CANADIAN NATURAL GAS EXPORTS TO 2030

FEBRUARY 2022

INTRODUCTION

Cooler than normal winter in 2020-21 led to a rebound in natural gas demand which, in turn, led to increased Canadian exports as well as Canadian demand.

Producer spending, neutered due to COVID, returned in 2021 leading to increased production from Western Canada. Incorrys believes the importance of access to both domestic and export markets is paramount for Western Canadian producers looking to maintain or grow production.

This analysis will review and forecast Canadian Exports to 2030, by export point.

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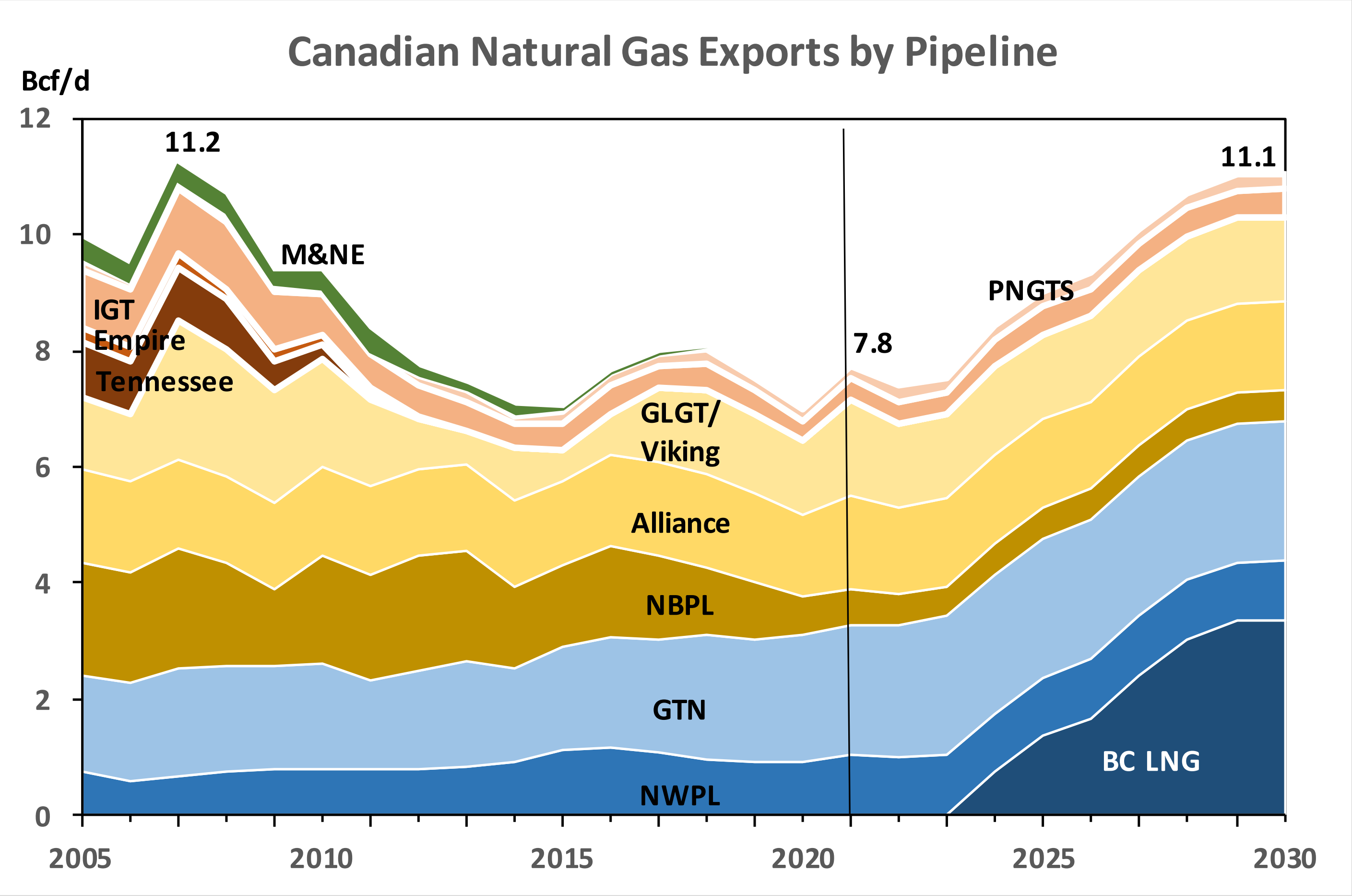
SUMMARY

- West Coast LNG will drive Canadian export growth over the next decade.
- Expansion on Gas Transmission Northwest (GTN) will increase Pacific exports.
- Mid-west exports will face continued competition from Bakken associated gas production.
- Portland Natural Gas Transmission System (PNGTS) and Iroquois (IGT) expanded capacity into pipeline starved New England will increase flows from the Eastern Triangle over the forecast period.
- Ontario Nuclear refurbishments will increase natural gas requirements within the Eastern Triangle.
- Increased Eastern Triangle demand and exports will lead to increased flows both within the Eastern Triangle and via the long haul TransCanada (TC) Mainline.
  - This will put downward pressure on Eastern Triangle and TC Mainline tolls post-2026 settlement.
  - Lower tolls could provide upside for gas transiting from Western Canada through the Eastern Triangle.

CANADIAN NATURAL GAS EXPORT OVERVIEW



Regional Export Market Share

	Western	Midwest	Northeast
2005	24%	48%	24%
2021	42%	50%	8%
2030	61%	32%	7%

Increased competition with US Marcellus supply has pushed out Canadian gas exports into Northeast markets. The New England pipeline development gridlock has allowed Canadian exports to remain via pipelines servicing peak-day markets (Iroquois and PNGTS).

Competition from Bakken associated gas in the Midwest market has reduced Canadian gas competitiveness on the Northern Border pipeline.

West Coast markets are expected to increase market share with the 2023 expansion of GTN capacity and development of LNG Canada/Coastal GasLink Projects begin in 2024.

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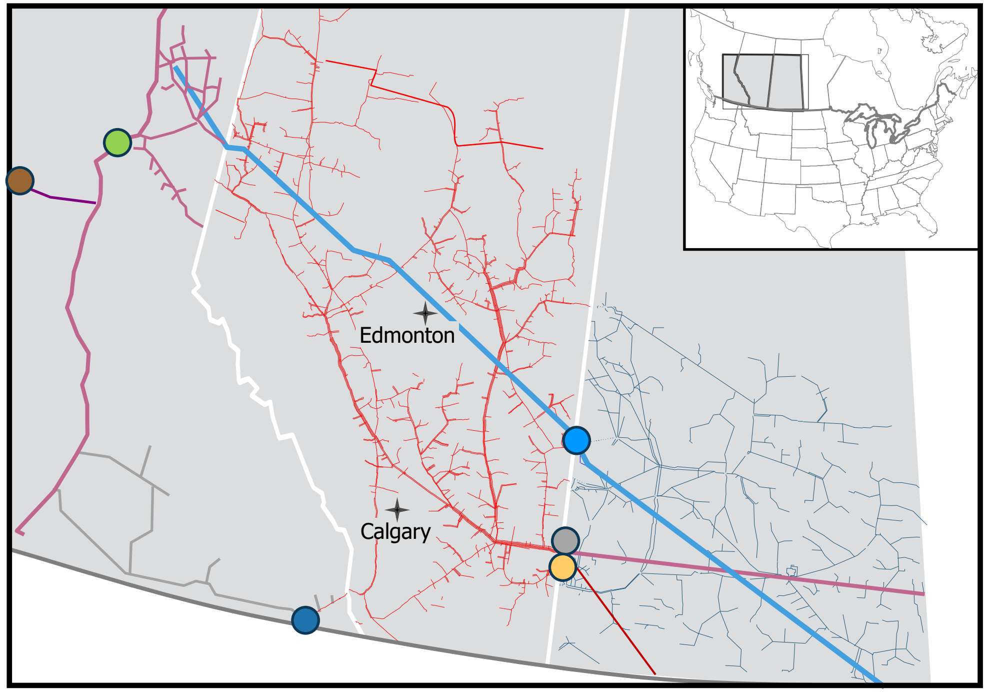
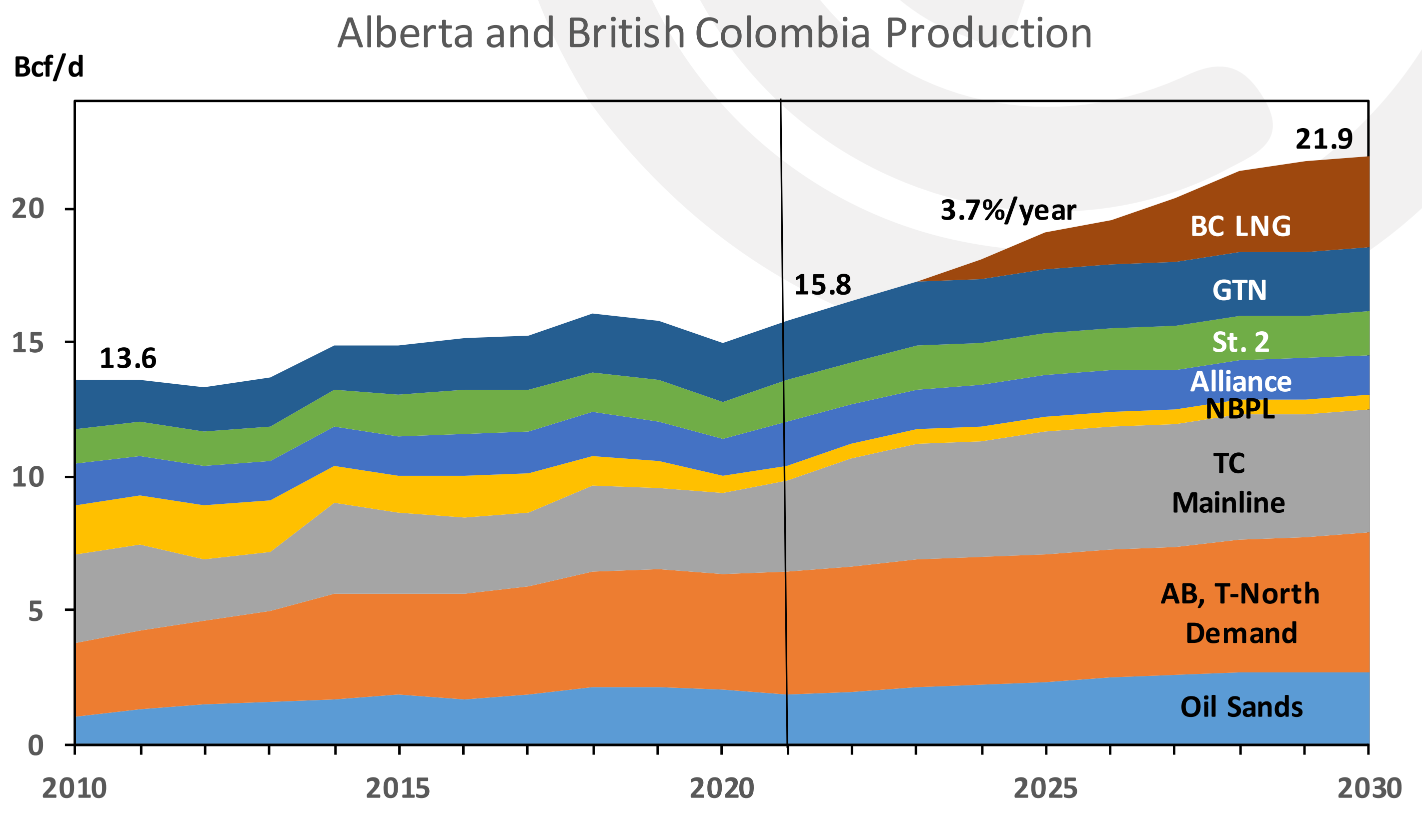
ALBERTA AND NORTHEAST BC NATURAL GAS PRODUCTION ALLOCATION





* Saskatchewan Production of around 0.5 Bcf/d is not included. TransCanada (TC) Mainline is at Empress.

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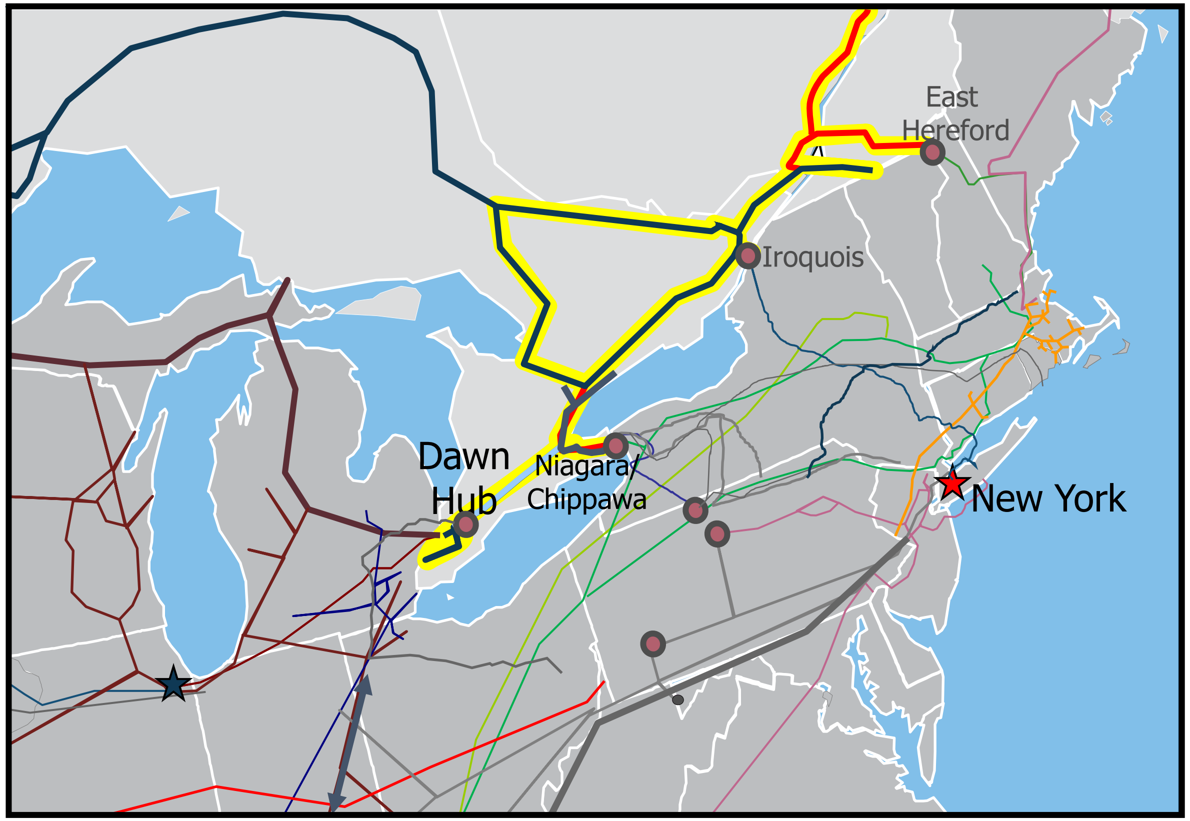
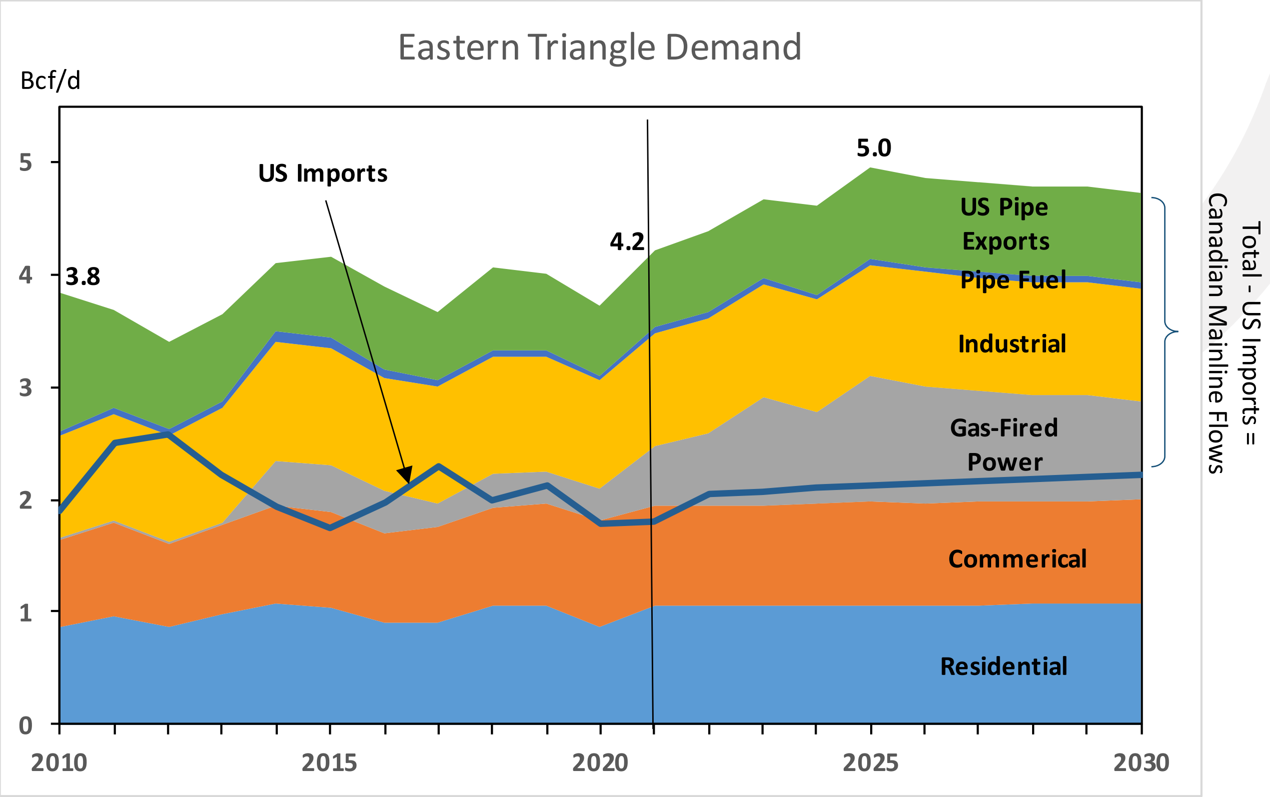
EASTERN TRIANGLE DEMAND TO 2030





Increased Eastern Triangle Demand

- As gas-fired demand increases, Incorrys believes US imports will remain steady and the eastern triangle market will be satisfied by increased western Canada gas supplies.
- Increased gas utilization in the Eastern Triangle coupled with further depreciation of TC Mainline's prairies facilities will put downward pressure on tolls post 2026 settlement.

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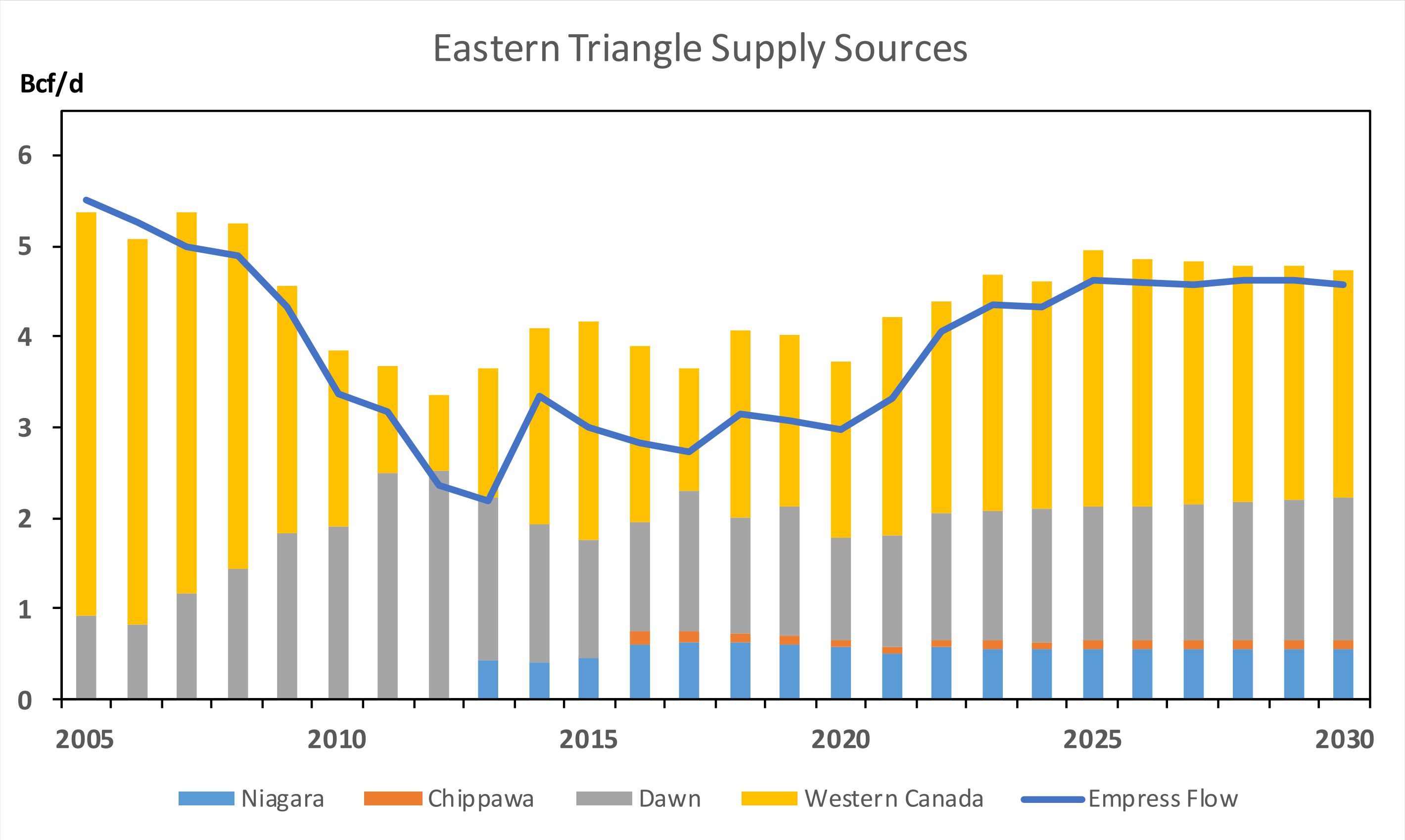
EASTERN TRIANGLE SUPPLY SOURCES



This chart provides an overview of supply sources that meet Eastern Triangle demand. Composition of gas sources has changed over time:

- In 2005, Western Canada provided 83% of the market requirements with imports at Dawn supplying the remainder.
- By 2013, Western Canada share had decreased by over half to 39% with Dawn and Niagara/Chippawa increasing in market share to 61%.
- In 2030, Incorrys expects market share of supply sources to stabilize at about 50:50 with commitments to long-term pipeline capacity and increased power demand resulting from shuttered Ontario Nuclear capacity.
- Underpinned by Dawn and North Bay LTFP commitments, Empress flows are expected to reach 4.6 Bcf/d by 2025.

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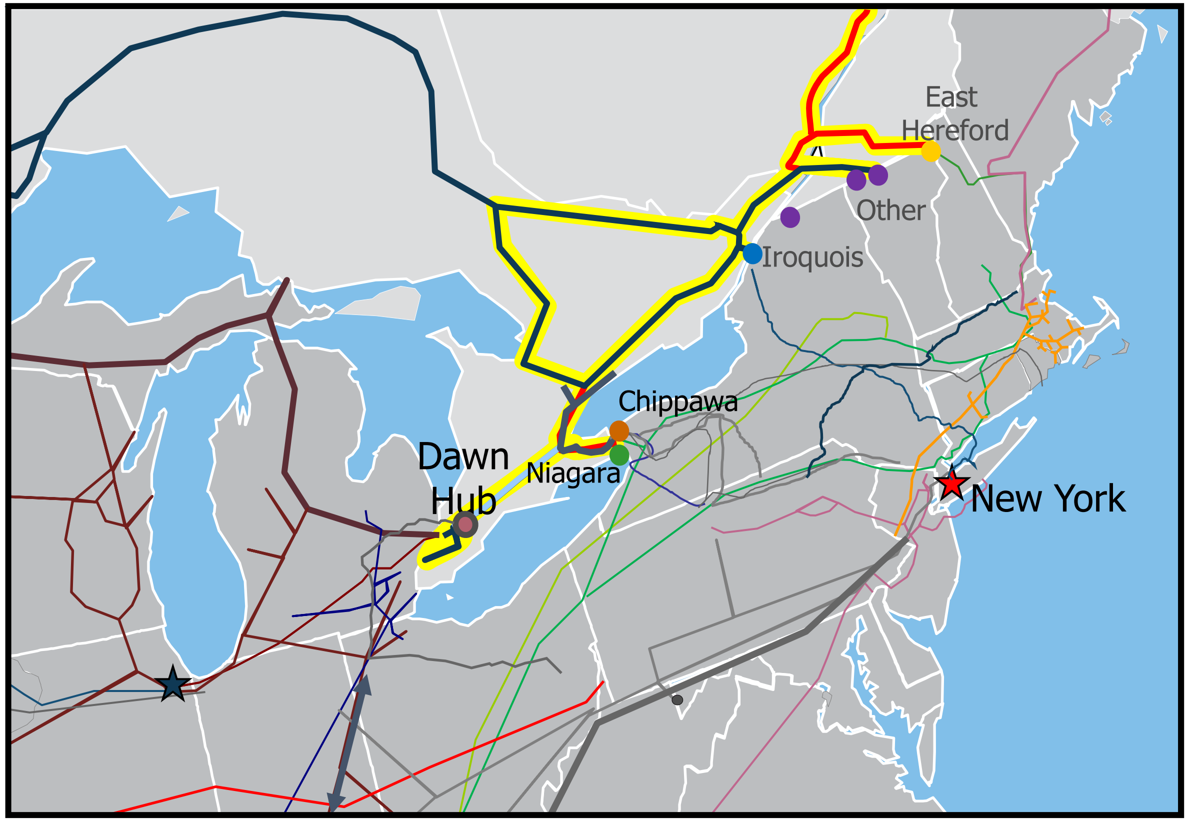
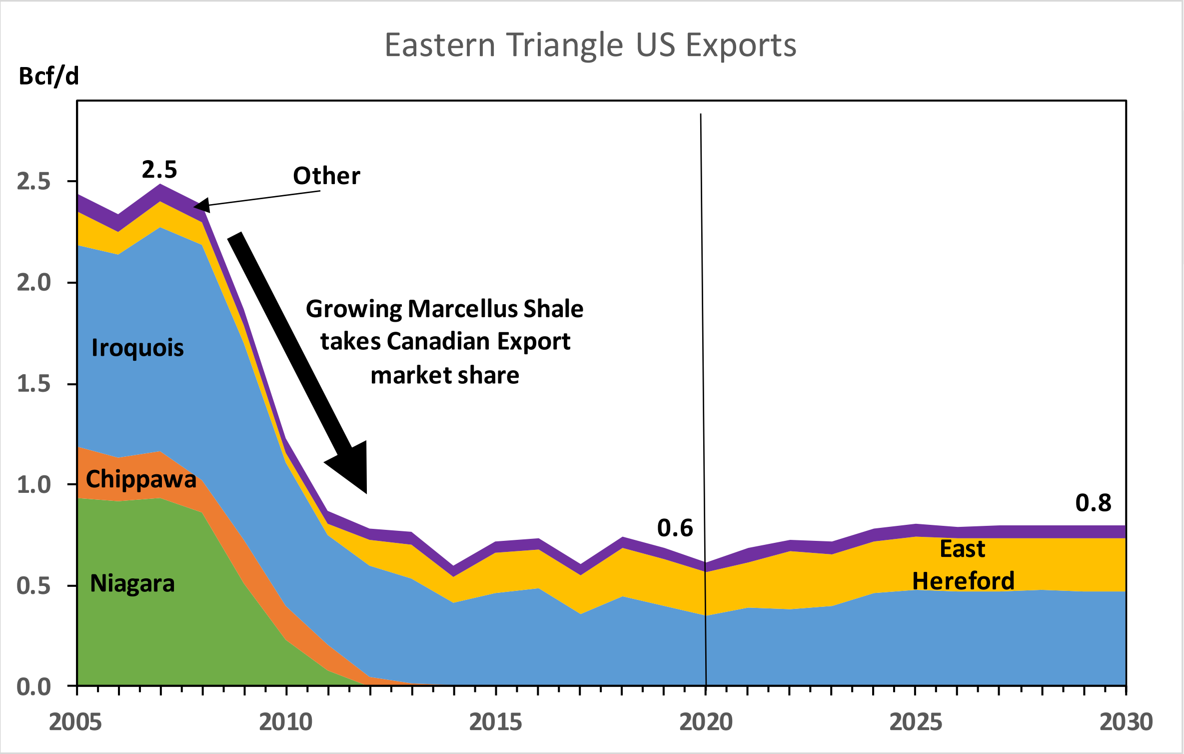
EASTERN TRIANGLE EXPORTS TO 2030





US Pipeline Projects Grow Eastern Triangle Exports

- Connecting at East Hereford, PNGTS Portland XPress will add 180 MMcf/d over three phases during the 2019-2022 time period.
- Iroquois Gas Transmission ExC Project will add 125 MMcf/d of incremental capacity through compression enhancements.

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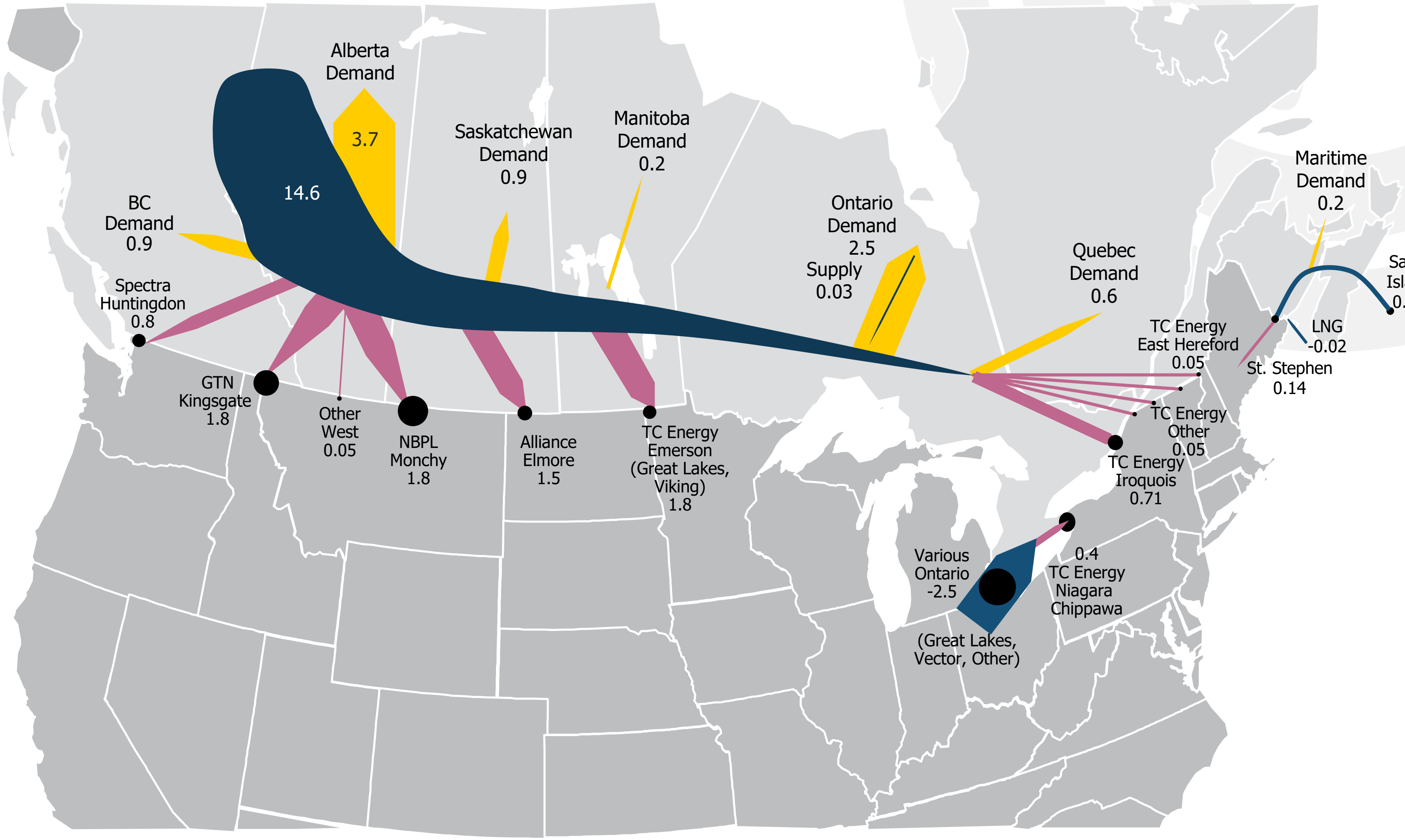
2010 CANADIAN NATURAL GAS SUPPLY-DEMAND BALANCE



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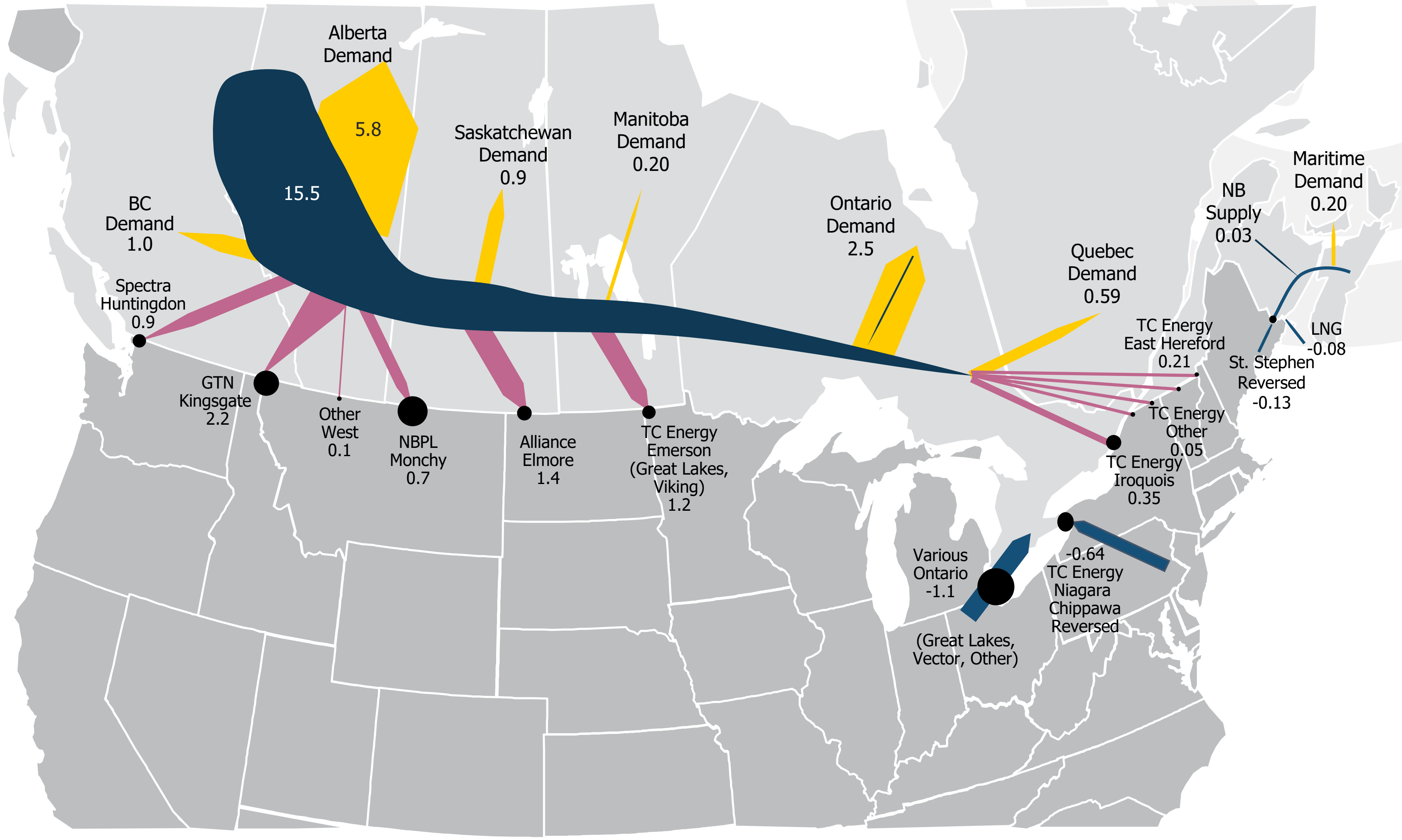
2020 CANADIAN NATURAL GAS SUPPLY-DEMAND BALANCE



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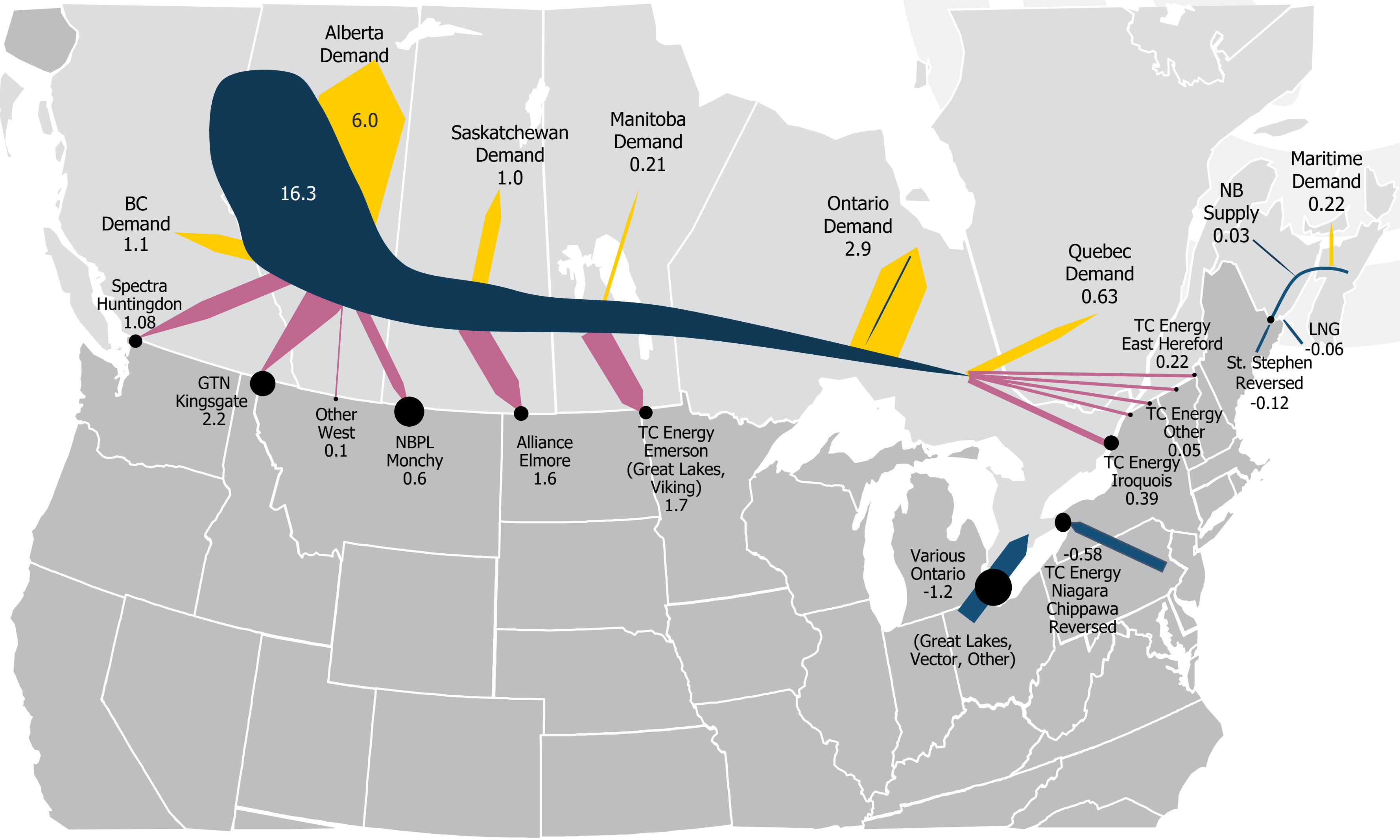
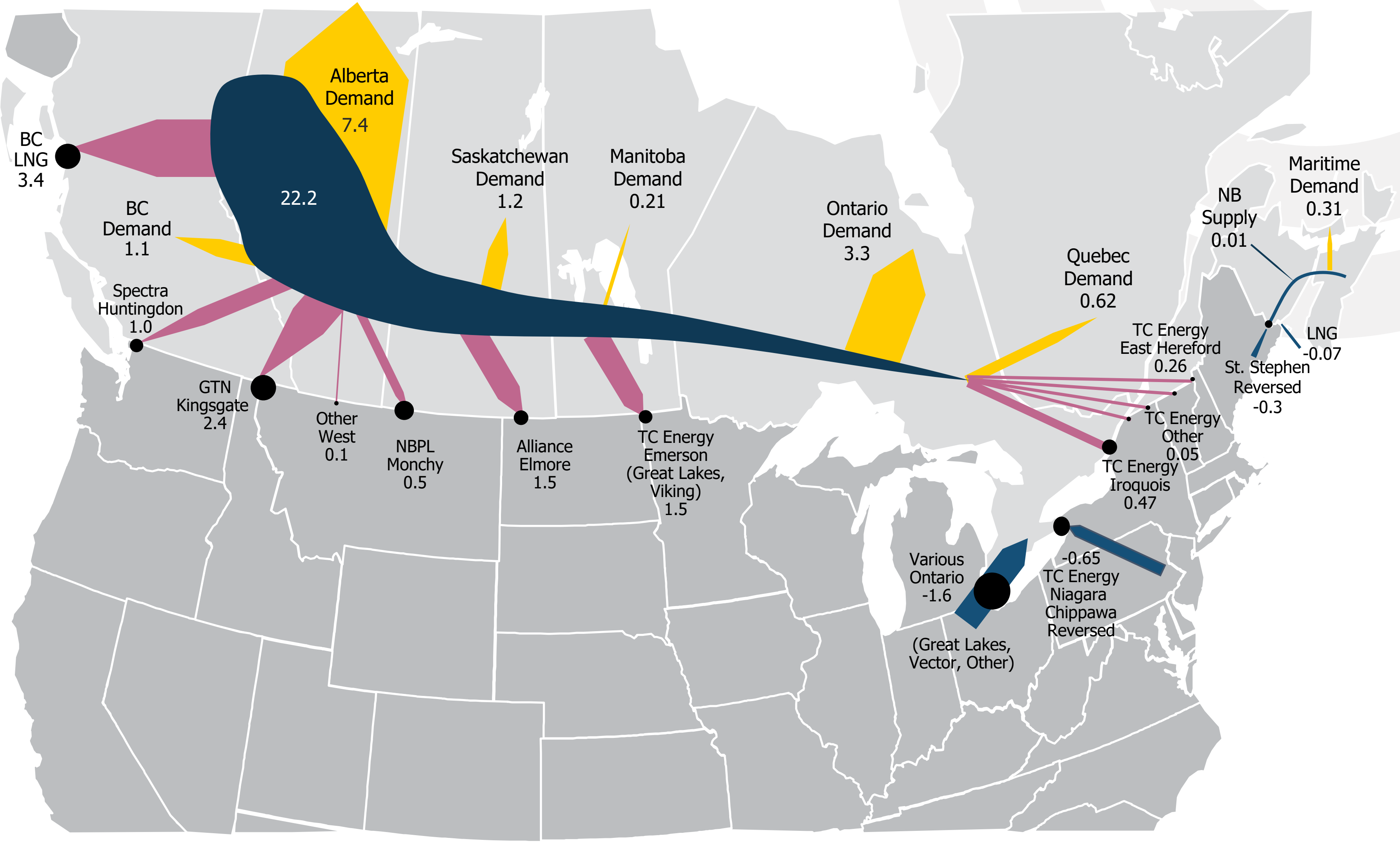
2021 CANADIAN NATURAL GAS SUPPLY-DEMAND BALANCE



2030 CANADIAN NATURAL GAS SUPPLY-DEMAND BALANCE



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Incorrys performs advanced data analysis to ensure quality and consistency among different industries and jurisdictions.

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