

Service Levels

Enbridge Liquids Pipeline
Mainline Network

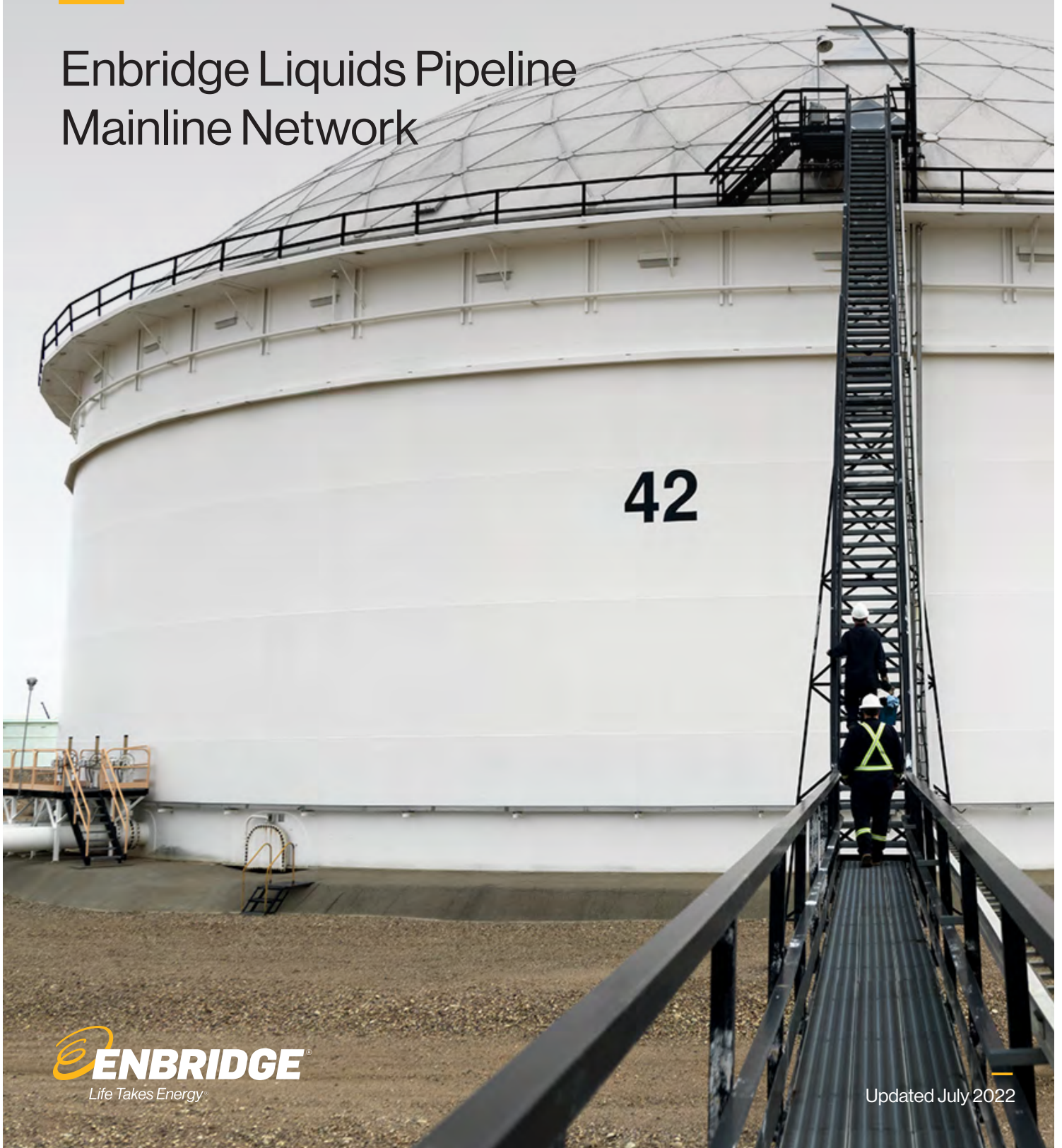


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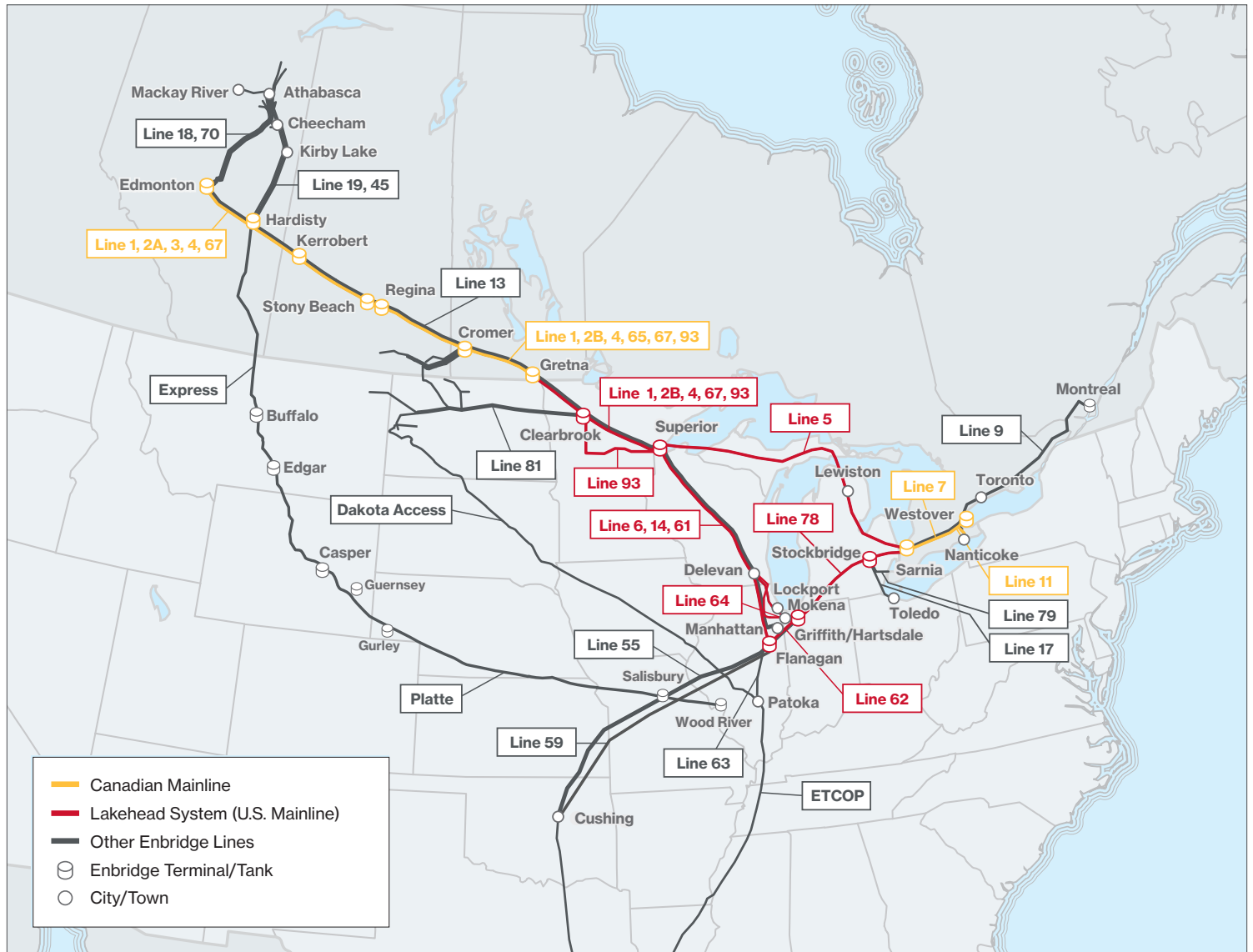
About the Service Levels

The Service Levels document outlines the services Enbridge provides on its mainline network, as well as how to do business with Enbridge.

Notes: This document is prepared and published for and on behalf of Enbridge Pipelines Inc., and Enbridge Energy Partners, L.P., and applies to the Canadian and U.S. Mainline pipeline system. Enbridge is obligated to provide transportation service pursuant to the terms and conditions specified by the tariff rules and regulations, on file with the National Energy Board (NEB) and on file with the Federal Energy Regulatory Commission (FERC) as applicable.

This document is intended to support understanding of the terms and conditions outlined in the applicable tariffs for the Enbridge mainline network. Any inconsistency between the two will be governed by the applicable tariff. The Service Levels are based on the system configuration and operating plans in place at the time of issuance, to the best of Enbridge's knowledge. The actual service of the pipeline on a day-to-day basis will vary from the guidelines contained in this document. As changes occur to the pipeline system configuration and operations, or customer requirements, revisions to the Service Levels will be undertaken to reflect such changes.

Safely getting your product to your customer



Pipeline transportation

Enbridge's network efficiently connects supply and demand across North America at the lowest cost of any land-based transportation modes. With the wide array of receipt and delivery points across our network you can get your product to your customers safely.

To get connected to the Enbridge network, please contact Enbridge Business Development at **403-231-3900**

Multiple locations served

Shippers can tender or take delivery at dozens of Enbridge-approved receipt and delivery points on the Enbridge mainline network thereby connecting producers and refiners across the continent. To request a connection to the Enbridge network, please contact Enbridge Business Development at **403-231-3900**.

Various grades of commodities

Enbridge offers service for transportation of a wide variety of Crude Petroleum, Natural Gas Liquids, and Refined Petroleum Products.

Pipeline service overview



Getting set up to ship

Obtaining Shipper status

Getting started with Enbridge begins with contacting shipper.status.request@enbridge.com and completing an application for Shipper status. During the application process, validation of credit worthiness for shipping on the Enbridge mainline will be required. Once validated, the primary shipper contact for invoicing and electronic payment by wire transfer will be set up. You must receive credit approval from Enbridge at least 10 business days prior to a monthly nomination deadline to be guaranteed the ability to nominate for that coming month.

Accessing SWIFTLINK, Enbridge's online system

SWIFTLINK is the online portal for transacting with Enbridge and is located at swiftlink.enbridge.com. Existing Shippers can request online access to SWIFTLINK by emailing swiftlink.support@enbridge.com. New Shippers need to obtain Shipper Status prior to getting set up in SWIFTLINK.

New service requests

Service for all commodities must be applied for in order to ensure proper safety, throughput, and quality controls are in place. Commodities not shipped for a period of time may be removed from service per the Commodity Expiration Process and must be applied for again. To apply for service for a commodity, and for details regarding the Enbridge Commodity Expiration Process, please login to SWIFTLINK and navigate to Reports>Reports and References>Operations>Operational Procedures>Mainline.

Crude characteristics

Each year, Enbridge compiles a summary of “crude characteristics” outlining selected physical properties of crude oils and condensates moved in the liquids pipeline system and publishes it on enbridge.com/crudestats.

Transportation service prices, rules and tariffs

The prices, rules, and detailed legal terms for service are published as tariffs and are amended from time to time. The current tariffs are published at enbridge.com/tariffs. The Shipper is responsible for ensuring all steps, rules, safety requirements, quality requirements, and terms outlined in Enbridge's tariffs are followed. To receive notice of updates to Enbridge's tariffs, subscribe online at enbridge.com/tariffs.



Quality requirements

Shippers are responsible for making sure all shipments meet the quality requirements outlined below. Enbridge may refuse any shipment that does not meet these requirements.

Shipments must also be free of any kind of physical or chemical characteristic that would make the shipment: not readily transportable; cause harm, disadvantage, or damage to the pipeline network or Enbridge; or that may affect the quality of other shipments in a material way.

Enbridge may require a certificate of specifications for a shipment. Failure to provide a certificate is grounds to refuse a shipment.

If Enbridge determines that a shipment is not in compliance with the quality requirements, Enbridge may exercise the right to remove it from the network and sell it at the Shipper's expense.

	Crude	NGL	Refined Products
Temperature	≤ 38°C	≤ 38°C	≤ 38°C
Vapour Pressure	D5191* DVPE 4:1 @ 37.8°C, D6377** VPCR 4:1 @ 37.8°C	≤ 1250 kilopascals (absolute) ASTM D1267	≤ 110 kilopascals
Sediment & Water or Particulate Concentration	≤ 0.5% / volume	Particulate: < 5mg/L Free Water: No indication at pipeline operating temperature	N/A
Density at 15°C	≤ 940 kg/m ³	N/A	N/A
Kinematic Viscosity at Line Reference Temp.	≤ 350 mm ² /second	N/A	≤ 4.3 mm ² /second at 37.8°C
Copper Strip Corrosion	N/A	≤ 2a	N/A
Free Water HAZE Test	N/A	N/A	< 6
ASTM D1500 Colour	N/A	N/A	Lighter than 3 unless artificially coloured

* A shipper shall not deliver a vapour pressure in excess of 103 Kilopascal (kPa) for Condensate at any time of the year.

** Light and Medium Crude receipts shall not exceed a vapour pressure in excess of 85 kPa during the period May 1 through Oct. 31 of the year, or a vapour pressure in excess of 95 kPa during the period Nov. 1 through April 30 of the year. Heavy Crude receipts shall not exceed a vapour pressure in excess of 70 kPa during the period May 1 through Nov. 30 of the year, or a vapour pressure in excess of 76 kPa during the period Dec. 1 through April 30 of the year.

The Equalization procedure applies to selected streams. This procedure and important equalization information is available on the Canadian Petroleum Equalization website at industryeq.ca.

Enbridge outlines the normal throughput and quality management process in Table 5 – Tank Utilization (enbridge.com/crudestats).

Quality pooling

Enbridge groups similar type crudes into common pools, in order to optimize system capacity. Detailed reference documentation including pool specifications can be found on the Enbridge website at enbridge.com/crudestats and also within SWIFTLINK at swiftlink.enbridge.com (Reports>Reports and References>General>Quality Pooling Reference).

Testing

Enbridge conducts various standard tests for commodities transported in the pipeline system. These standard tests are summarized for each commodity with respect to location, frequency, and type of test on the Enbridge website (enbridge.com/crudestats).

Testing performed by Enbridge does not relieve Shippers from full responsibility for testing their own shipments and certifying the accuracy of shipment quality at injection.

Buffer or interface material

To support the quality of shipments when moving next to different grades of commodities, shippers may be required to supply buffer material as specified by Enbridge. The buffer material will move as part of the shipment, will be accepted at the delivery point, and will be subject to the price of transportation set out in the applicable Enbridge tariff.

Nominate



Nominations are provided by shippers for all volumes they plan to move. Enbridge will allocate all lines to ensure the most effective use of available capacity. Shipments tendered directly to Enbridge as well as those arriving at the Enbridge mainline system from another pipeline or any other facility must also be included in nominations. Any planned buffer material must also be included in the nomination.

Nominations received by Enbridge are subject to the rates, rules and terms applicable to transportation by Enbridge.

A shipment may be handled by multiple pipelines, each of which may have their own rules, terms, transit times and processes.

How to provide nominations

Nominations are handled online through SWIFTLINK at swiftlink.enbridge.com. The online system will guide you through entering the required information for submitting or revising a nomination. The detailed nomination schedule includes key COLC (Crude Oil Logistics Committee) dates and required time frame and can be found on SWIFTLINK (Reports>Reports and References>General>Notice of Shipment Due Dates).

Apportionment

If more volumes are nominated than the available capacity for any point on the network, the affected nominations will be apportioned to ensure the nominations fit within the available capacity for the month in question. When apportionment is called by Enbridge, revised nominations are due back the following business day.

Nomination process

Nominations are received and analyzed by Enbridge to ensure sufficient capacity at each segment of the network. As part of the analysis, Enbridge will verify for valid supply at source and a valid destination.

Shippers must ensure nominations for each commodity are balanced for equal volumes planned for supply at origin and delivery at destination.

Enbridge may request revised nominations if discrepancies are identified in original nominations provided. Subject to the available capacity and operating conditions, Enbridge may accept nominations as received or revised nominations.

Nomination accuracy

Accurate nominations are critical to ensuring capacity on the Enbridge network is used effectively. All nominations will be subject to the penalty specified in the Non-Performance Penalty guidelines as outlined in the Mainline Rules and Regulations.

Batch sizes

Nominations should be made in increments of the standard batch size on the Enbridge network, 10,000m³. Physical and operating factors of the network sometimes require or allow a larger or smaller batch size. Batch sizes are reflected in the schedule.

Verifications

In order to ship on the Enbridge system, Upstream and Downstream verifications need to be provided in conjunction with all nominated volumes by Shippers to validate volumes directed to the Enbridge system.

These documents are available on SWIFTLINK:
Reports>Reports and References>General>UpstreamVerification
Reports>Reports and References>General>DestinationVerification

Schedule

Each month, Enbridge creates the schedule to optimize the accepted month's nominations by balancing supply, capacity, batch quality, batch interfaces, and delivery requirements. The schedule is produced by Enbridge prior to the start of the NOS month. The schedule is then updated regularly to reflect requested and required changes.

To view the schedule, please use SWIFTLINK online at swiftlink.enbridge.com.

Line space queue or “standby-list”

Once the schedule is completed, requests for additional shipments can be made via SWIFTLINK. Shipments requested this way may or may not have the opportunity to move in the given month depending on the operating conditions as well as the timely, full, and accurate tender of scheduled shipments by Shippers on the network.

Shippers may request one heavy, one medium, and one light batch at each source location after 0800MT the day after the monthly schedule is released on SWIFTLINK. Enbridge will contact the next Shipper in line on a first-come, first-served basis if space becomes available. Once contacted, the Shipper will have to provide supply, source, and destination verification as required; otherwise, the space will be offered to the next Shipper in line. Enbridge will continue this process until all available space is filled. For requests made for line space, if the shipper is unable to meet the above requirements when called upon, then all requests for additional line space from that shipper will be removed and the shipper will not be able to add another request for the remainder of that month.

Batches de-assignment or cancelled

From time to time, receipt or delivery facility performance negatively impacts the network such that total network throughput capacity is lost. Examples of such performance include, though are not limited to, delays in taking delivery of a shipment and delays in making shipments available for injection as scheduled. In such cases, batches may be de-assigned from the schedule to ensure the schedule remains within the available capacity of the network, to optimize the schedule, or to protect the overall network throughput. Once Enbridge advises the Shipper that a batch has been de-assigned, an opportunity to make up that volume within 24 hours will be provided as long as there is capacity remaining in the schedule.

Retention and working stock

Retention stock is the term for the volume of petroleum product required to maintain continuous operation within the liquids pipeline network. Working stock is a part of retention stock and shipper requirements are reviewed quarterly. Enbridge will advise you of your share of the system working stock requirements and the associated volumes will be accounted for in monthly balancing.





Schedule, batch size, timing and flow rate

The schedule is visible online on SWIFTLINK at swiftlink.enbridge.com with batch-level detail for each injection/delivery point for each shipper. It is critical that each batch is available to be injected on schedule, at the planned size and flow-rate. Each batch must be owned free and clear by the Shipper. Enbridge will specify volumes, rates, ranges of rates, and/or batch sizes for acceptance of shipments. Only approved facilities may inject or take delivery of shipments from the Enbridge network.

Connecting facilities (i.e. feeder pipelines) must provide a detailed breakdown of ownership ("splits") no later than Thursday of each week or as directed from time to time in the Crude Oil Logistics Committee (COLC) calendar.

Receipt tank use

All tanks on the Enbridge network are for break-out and throughput protection purposes only. Receipt tanks are not for storage. Any temporary holding of batches must be minimized by close adherence to the scheduled injection times.

Receipt tickets

Tickets showing the volume, type, temperature, density, sediment and water, and any other data specified from time to time are issued on receipt of a batch.

Schedule changes, change requests and redirects

Post schedule release, changes to a batch may be requested before injection. Subject to capacity and operating conditions, changes may be accepted at Enbridge's sole discretion. Changes impacting the route, size, schedule, or destination, especially during apportionment, are more likely to impact network operations and are therefore at higher risk of being declined.

When a batch has been injected, changes to a batch may be requested and, subject to the capacity and operating conditions, may be accepted at Enbridge's sole discretion. Changes impacting the route, size, schedule, or destination, especially during apportionment, are more likely to impact network operations and are therefore at higher risk of being declined. To request a change, please login to SWIFTLINK and complete the change request form with all details requested.

All changes must be requested before 14:00MT each day; changes requested after 14:00MT may be handled the next business day. Changes to batches within 48 hours of arrival at destination must be submitted by a supervisor of the usual requester with a written summary of the business justification for the required change. Enbridge will perform a more detailed review of collateral impacts and the request may still be declined.

A transfer of ownership can also be requested to transfer all rights and obligations for the batch in question. Requests for transfers are made through SWIFTLINK. Using SWIFTLINK, both the transferor and transferee must meet Enbridge's requirements of shipping on the Enbridge network including, but not limited to, Financial Assurances before Enbridge will provide a notice of acceptance of the transfer.

Deliver

Schedule, batch size, timing and flow rate

Each delivery facility is provided daily updates on SWIFTLINK at swiftlink.enbridge.com for shipments scheduled to arrive. Batch-level detail is available for each delivery. Careful coordination between Shippers and delivery facilities relative to capacity and the current schedule is critical to ensuring the overall network throughput is protected. Ensuring every batch is immediately accepted on arrival at destination is the Shipper's responsibility to perform or have performed. Enbridge may specify required flow or inventory rate or range of rates for each delivery point. Shippers are expected to manage inventory within acceptable rates or ranges of rates by commodity group and by location.

Terminal transfers

Given the expansion of supply, mainline throughput, and terminal maintenance, the windows to complete terminal transfers have decreased. Terminal scheduling optimizes movements within the terminals at Edmonton and Hardisty in order to ensure that commercial deals our customers enter into are completed on time.

Failure to take delivery

If Enbridge determines a shipment is not removed upon delivery, Enbridge may exercise the right to remove it from the network and sell it at the Shipper's expense. The Shipper is responsible for all costs and losses for any disruption caused to the Enbridge network for failing to take delivery of a shipment.

Delivery tank use

All tanks on the Enbridge network are for break-out and throughput protection purposes only. Delivery and break-out tanks are not for storage; therefore, shipments must be immediately accepted upon arrival. Any temporary holding of batches will only be granted by the consent of Enbridge.

Delivery tickets

Tickets showing the volume, type, temperature, density, sediment and water, and any other data specified from time to time are issued on delivery of a batch.

Customs

Batches delivering at a U.S. delivery location may require an entry for U.S. Customs purposes. Currently, there are a number of prescribed procedures that Enbridge is required to follow, dependent upon the port of entry. In most cases, Enbridge is required to provide a copy of the delivery ticket to the Shipper or Consignee and/or their designated Customs broker. The delivery ticket is required as support for the entry submitted to U.S. Customs. As such, it is imperative that the Shippers provide the most up to date contact information to enable the timely delivery of tickets to authorized persons. Enbridge is currently working with U.S. Customs to standardize and modernize the entry requirements and will provide updated information to our customers when available.



Invoicing and payment

Invoicing is performed at mid-month and at month-end with standard invoices issued electronically on SWIFTLINK at swiftlink.enbridge.com. Shippers are responsible for retrieving their invoices online, as only ad-hoc invoices are emailed directly to the invoicing contact identified when Shipper status is set up.

At month-end, Shipper deliveries are balanced for the net invoicing or payment for changes in total, represented in cubic meters, on the Enbridge mainline system. Additional details can be found in the Practice Applicable to Automatic Balancing online at enbridge.com/tariffs.

Shippers are responsible for providing electronic payment within the terms on the invoice. Each payment must include the relevant invoice number to facilitate matching of payments received to invoiced amounts.

Full payment is always due on time. If you have any payment-related questions, then please get in touch with the contact listed on the relevant invoice. Enbridge recognizes the industry standard “cheque exchange” on the 25th of each month.

In the event that accepted batch volume does not match actual injected volume, Shippers will be subject to the Non-Performance penalty as outlines in the NEB Tariff 426 Appendix, Section 18.



Communication and important contacts

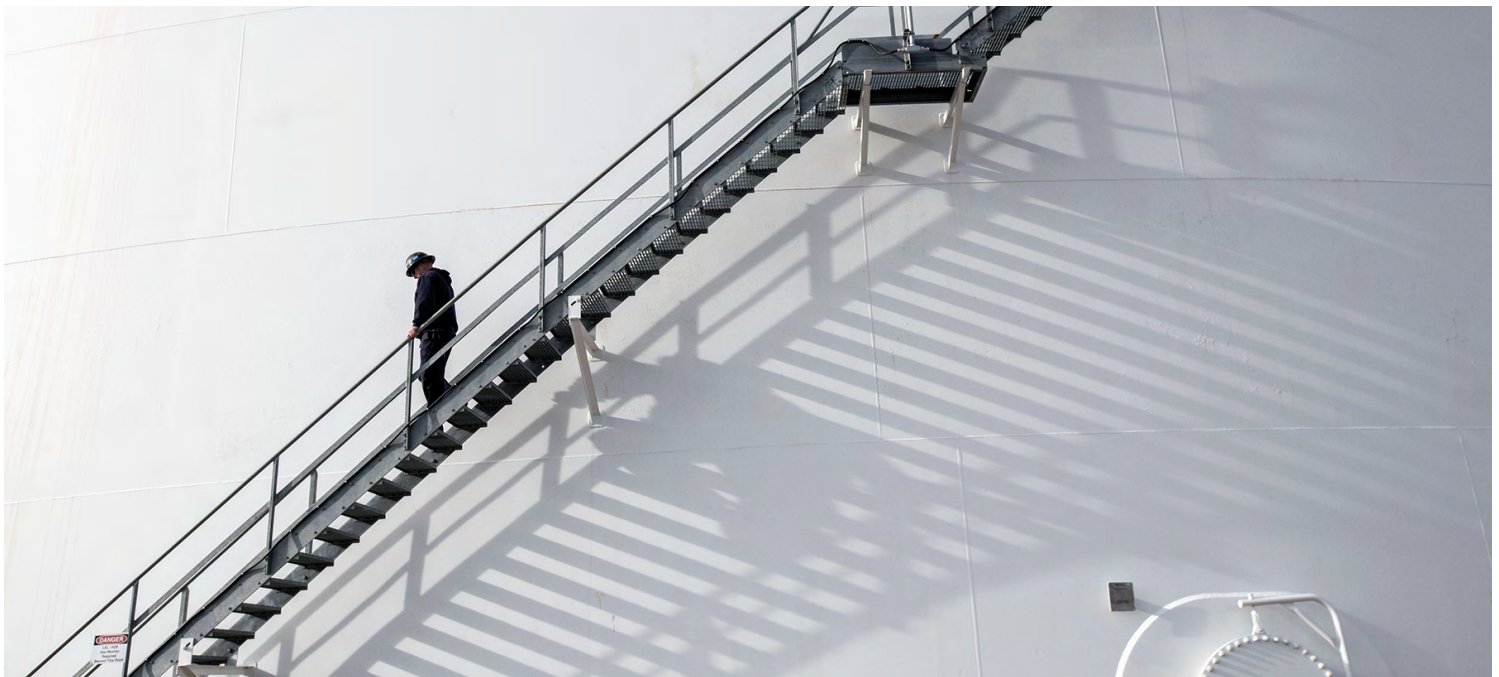
Enbridge's SWIFTLINK online portal is the primary means of communicating important information and notices with our shippers. SWIFTLINK handles nominations, schedules, batch details, invoicing details, as well as extensive reporting and more.

Enbridge also holds quarterly shipper meetings where system status, operations initiatives to maximize network efficiency, and general updates are reviewed.

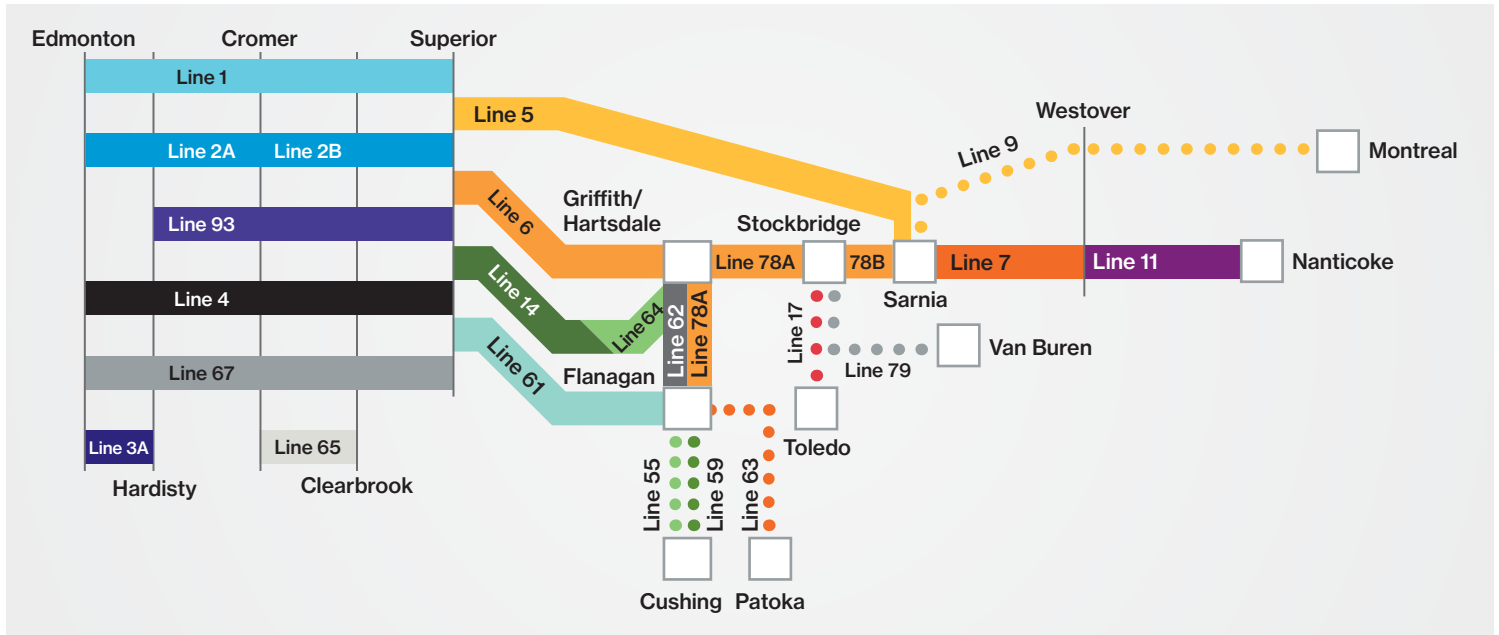
In case of a pipeline emergency, find a safe place to **call 911** and then call Enbridge's toll-free emergency number:

1-877-420-8800

	Phone	Email
Pipeline emergency number	1-877-420-8800	N/A
Customer service (Nominations planning, scheduling, supply)		cs.upstream.scheduling@enbridge.com cs.downstream.scheduling@enbridge.com (Commodity/geographic specific email addresses are listed in SWIFTLINK (References > Contacts))
Customs	N/A	customs@enbridge.com
Enbridge business development	403-231-3900	N/A
Force majeure notices	N/A	enb.mainline.force.majeure@enbridge.com
Shipper status request	1-800-246-5411	shipper.status.request@enbridge.com
SWIFTLINK help	1-800-246-5411	swiftlink.support@enbridge.com
Tariffs	1-800-246-5411	enbridge-tariffs@enbridge.com

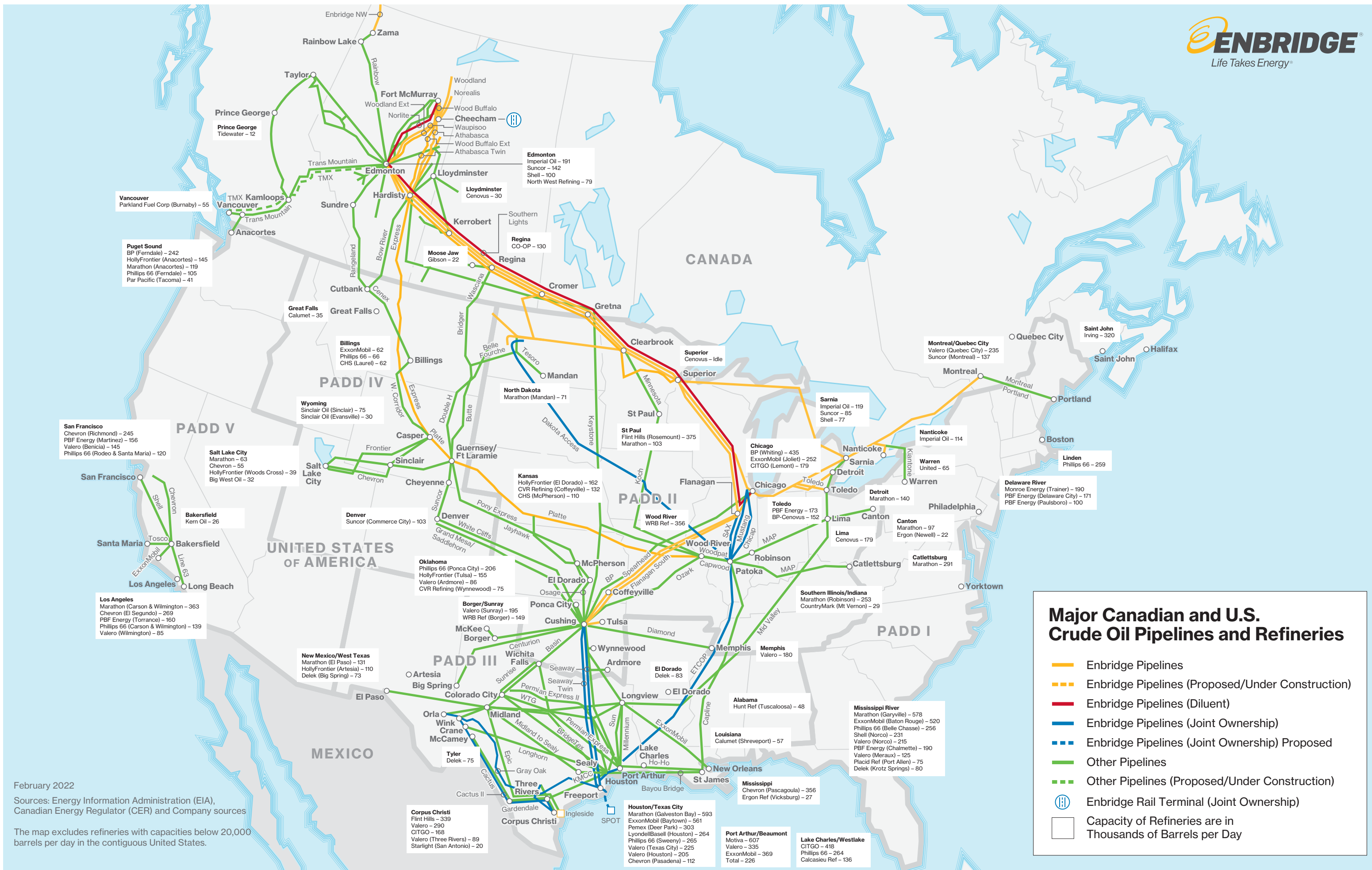


Pipeline system configuration, Q1 2022



<p>Line 1</p> <p>37,600 m³/d (237 kbpd) 18"/20" – 1,767 km (1,098 mi) - NGL - Refined Products - Light</p>	<p>Line 4</p> <p>126,500 m³/d (796 kbpd) 36"/48" – 1,770 km (1,100 mi) - Heavy - Medium (Ex-Clearbrook) - Light (Ex-Clearbrook)</p>	<p>Line 78B</p> <p>79,500 m³/d (500 kbpd) 30"/36" – 175 km (109 mi) - Light - Medium - Heavy</p>	<p>Line 61</p> <p>190,800 m³/d (1,200 kbpd) 42" – 744 km (462 mi) - Light - Medium - Heavy</p>	<p>Not part of the Enbridge Mainline System</p>	
<p>Line 2A</p> <p>70,300 m³/d (442 kbpd) 24" – 966 km (600 mi) - Condensates - Light - Heavy</p>	<p>Line 5</p> <p>85,900 m³/d (540 kbpd) 30" – 1,038 km (645 mi) - NGL - Light</p>	<p>Line 65</p> <p>29,500 m³/d (186 kbpd) 20" – 504 km (313 mi) - Light - Medium</p>	<p>Line 67</p> <p>127,200 m³/d (800 kbpd) 36" – 1,790 km (1,112 mi) - Heavy</p>	<p>Line 9</p> <p>47,700 m³/d (300 kbpd) 30" – 832 km (517 mi) - Light - Medium - Heavy</p>	<p>Line 59</p> <p>104,900 m³/d (660 kbpd) 36" – 954 km (593 mi) - Light - Medium - Heavy</p>
<p>Line 2B</p> <p>70,300 m³/d (442 kbpd) 24"/26" – 808 km (502 mi) - Light</p>	<p>Line 6</p> <p>106,000 m³/d (667 kbpd) 34" – 748 km (465 mi) - Light - Medium - Heavy</p>	<p>Line 11</p> <p>18,600 m³/d (117 kbpd) 16"/20" – 76 km (47 mi) - Light - Medium - Heavy</p>	<p>Line 62</p> <p>26,400 m³/d (166 kbpd) 22" – 121 km (75 mi) - Light - Medium</p>	<p>Line 17</p> <p>16,000 m³/d (100 kbpd) 16" – 142 km (88 mi) - Light - Medium - Heavy</p>	<p>Line 79</p> <p>12,700 m³/d (80 kbpd) 20"/16" – 98 km (61 mi) - Light - Medium - Heavy</p>
<p>Line 3A</p> <p>62,000 m³/d (390 kbpd) 34" – 170 km (106 mi) - Light - Condensate</p>	<p>Line 7</p> <p>28,600 m³/d (180 kbpd) 20" – 193 km (120 mi) - Light - Medium - Heavy</p>	<p>Line 62</p> <p>26,400 m³/d (166 kbpd) 22" – 121 km (75 mi) - Light - Medium</p>	<p>Line 62</p> <p>26,400 m³/d (166 kbpd) 22" – 121 km (75 mi) - Light - Medium</p>	<p>Line 55</p> <p>30,700 m³/d (193 kbpd) 22"/24" – 938 km (583 mi) - Light - Medium - Heavy</p>	<p>Line 63</p> <p>47,700 m³/d (300 kbpd) 24" – 270 km (168 mi) - Light - Medium - Heavy</p>
<p>Line 93</p> <p>120,830 m³/d (760 kbpd) 36" – 1,719 km (1,068 mi) - Light - Heavy</p>	<p>Line 78A</p> <p>90,600 m³/d (570 kbpd) 36" – 425 km (264 mi) - Light - Medium - Heavy</p>	<p>Line 14/64</p> <p>54,600 m³/d (343 kbpd) 24" – 784 km (487 mi) - Light - Medium</p>			

NOTE: Capacities provided are Average Annual Capacities and do not include current restrictions.



Major Canadian and U.S. Crude Oil Pipelines and Refineries

- Enbridge Pipelines
- Enbridge Pipelines (Proposed/Under Construction)
- Enbridge Pipelines (Diluent)
- Enbridge Pipelines (Joint Ownership)
- Enbridge Pipelines (Joint Ownership) Proposed
- Other Pipelines
- Other Pipelines (Proposed/Under Construction)
- Enbridge Rail Terminal (Joint Ownership)
- Capacity of Refineries are in Thousands of Barrels per Day

February 2022
 Sources: Energy Information Administration (EIA), Canadian Energy Regulator (CER) and Company sources
 The map excludes refineries with capacities below 20,000 barrels per day in the contiguous United States.

Appendix 1 - important references

Content	Link
Non-Performance Penalty Guidelines	SWIFTLINK: Reports > General > Non Performance Penalty
Verification Documentation	SWIFTLINK: Upstream – Reports > General > Upstream Verification Destination – Reports > General > Destination Verification
Tables 1A and 1B Commodity Receipt Details	enbridge.com/projects-and-infrastructure/for-shippers/mainline-service-levels
Table 2 Commodity Routing Details	enbridge.com/projects-and-infrastructure/for-shippers/mainline-service-levels
Table 5 Tank Utilization	enbridge.com/projects-and-infrastructure/for-shippers/crude-oil-characteristics
Table 6 Commodity Testing	enbridge.com/projects-and-infrastructure/for-shippers/crude-oil-characteristics
Crude Oil Characteristics	enbridge.com/projects-and-infrastructure/for-shippers/crude-oil-characteristics
Crude Oil Commodity Map	enbridge.com/projects-and-infrastructure/for-shippers/crude-oil-characteristics
Quality Pooling Specification Package	enbridge.com/projects-and-infrastructure/for-shippers/crude-oil-characteristics

