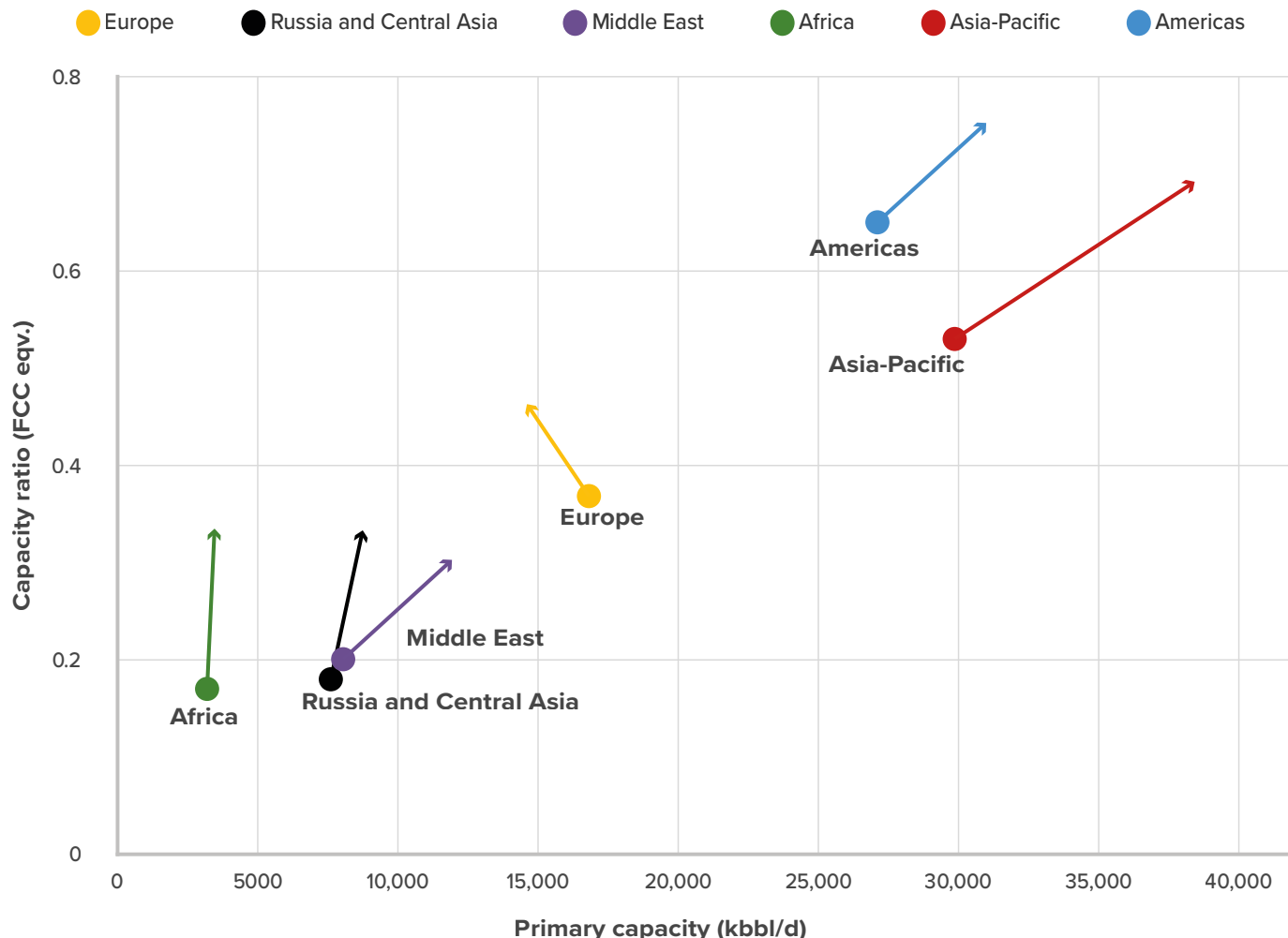
Figure 11: World monthly crude and condensate imports from Westridge, by destination economy



Source: Kpler and author's calculations.

Figure 12: Refinery capacity and complexity by region (2010 vs. 2024)

Up-right = larger and more complex | “World” excluded (off-scale)



Source: Eni World Energy Review (2025 edition).

Demand-side fit: Refinery slates, quality, and pricing

Given that it is far cheaper for East Asian refineries to change configurations than for Canada to build an upgrader, the region's refineries will need to be able to accept Canada's crude via coker refits.¹⁶ This will prove challenging but not insurmountable.

Taiwan and Japan's refinery complex and coker expansions

Taiwan and Japan might be particularly suited for coker expansions, especially if energy security considerations are taken into account. Both economies should consider coker expansions, albeit for different reasons.

Taiwan operates three refineries distributed across Northern, Central, and Southern Taiwan. Of Taiwan's three refineries, the Formosa Plastics Group (FPG) operates a 540,000 b/d refinery in Mailiao in central Taiwan that offers the strongest case for importing greater volumes from existing and planned

16. "Market Snapshot: A Tour of Canada's Oil Sands Upgraders," Canada Energy Regulator, February 23, 2022, <https://www.cer-rec.gc.ca/en/data-analysis/energy-markets/market-snapshots/2022/market-snapshot-a-tour-of-canadas-oil-sands-upgraders.html>.

Figure 13: Taiwan's refining system: Capacity, configuration, and dilbit readiness

Refinery	Location	Ownership	Capacity (kb/d)	Start year	Dilbit readiness	Notes
Mailiao	Mailiao Township, Yunlin County (artificial island, west coast)	Formosa Petrochemical Corp. (FPCC), private	540	2000	Highest in Taiwan. Designed for 50/50 Arabian Heavy/Light slate with coking and deep desulfurization already in place. Would need blending trials, not new units	Near-term, proof-of-concept candidate for Canadian heavy imports. Formosa is commercial/export-oriented; won't take on national-security-relevant operations unless incentivized
Dalin	Siaogang District, Kaohsiung City (southwest coast)	CPC Corporation, Taiwan, state-owned	400	1996	Low today; retrofit candidate. Coker addition plus hydrotreating/hydrogen expansion would create dilbit capability and shift output toward diesel	CPC has a weak balance sheet and suffers from politically suppressed fuel prices
Taoyuan	Guishan District, Taoyuan City (northwest, near Taipei)	CPC Corporation, Taiwan, state-owned	200	1976	Low. Strategically located in northern Taiwan, but smaller, weak marine access, limited space may constrain coker expansion	Provides resiliency due to its location in a strategically sensitive, energy-constrained region. Useful for producing diesel for power generation and transportation fuel in northern Taiwan.

Canadian projects.¹⁷ Mailiao's refinery is the largest in Taiwan and has the theoretical functionality to process existing Canadian crude exports with minimal refits given its technical capabilities, such as a residual fluid catalytic cracker (RFCC), residual desulphuriser (RDS), and delayed coker unit (DCU).¹⁸ Moreover, the Mailiao refinery is relatively weighted toward diesel, which is highly resilient due to its usefulness across transportation and electricity generation.¹⁹ Nonetheless, there are hurdles: the refinery has little actual experience handling Canadian crude oil, while FPG is a private company and would need to be financially incentivized to undertake national security-relevant activities. Turning south, to Kaohsiung and the state-owned CPC, Taiwan's Dalin refinery would make for a good candidate for a coker addition, enabling it to intake dilbit.

Figure 14 demonstrates Taiwan's real need to diversify oil supply sources. For now, Taiwan remains highly reliant on volumes from the Gulf. Some of its imports from the Gulf bypass the Strait of Hormuz, but Middle Eastern shipments are vulnerable to disruption.

Turning to Japan, there are already extensive discussions between the Canadian and Japanese governments over expanding Albertan crude exports to the world's fourth-largest economy. Alberta has offered to help fund the construction of a coker unit needed to process heavy oil sands; the two sides are also examining other measures to improve the suitability of Japanese refineries for Canadian crude, according to Reuters.²⁰

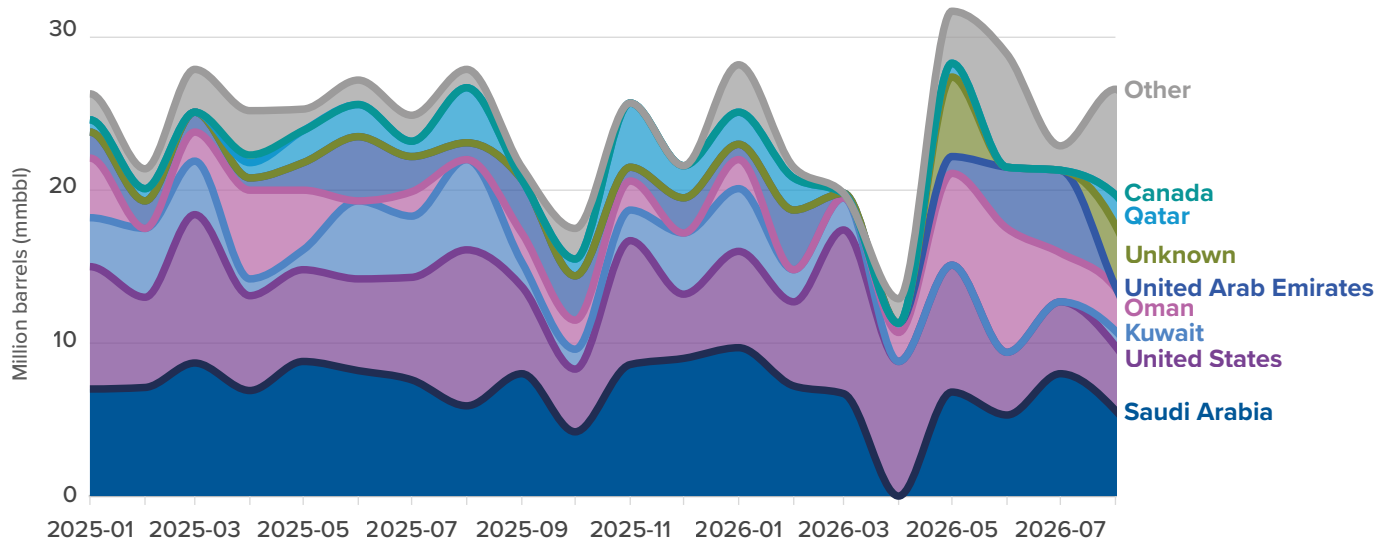
17. "Petroleum and Energy," Formosa Plastics Group, last visited August 31, 2026, <https://www.fpg.taipei/en/group/1>.

18. Lu Yawen, "Taiwan's Formosa to Slash Runs Further in April," Argus, March 16, 2026, <https://www.argusmedia.com/en/news-and-insights/latest-market-news/2801472-taiwan-s-formosa-to-slash-runs-further-in-april>; "Taiwan's Formosa Operates Refinery at Reduced Rate Due to Maintenance," Reuters, December 2, 2024, <https://www.reuters.com/business/energy/taiwans-formosa-operates-refinery-reduced-rate-due-maintenance-2024-12-02/>.

19. Yawen, "Taiwan's Formosa to Slash Runs Further in April."

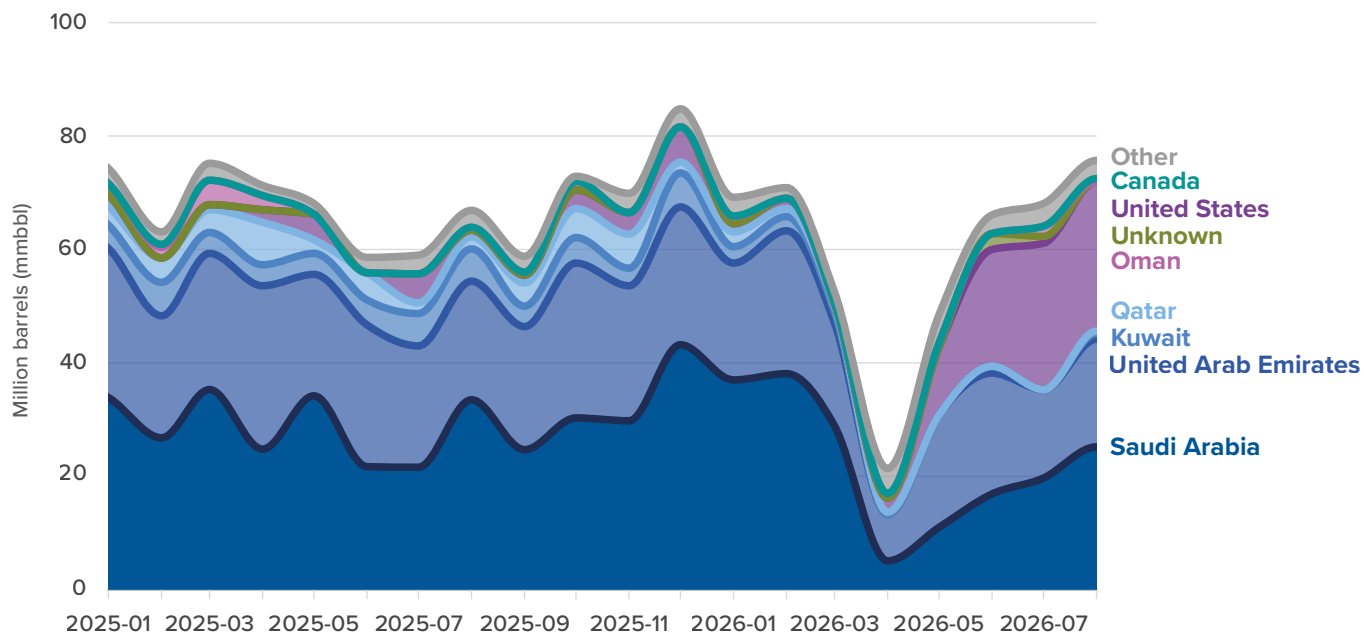
20. Amanda Stephenson, "Alberta in Talks with Japan on Boosting Canadian Crude Imports," Reuters, June 22, 2026, <https://www.reuters.com/business/energy/alberta-talks-with-japan-boosting-canadian-crude-imports-2026-06-22/>.

Figure 14: Crude oil and condensate imports into Taiwan by origin (monthly)



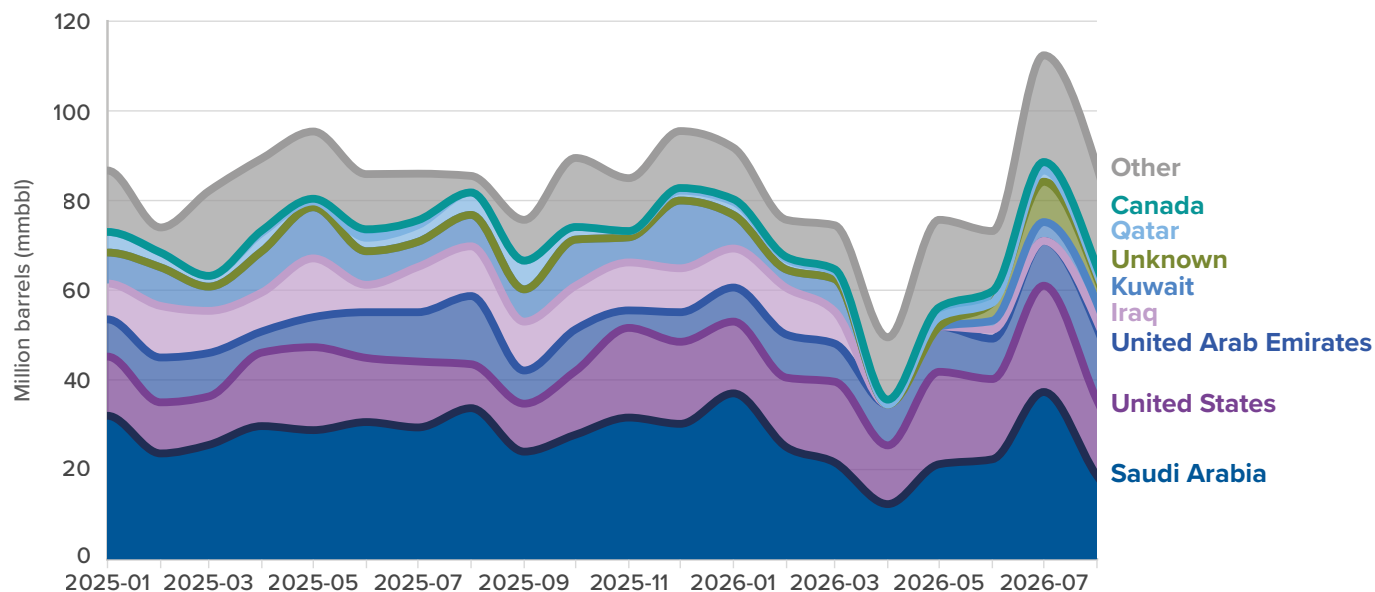
Source: Kpler and author's calculations. Canada's crude oil and condensate exports averaged approximately 888,000 b/d in the first eight months of 2026 compared to a full-year 2025 average of approximately 821,000 b/d.

Figure 15: Crude oil and condensate imports into Japan by origin (monthly)



Kpler and author's calculations. Canada's crude oil and condensate exports averaged approximately 888,000 b/d in the first eight months of 2026 compared to a full-year 2025 average of approximately 821,000 b/d.

Figure 16: Crude oil and condensate imports into South Korea by origin (monthly)



Source: Kpler and author's calculations. Canada's crude oil and condensate exports averaged approximately 888,000 b/d in the first eight months of 2026 compared to a full-year 2025 average of approximately 821,000 b/d.

Japan has an urgent need to diversify its oil imports, as seen below. Prior to the US–Iran war, virtually all of Japan's imports originated from the Middle East.

As with Taiwan, there is a strong, Hormuz-driven energy security logic for Japan to diversify its imports sources and, where appropriate, reconfigure its refineries to run on different types of oil, including Canada's heavy sands. Whereas Taiwan has only three refineries on a single island, Japan has nearly twenty refineries across various islands (although most refineries are sited on Honshu, Japan's largest and most populated island). Japanese and Canadian stakeholders will therefore need to review where a coker could prove optimal, after accounting for various elements such as energy security, Japan's geographic disposition, project economics, and available storage.

The South Korean refinery complex

South Korea presents an interesting case for offtake of Canadian oil exports, and one distinct from that of its neighbors. The fundamentals are strong: South Korea is the region's most oil-intensive economy and its refineries, which do not require major modifications to accept Canadian crude, are already gradually increasing their processing of Canadian volumes; Canada and South Korea share a free trade agreement; and, while the two sides are not formal allies, they are both rule-of-law democracies.²¹ Signs of cooperation are already growing. On June 19, Lee Jong-Wook, head of the Korea Customs Service, met with Brian Jean, Canada's minister of energy and mineral affairs, and the two watched on at the SK Innovation Ulsan Complex as Canadian crude oil was introduced into Korea.²²

21. Gawoon Philip Vahn, Charles Lee, and Leon Wong, "South Korea Secures 88% of May Crude Needs from Balanced Mix of Supply Sources," S&P Global, June 29, 2026, <https://www.spglobal.com/energy/en/news-research/latest-news/crude-oil/062926-south-korea-secures-88-of-may-crude-needs-from-balanced-mix-of-supply-sources>.

22. Shin Yoogeoung, "The Korea Customs Service Has Begun Full-Fledged Cooperation with Alberta, Canada, on the Import and Refinement of Canadian Crude Oil," *Maeil Business*, June 19, 2026, <https://www.mk.co.kr/en/economy/12078595>.

Crucially, South Korea's refineries, including both GS Caltex and SK Innovation, have purchased Canadian heavy crude oil in recent years.²³ With the Strait of Hormuz outage impacting global oil markets, South Korea has increased imports from other sources and, in July, wisely engaged in inventory builds, including from Canada. Canadian crude holds several advantages beyond South Korea's desire to diversify crude oil import sources. South Korean oil demand is disproportionately diesel weighted (especially for export), while Canadian crude is highly suitable for diesel. South Korean refineries should consider building on these initial cargoes from Canada.²⁴

■ Canadian challenges

Using Canadian crude oil exports to strengthen East Asian oil security will not only require demand-side signals from the East Asian democracies: supplies from Canada must also be secured. While Canada already exports substantial volumes from its west coast, increasing shipments via Pacific Link will require social license from the Canadian population, inter-provincial agreements, and bipartisan consensus. Canada is already working on securing these foundations but a durable consensus is required.

Pacific Link requires domestic social license. As is true of citizens in most other democracies, Canadians regard climate change as a major risk. In a 2025 survey, more than half of all respondents in the Canadian Social Survey reported feeling "very" or "extremely" concerned about climate change. Any project that would increase carbon emissions—including the west coast pipeline—might therefore be viewed with some skepticism by many Canadians, especially if wildfires become a persistent health threat during summers.²⁵ To address climate change concerns, Canada should limit Pacific Link's emissions and environmental impacts, including via CCS. Canada is already planning to pair the pipeline with an emission reduction of 6 million tons per annum (MTPA) through the Pathways CCS project, which is set to be completed by 2035.²⁶ Still, if sufficient techno-economic progress on CCS is not achieved, Pacific Link and other oil and gas infrastructure could face greater scrutiny and even backlash.

Securing license will also require inter-provincial comity and bipartisan consensus. Alberta, home to the majority of Canada's oil production, is highly supportive of export projects; other provinces, such as British Columbia, traditionally take a more skeptical approach. Other actors, such as First Nations, play a major role in Canada's political economy, including for transit rights. In addition, Western Canada's three main national political parties all play major roles in Alberta and British Columbia, the two provinces that the pipeline would transit. The Conservatives traditionally dominate Albertan politics, but the New Democratic Party (NDP) won the provincial premiership in 2015. The NDP governs British Columbia but nearly lost the 2024 general election. Finally, Alberta's flirtation with secession complicates inter-provincial dynamics. If Alberta takes any steps toward secession, delays to Pacific Link are all but inevitable. Securing durable support from a variety of actors, and avoiding any drifts to secession, will be necessary for the west coast pipeline to swiftly achieve operating status.

■ Recommendations

East Asia's heavy reliance on energy imports has made its economic vulnerability to choke points all too clear amid the Iran war. With Middle East-centered geopolitical risks likely to persist, there is a strong strategic logic for East Asian democracies to consider alternative crude oil sources, especially from friendly powers in North America. While Japan, South Korea, and Taiwan face unique conditions and constraints, all three have an interest in reassessing their current oil security strategies and determining where increasing Canadian crude imports can serve their interests.

Taiwan and Japan, in particular, should revise assumptions about oil security—and energy security more broadly. While there was once a strong logic to optimizing along variables like economic efficiency, this logic no longer holds true. Due to the real, and rising, risk of an energy quarantine or blockade, these democracies must increase their resiliency even if it entails reduced economic efficiency. Moreover, because Taiwan enjoys Northeast Asia's highest per-capita income and lowest debt-to-gross domestic product (GDP) ratio, it can afford redundancy in its energy investments.

23. Florence Tan, "Japan, S. Korea Refiners Join China in Buying Canadian TMX Oil," Reuters, July 15, 2024, <https://www.reuters.com/markets/commodities/japan-s-korea-refiners-join-china-buying-canadian-tmx-oil-2024-07-15/>.

24. Webster and l'Anson, "The Strait of Hormuz Closure Forces a Choice."

25. "Study: Feeling the Heat: More than Half of Canadians are Highly Concerned about Climate Change," Government of Canada, July 8, 2026, <https://www150.statcan.gc.ca/n1/daily-quotidien/260708/dq260708b-eng.htm>; "A Summer Season of Fire, Smoke, Ashes and Fear," *Globe and Mail*, August 1, 2026, <https://www.theglobeandmail.com/opinion/editorials/article-wildfire-season-canada-smoke-summer>.

26. "Advancing Emissions Reductions and Expanded Export Capacity: The Trilateral Memorandum of Understanding between Canada, Alberta and the Oil Sands Alliance," Government of Canada, last updated July 13, 2026, <https://www.canada.ca/en/one-canadian-economy/news/2026/07/advancing-emissions-reductions-and-expanded-export-capacity-the-trilateral-memorandum-of-understanding-between-canada-alberta-and-the-oil-sands-all.html>.

Recommendations for all three East Asian democracies (Japan, South Korea, and Taiwan)

- Indo-Pacific democracies—especially Taiwan and Japan—should closely examine investing in coker retrofits at existing refineries and intaking heavy sands crude at existing compatible facilities. Once approved, coker refits can be completed in as little as four years, or perhaps sooner. Once installed, they would expand the universe of available crude that refineries could process, alleviating dependency on the Strait of Hormuz and, crucially, enabling coalitional refineries to maximize diesel throughput.

Recommendations for Japan

- Japan should study the suitability of oil supply diversification and reconfiguration of refineries to intake Canadian crude oil. These studies should consider the risks of future Hormuz crises, the desirability of ensuring non-OPEC supply sources, and geopolitical alignment. Diversification of supply might be most crucial on Honshu, given the spatial concentration of Japan's refinery complex on its main island.

Recommendations for South Korea

- South Korea's oil complex has unique needs: it is a major consumer of naphtha for petrochemicals but also exports major amounts of diesel. Canadian crude techno-economics are more suitable as an input for diesel. Accordingly, if South Korea seeks to maintain diesel exports and reduce dependency on less-secure Middle Eastern oil supplies, it should study the suitability of Canadian crude oil for its own purposes. Of course, any studies should consider the risks of future Hormuz crises, the desirability of ensuring non-OPEC supply sources, and geopolitical alignment with a fellow democracy.

Recommendations for Taiwan

While investments in defense—such as drones and other asymmetric military capabilities—remain paramount, Taiwan should also prioritize and effectively resource its energy resiliency.

- Taiwan should upgrade refineries' capabilities to maximize diesel throughput; it should also significantly expand, harden, and disperse storage of long-duration diesel before a crisis. Diesel is uniquely suitable for resiliency because it can be used as both a transportation fuel and an electricity generation source. In a contingency—and assuming that its refineries were not disabled by cyber or, more likely, insider sabotage—

Taiwan could produce diesel to run military vehicles, fuel commercial and civilian logistics, and provide backup power to critical infrastructure such as hospitals and cooling stations. Crucially, diesel would be highly suitable for meeting Northern Taiwan's electricity needs in a contingency.

- If it judges that cokers are strategically valuable, Taiwan will need to incentivize its refiners to adopt the technology. This will necessarily entail providing fiscal or legal incentives for FPG, a private company.
- Taiwan should adopt something akin to locational marginal pricing for transport fuels, especially gasoline and diesel. Under current law, Taiwanese consumers pay a heavily subsidized and uniform price at the pump, which raises a question of fairness. This practice means consumers in rural Taitung pay the same prices as wealthy Hsinchu urbanites. More importantly, liberalizing prices—gradually and incrementally, while ideally maintaining rural cross-subsidies—would rationalize demand and improve profitability at both CPC, Taiwan's state-run oil company, and FPG, which typically follows CPC's pricing regimen. To be sure, CPC would still require significant subsidies, especially if Taiwan chose a security-first approach to oil imports and increasingly relied on North American volumes.
- To safeguard updated refineries against sabotage in a contingency or natural disaster, Taiwan should work with external partners on energy resiliency personnel rotations where appropriate, including at refineries. Potential energy resiliency personnel rotation partners could include US and Japanese personnel, along with personnel from other friendly powers such as Canada, the United Kingdom, and Australia. Rotating US personnel through Taiwan could be part of a US–Taiwan Energy Resilience Task Force examining humanitarian assistance and disaster relief, as well as cyber and sabotage risks. Any personnel rotation cooperation between the United States, Japan, other friendly powers, and Taiwan need not be public.

Recommendations for Canada

- Canada should enforce best practices to limit the frequency and severity of wildfires, helping ensure durable political support for Pacific Link. While the Canadian oil and gas complex is not exclusively or even predominantly responsible for periodic summer fires, these episodes trigger significant environmental damage and erode public support for the industry.
- Canada should engage in more CCS and carbon capture, utilization, and storage (CCUS) trials across North America. If CCS and CCUS prove to be

commercially and technically viable at scale, this will substantially alter the emissions footprint of the North American oil and gas complex, unlock a lucrative new industry, and enhance the social license to operate for North American oil and gas projects, including Pacific Link. If CCS or CCUS are unable to lower emissions in a commercially scalable way, however, the oil pipeline could face greater resistance from future governments and the broader Canadian public.

- It is important to avoid Alberta's separation. Separating from the rest of Canada would put the west coast oil pipeline on hold, possibly indefinitely. Albertan independence would likely produce one of the most serious crises in US–Canada relations since the War of 1812. In a worst-case scenario, an Albertan divorce from

Canada would lead to secession interest across North America, scrambling borders and leading to instability. If Alberta secedes, a more plausible scenario is that its ties will fray across the board, including with the United States, which—despite recent challenges in bilateral relations—has no interest in seeing its historically closest and best ally destabilized. If Alberta secedes, the west coast oil pipeline project will not move forward.

Even if the world avoids the worst-case outcomes from the US–Iran war, the conflict serves as a wake-up call. With Iran seemingly able to close the Strait of Hormuz at will, prior assumptions about the reliability and security of Middle Eastern crude oil must be revised. In this new age of global oil insecurity, Western Hemisphere projects deserve a second look from East Asian democracies.

About the authors

Joseph Webster is a nonresident fellow at the Atlantic Council's Global Energy Center and Indo-Pacific Security Initiative, as well as editor of the independent China–Russia Report. Webster's research focuses on the national security–energy nexus, especially the US–China strategic competition.

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