

# **Enbridge's Energy Infrastructure Projects**

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## Crude Oil and Liquids Pipelines

### Line 3 Replacement Program

Construction of the \$5.3-billion Canadian portion of the Line 3 Replacement Program is complete and began commercial service in December 2019.

The \$4-billion U.S. portion of the Line 3 Replacement Program, known as the Line 3 Replacement Project, consisted of replacing 34-inch pipe with new 36-inch pipe for 13 miles in North Dakota, 337 miles in Minnesota, and 14 miles in Wisconsin. Construction wrapped up in the U.S. in October 2021.

With project construction complete, the line is now known as Line 93.

- Type: Crude oil and liquids pipeline
- Status: Complete
- Length: 1,031 miles (1,660 km)
- In-service date: December 2019 (Canada); October 2021 (U.S.)
- Initial capacity: 760,000 barrels per day
- Expected to transport: Light, medium and heavy crude
- Estimated capital cost: C\$5.3 billion in Canada, US\$4 billion in the United States



# Crude Oil Tank Terminals

## Ingleside Phase 6 Tank Expansion Project

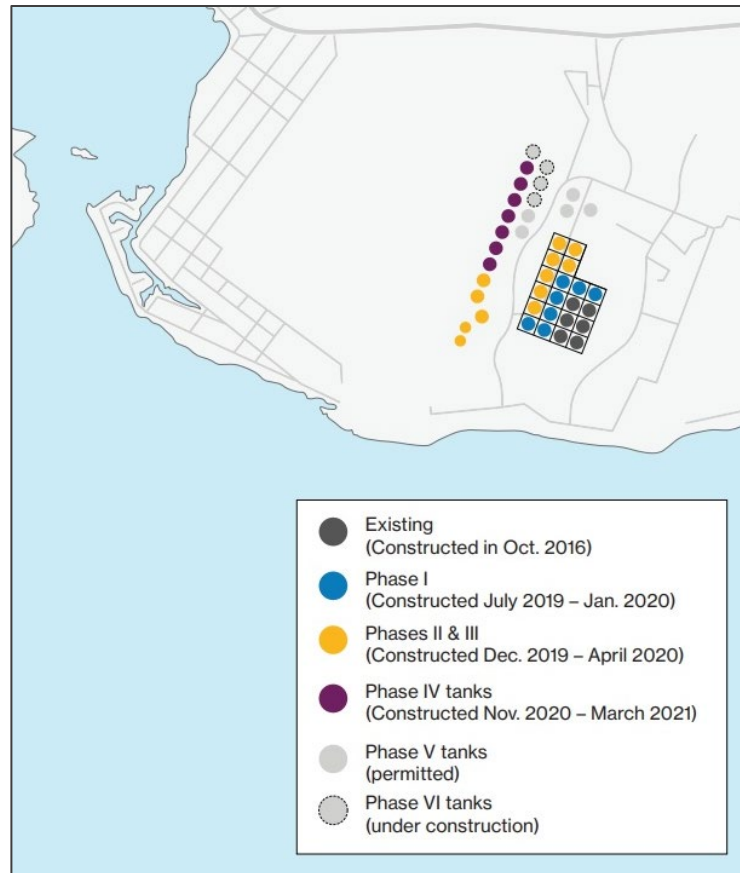
The Ingleside Phase 6 Tank Expansion Project expands the crude oil storage capacity at Enbridge Ingleside Energy Center (EIEC).

The project includes the construction of four additional 490,000-bbl tanks and related equipment at EIEC that will connect to existing facility infrastructure.

Construction is scheduled to start in January 2023 and is estimated to take 18 to 24 months to complete.

The tanks will be phased into service as they are constructed. The first tank is anticipated to be placed in service in 2024.

- **Type:** Crude oil tanks
- **In-service target date:** 2024, phased into service as constructed
- **Ownership:** Enbridge (100%)



# Natural Gas Transmission Pipelines

## Aspen Point Program

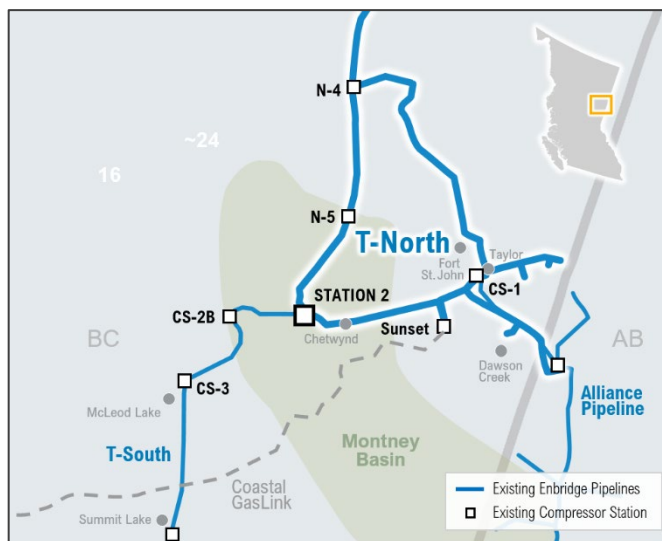
Westcoast Energy Inc., a wholly owned affiliate of Enbridge Inc., is undertaking an expansion of the T-North section of its BC Pipeline to serve growing regional demand for natural gas and potential West Coast LNG exports.

The Aspen Point Program, with a preliminary capital cost of C\$1.2 billion, will provide up to 535 million cubic feet per day (MMcf/d) of new transportation capacity.

This T-North expansion project will consist of compressor unit additions, pipeline looping and other ancillary station modifications.

### Project overview:

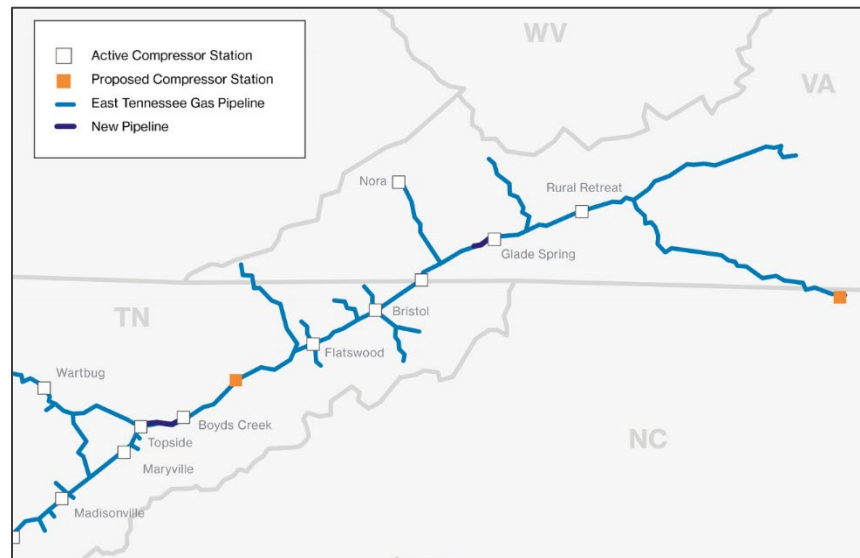
- Type: Natural gas pipeline expansion
- Status: Proposed
- Capacity expansion: 535 MMcf/d
- Expected to transport: Natural gas
- In-service target date: 2026
- Ownership: Enbridge Inc.
- Operator: Westcoast Energy Inc.



## East Tennessee Natural Gas System Alignment Program

Enbridge, North America's largest energy infrastructure company, is planning to modify portions of its existing East Tennessee Natural Gas (ETNG) pipeline system, which has supplied natural gas to customers for more than 70 years. The proposed changes will improve the company's ability to meet shifting customer needs while continuing to provide affordable and reliable energy.

The East Tennessee Natural Gas System Alignment Program (ETNG SA Program) will consist of four projects across three states:



### Tennessee

- Approximately 16.5 miles of new 24-inch-diameter pipeline next to an existing 16-inch-diameter pipeline within ETNG's existing pipeline right-of-way as much as possible in Knox and Sevier Counties
- A new electrically driven natural gas compressor station on open land along ETNG's existing pipeline right-of-way in Jefferson County

### Virginia

- Replacement of 6.5 miles of existing 8-inch pipe with new 24-inch pipe within ETNG's existing pipeline right-of-way in Washington County

### North Carolina

- A new electrically driven natural gas compressor station on open land along ETNG's existing pipeline right-of-way in Rockingham County
- Work on the ETNG SA Program will be located along the existing pipeline system's right-of-way where possible to minimize impacts to landowners and the environment.

### Project overview:

- Type: Natural gas pipeline system modification
- Status: In development
- Expected to transport: Natural gas
- Ownership: Enbridge Inc.
- Expected in-service date: Fall 2027

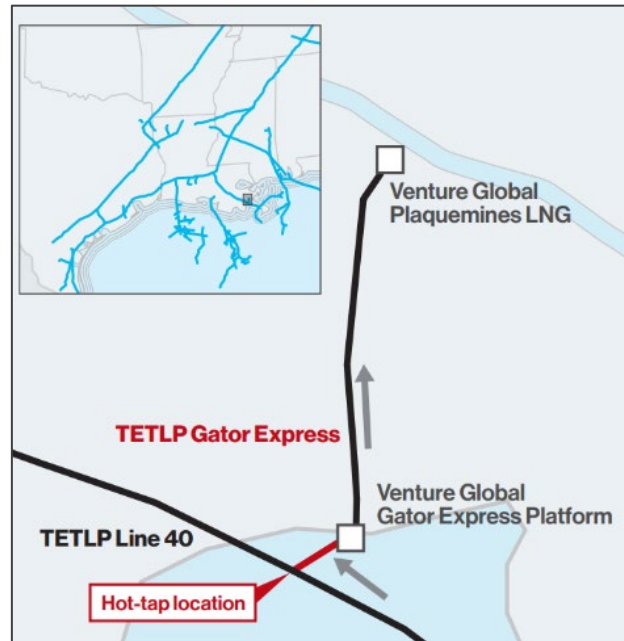
### Gator Express Meter Project

The Gator Express Meter Project efficiently expands Texas Eastern's existing infrastructure and transportation capacity to serve Venture Global's Plaquemines LNG export facility.

Texas Eastern Transmission, LP ("Texas Eastern") proposes to construct, own and operate new metering and regulating facilities (M&R facilities) to be installed on Venture Global's Gator Express Platform, as well as interconnection piping and related facilities extending from Texas Eastern's Line 40 to the M&R facilities.

Once in-service, the project will supply 240,000 dekatherms per day (Dth/d) of firm capacity from Texas Eastern's Line 40, with ultimate delivery to Venture Global's Plaquemines LNG facility in Plaquemines Parish, Louisiana, approximately 20 miles south of New Orleans.

- Type: Natural gas pipeline
- Peak day capacity: 240,000 Dth/d
- In-service target date: 2023
- Docket number: CP22-43-000
- Ownership: Enbridge Inc. (100%)



## Ridgeline Expansion Project

Enbridge is proud to be working with the Tennessee Valley Authority (TVA) on a project that would provide affordable and cleaner energy for the utility's customers.

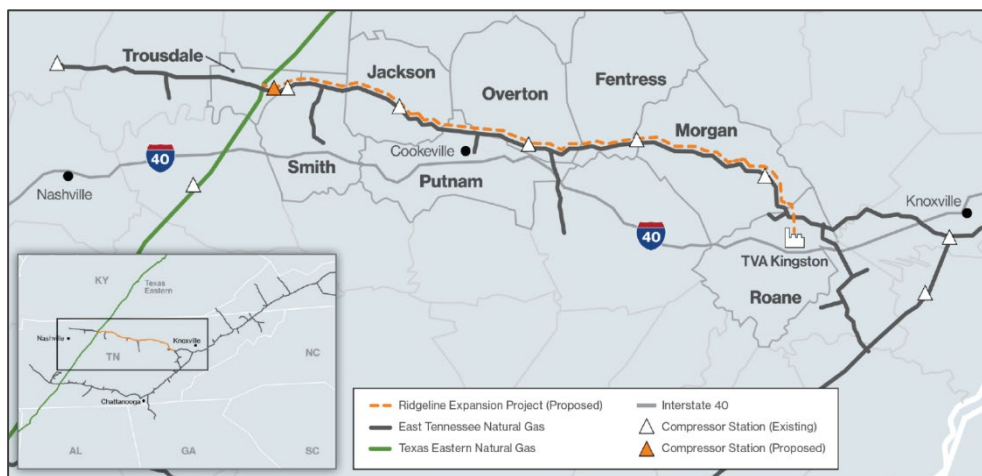
We are proposing to design, construct and operate the Ridgeline Expansion Project (Ridgeline), an expansion of Enbridge's existing East Tennessee Natural Gas (ETNG) system.

The purpose of this proposed project is to provide natural gas to serve one of the power generation options that TVA is currently considering to replace the Kingston Fossil Plant. Replacing coal-fired generation at the Kingston Fossil Plant with natural gas would provide Tennesseans with a lower-carbon, cleaner-burning energy source as we transition toward the future.

The proposed scope includes the installation of approximately 117 miles of 30-inch pipeline looping, an approximately 8-mile 24-inch lateral and one electric-powered compressor station. The majority of the route for the proposed pipeline would be located within the existing system's right-of-way where possible to minimize impacts to landowners and the environment.

Ridgeline is in the preliminary phase of project development. All necessary regulatory authorizations from the Federal Energy Regulatory Commission (FERC) and other federal and state agencies are required before construction of the project can commence. Pending a positive final investment decision and the approval and receipt of all necessary permits, construction would begin in 2025 with a target in-service date of fall 2026.

- Type: Natural gas pipeline
- Status: Under review
- Expected to transport: Natural gas
- In-service target date: Fall 2026
- Ownership: Enbridge Inc. (100%)





### **Rio Bravo Pipeline Project**

The Rio Bravo Pipeline Project is designed to transport up to 4.5 billion cubic feet per day of natural gas from the Agua Dulce supply area to NextDecade's Rio Grande LNG project in Brownsville, Texas.

Enbridge entered into a definitive agreement on Feb. 13, 2020 whereby Enbridge would acquire Rio Bravo Pipeline Company, LLC (RBPL) from NextDecade for a cash purchase price not to exceed \$25 million, with \$15 million paid at closing and the balance paid upon NextDecade's reaching a positive final investment decision (FID) on its Rio Grande LNG export facility in the Port of Brownsville, Texas.

Enbridge and NextDecade in September 2019 had announced a Memorandum of Understanding (MOU) to jointly pursue the development of the Rio Bravo Pipeline (Rio Bravo) and other natural gas pipelines in South Texas to transport natural gas to NextDecade's Rio Grande LNG project located in Brownsville, Texas.

In November 2019, the Federal Energy Regulatory Commission (FERC) issued an order authorizing the siting, construction, and operation of NextDecade's Rio Grande LNG project and the Rio Bravo Pipeline. FERC in January 2020 issued a final order on rehearing for the Rio Grande LNG project and the Rio Bravo Pipeline.

Enbridge now owns 100% of RBPL and is responsible for the development, financing, construction, and operations of the Rio Bravo Pipeline. NextDecade will continue to be responsible for the development, financing, construction, and operations of its Rio Grande LNG export facility.

[Read the Feb. 13, 2020 news release.](#)

- Type: Natural gas pipeline
- Status: Proposed
- Peak day capacity: 4.5 Bcf/d (billion cubic feet per day)
- Expected to transport: Natural gas
- Ownership: Enbridge (100%)

## Sunrise Expansion Program

Westcoast Energy Inc., an Enbridge company, owns and operates the Westcoast pipeline system, British Columbia's major natural gas transmission infrastructure system.

This system transports processed natural gas to consumers throughout the province, Alberta and the Pacific Northwest of the United States.

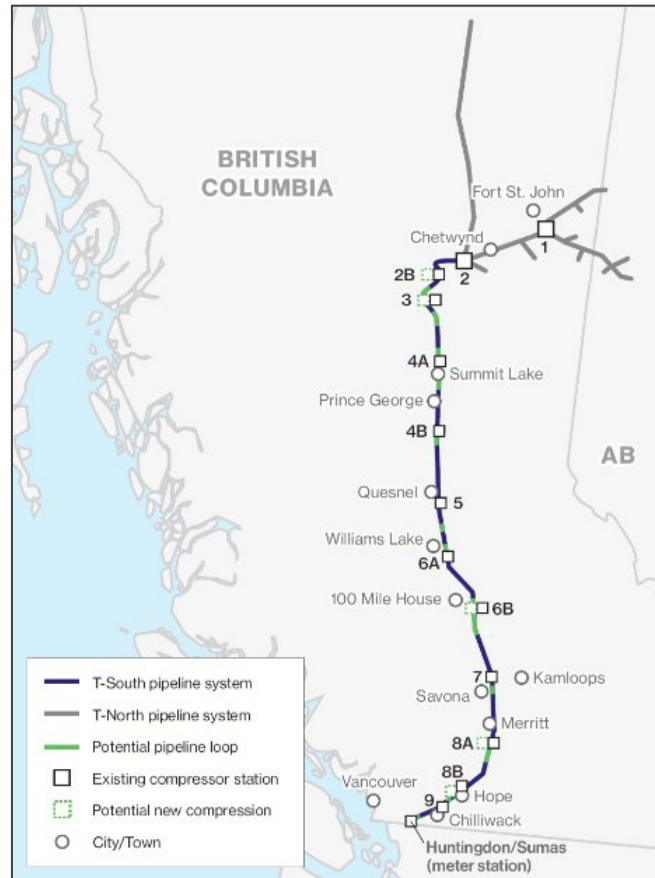
This gas is used to heat homes, businesses, hospitals and schools. It is also used as a fuel for electric power generation and is a staple in many industrial and manufacturing processes.

Following a successful open season in 2022 that resulted in requests for additional transportation capacity, Enbridge is proposing an expansion of the southern portion of the Westcoast pipeline, known as T-South.

The proposed Sunrise Expansion Program (project), currently includes the addition of pipeline looping and additional compression along T-South to provide approximately 300 million cubic feet per day (MMcf/d) of additional natural gas transportation capacity.

The targeted in-service date would be late 2028, if approved.

- **Type:** Natural gas pipeline expansion
- **Status:** Proposed
- **Capacity expansion:** 300 MMcf/d
- **Expected to transport:** Natural gas
- **In-service target date:** 2028
- **Ownership:** Enbridge Inc.
- **Operator:** Westcoast Energy Inc.



### **Three Rivers Interconnection Project**

The Three Rivers Interconnection Project will provide safe, reliable natural gas transmission for power generation in Illinois.

Alliance Pipeline L.P. (Alliance) is proposing to construct, install, own, operate, and maintain approximately 2.8-miles of 20-inch diameter natural gas pipeline, a new metering and regulating station, and other related auxiliary facilities and appurtenances.

The project will provide natural gas transportation services to Competitive Power Ventures' planned Three Rivers Energy Center in Grundy County, Illinois.

The proposed Three Rivers Interconnection Project will be capable of delivering approximately 210 million standard cubic feet per day of natural gas.

Alliance Pipeline L.P. is a joint venture of Enbridge and Pembina Pipeline Corporation.



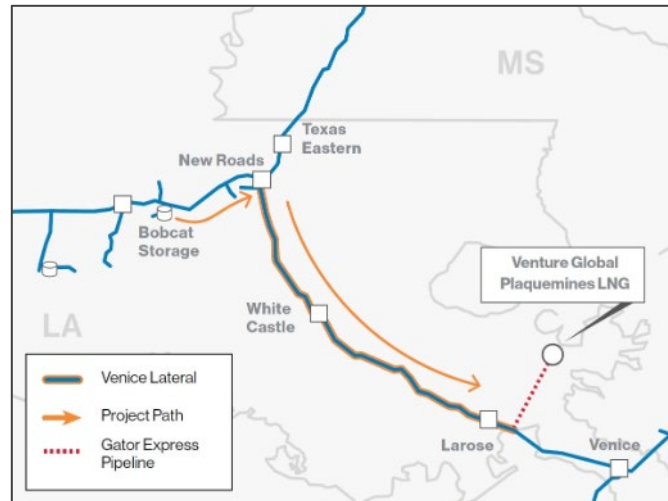
- Type: Natural gas pipeline
- Status: Proposed
- Peak day capacity: 210,000 MMcf/d
- Expected to transport: Natural gas
- In-service target date: Third quarter 2022
- Ownership: Enbridge (50%), Pembina Pipeline Corporation (50%)
- Operator: Alliance Pipeline L.P.

### Venice Extension Project

The Venice Extension Project efficiently expands Texas Eastern's existing infrastructure and transportation capacity to connect North American supply to growing Gulf Coast markets

Texas Eastern Transmission, LP (Texas Eastern) is proposing to expand its system through the construction, replacement, and modification of facilities in Louisiana. Once in-service, the Venice Extension Project will provide 1.26 billion cubic feet per day (Bcf/d) of firm natural gas transportation supply to the Venture Global Plaquemines LNG facility in Plaquemines Parish.

The proposed scope includes abandoning in-place a 2.2-mile-long existing segment to be replaced with a new 3-mile-long pipeline, and a new compressor station in Pointe Coupee Parish. Texas Eastern will also modify two existing compressor stations in Iberville and Lafourche Parishes by abandoning in-place the existing, inactive compressor unit and installing one new compressor at each of the existing facility sites



- Type: Natural gas pipeline
- Peak day capacity: 1.26 Bcf/d
- In-service target date: 2024
- Docket number: CP22-15-000
- Ownership: Enbridge Inc. (100%)

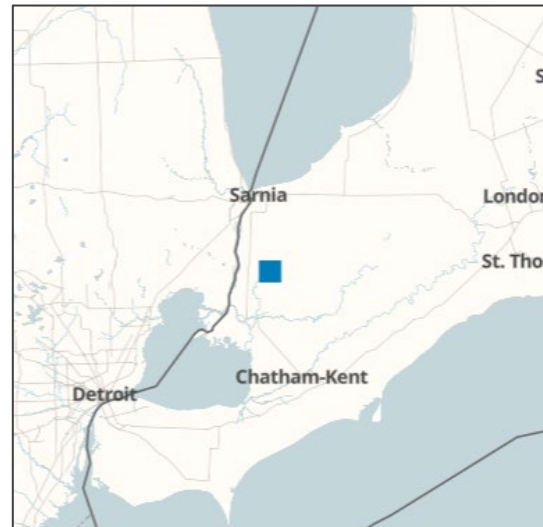
# Natural Gas Distribution

## Dawn Corunna Project

To maintain the safe and reliable operation of our natural gas system, and to continue meeting the natural gas needs of our customers, Enbridge Gas is replacing some of our older natural gas storage and transmission assets in the St. Clair Township, Ontario, area.

The proposed project includes decommissioning seven of the 11 natural gas compressors currently located at the Corunna Compressor Station in St. Clair Township, which are approaching the end of their lifecycles.

The project also includes the construction of a new 36-inch diameter steel pipeline between the Corunna Compressor Station and the Dawn Operations Centre, in the Township of Dawn-Euphemia.



This project has been approved by the Ontario Energy Board (OEB), and construction is expected to begin in 2023. Visit [the Enbridge Gas website](#) for more information.

## London Lines Replacement Project

Enbridge Gas is replacing a section of natural gas pipeline across Lambton and Middlesex Counties in Ontario in order to improve the integrity of the pipeline network and to increase system flexibility.

The London Lines Replacement Project (LLRP) includes the construction of approximately 82 kilometers (km) of a combination of 4 and 6 inches in diameter high pressure natural gas pipeline. This will replace the two current pipelines known collectively as the London Lines. The LLRP will also include the construction of 8.4 km of a secondary 6-inch pipeline which will reinforce the new pipeline from a source near the community of Strathroy.



This project has been approved by the Ontario Energy Board and construction began in 2021. Construction on the main pipeline was completed in 2022, however there are additional activities in the area that required completion by Enbridge Gas after construction was completed. The new line is now active, and we anticipate we will be able to finalize all remaining activities in 2023.

### Panhandle Regional Expansion Project

To increase capacity and serve additional demand for affordable and reliable energy, Enbridge Gas is proposing to increase the capacity of the existing Panhandle Transmission System, which serves residential, commercial, industrial, greenhouse, and power generation customers in Windsor, Essex County, and Chatham-Kent, Ontario.

The proposed project includes two components—the Panhandle Loop and the Leamington Interconnect.

#### Panhandle Loop

Construction of approximately 19 km of new pipeline, which loops—or parallels—the existing 20-inch Panhandle Pipeline. The new pipeline will be 36 inches in diameter and located adjacent to an existing pipeline corridor between Richardson Side Road in the Municipality of Lakeshore, and Enbridge Gas' existing Dover Transmission Station in the Municipality of Chatham-Kent.



#### Leamington Interconnect

Construction of approximately 12 km of new 16-inch pipeline, adjacent to or within existing road rights-of way, on public or private property. This will connect the existing Leamington North Lines to both the Kingsville East Line and the Leamington North Reinforcement Line, in the municipalities of Lakeshore and Leamington, and the Town of Kingsville.

If approved by the Ontario Energy Board (OEB), construction could begin in 2024.

Visit [the Enbridge Gas](https://www.enbridgegas.com) website for more information.



**Windsor Pipeline Replacement Project**

In Windsor, Essex County and Chatham-Kent, Ontario, there is a need to ensure our natural gas pipelines and infrastructure continue to deliver natural gas reliably. With that in mind, Enbridge Gas Inc. is replacing the Windsor Line natural gas pipeline. Our project involves replacing approximately 64 km of the existing Windsor Line, which is a combination of 8 inch and 10-inch diameter pipelines, with a new 6-inch diameter pipeline that will be constructed in the vicinity of the existing pipeline.

The project has been approved by the Ontario Energy Board; construction occurred over 2020 and 2021 and the project is in service. Project cleanup work is ongoing and expected to be complete in 2023.

[Learn more at the Enbridge Gas website.](#)



## Offshore Projects

### St. James Development Project

A brownfield joint-development opportunity to develop a deep-water crude and refined products terminal in Louisiana.

The St. James Development Project is a brownfield joint-development opportunity to develop a deep-water crude and refined products terminal which will serve as an independent, third-party logistics solution for customers in the area.

Enbridge will hold a 50% interest in this brownfield opportunity, whose site is strategically located within the St. James petroleum crude hub in Louisiana and has access to ample marine waterfront and pipeline connectivity.

Enbridge acquired the project alongside a number of Gulf Coast assets from Moda Midstream, LLC in a [transaction announced Sept. 7, 2021](#).



Facility and services:

- Existing waterfront with a ship and a barge dock
- Expansion capability for one additional ship and barge dock
- Up to 8 MMBBIs of permitted tank capacity
- Additional land available for storage expansion
- In-tank blending



# Wind Energy

## Calvados Offshore Wind Project

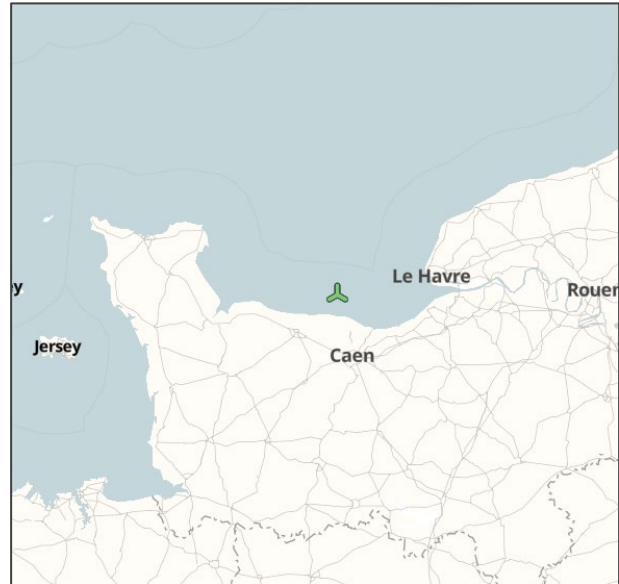
Enbridge and its partners, EDF Renewables and wpd, are developing the Calvados Offshore Wind Project off the Bessin, France coastline.

Enbridge and its partners, EDF Renewables and wpd, are developing the Calvados Offshore Wind Project off the coast of Bessin, France

The 448-megawatt (MW) wind farm will feature 64 7-MW Siemens Gamesa Renewable Energy (SGRE) turbines to be manufactured in France. The turbines will come from the same Quai, Joannes Couvert plant where SGRE will make turbines for our Fécamp offshore wind project.

Turbines will be located 10 kilometres off the Bessin coast, and deployed in an area of about 45 square km.

Enbridge has a 21.7% ownership stake in the Calvados Offshore Wind Project, which is expected to enter service in 2025.



[Visit the project website for more information.](#)

- **Type:** Wind energy project
- **Status:** Under construction
- **Location:** Courseulles sur Mer, about 10 km off Bessin's coast
- **Expected in-service date:** 2025
- **Expected capacity:** 448 MW
- **Expected number of turbines:** 64
- **Expected equivalent homes served:** 300,000

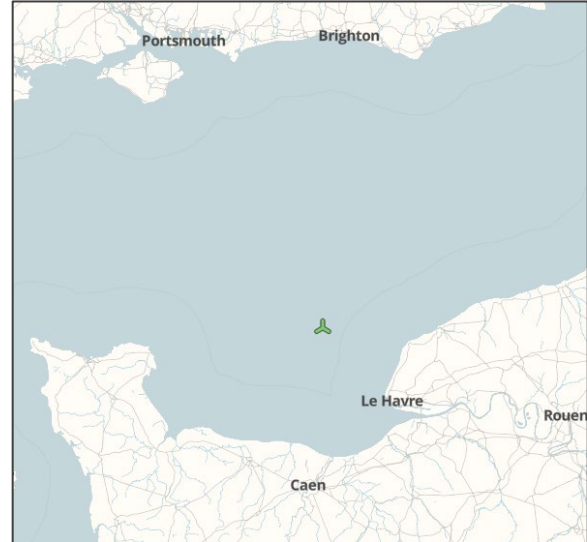
### Fécamp Offshore Wind

Enbridge and its partner EDF Renouvelables are developing the Fécamp Offshore Wind Project off France's northwest coast, not far from Dieppe.

The 497-megawatt (MW) wind project will feature 71 Siemens Gamesa Renewable Energy 7 MW turbines to be manufactured in France. The project will generate electricity equivalent to the power needs of more than 416,000 homes.

Turbines will be located between 13 and 22 kilometres off Fécamp's coast, at depths around 30 metres, and deployed in an area of about 60 square km.

Enbridge has a 35% ownership stake in the Fécamp Offshore Wind Project, which is expected to enter operation in Q1 2024.



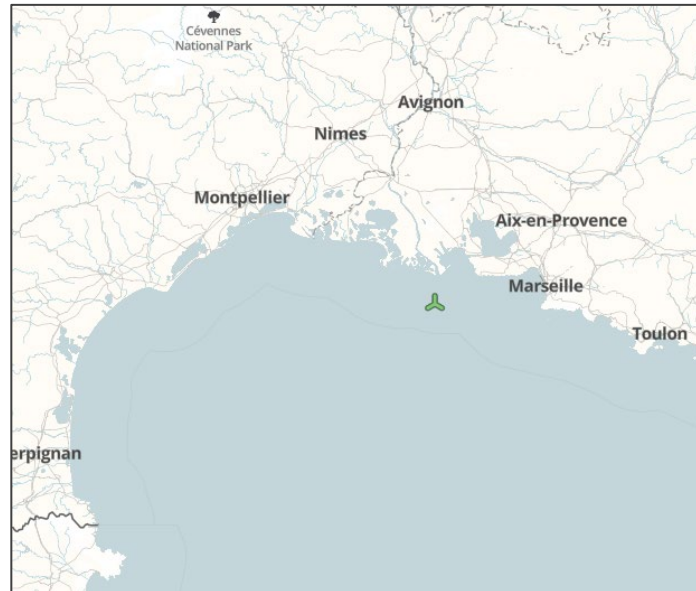
[Visit the project website for more information.](#)

- **Type:** Wind energy project
- **Status:** Under Construction
- **Location:** English Channel, about 13 to 22 km off France's northwest coast, just south of Dieppe
- **Expected in-service date:** Q1 2024
- **Expected capacity:** 497 MW
- **Expected number of turbines:** 71
- **Expected equivalent homes served:** 416,000

### Provence Grand Large Floating Offshore Wind Project

Enbridge and its partners, EDF Renewables and CPPIB, are developing the Provence Grand Large Floating Offshore Wind Project off the coast of Port-Saint-Louis-du-Rhône, France

The 24-megawatt (MW) wind farm will feature three 8 MW floating wind turbines to be installed 17 kilometres off the coast in the Mediterranean Sea. Floating foundation wind turbines are tethered to, instead of driven into, the seabed which enables deployment of offshore wind in deeper waters than traditional foundations.



- **Type:** Wind energy project
- **Status:** In pre-construction
- **Location:** About 17 km off Port-Saint-Louis-du-Rhône's coast
- **Expected in-service date:** 2023
- **Expected capacity:** 24 MW
- **Expected number of turbines:** 3
- **Expected equivalent homes served:** More than 20,000

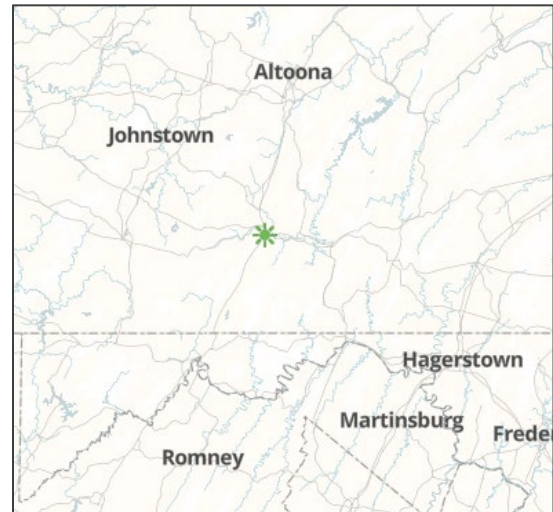
## Solar Energy

### Bedford Solar

Bedford Solar is a 6.8-megawatt (MW) solar energy project in Bedford, Pennsylvania.

Once completed, the project will supply a portion of the power needed by Enbridge's Bedford gas compressor station.

- Nature of asset: Solar energy project
- Status: Pre-construction
- Location: Bedford, PA
- Capacity: 6.8 megawatts (MW)
- Expected in-service date: Q1 2024
- Equivalent homes served: 860

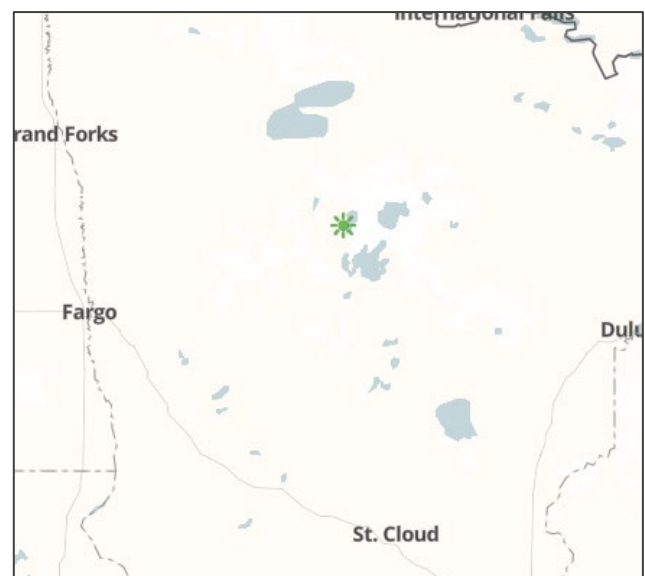


### Cass Lake Solar

Cass Lake Solar is an 8.8-megawatt (MW) solar energy project in Cass Lake, Minnesota.

Once completed, the project will supply a portion of the power needed by Enbridge's liquids pipelines system.

- Nature of asset: Solar energy project
- Status: Pre-construction
- Location: Cass Lake, MN
- Capacity: 8.8 megawatts (MW)
- Expected in-service date: Q4 2023
- Equivalent homes served: 2,285



**Deer River Solar**

Deer River Solar is a 15-megawatt (MW) solar energy project in Deer River, Minnesota.

Once completed, the project will supply a portion of the power needed by Enbridge's liquids pipelines system.

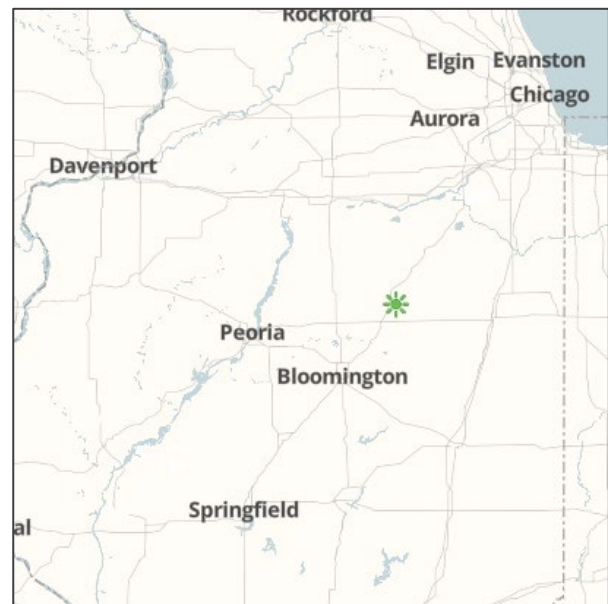
- Nature of asset: Solar energy project
- Status: Pre-construction
- Location: Deer River, MN
- Capacity: 15 megawatts (MW)
- Expected in-service date: Q4 2023
- Equivalent homes served: 4,162

**Flanagan Solar**

Flanagan Solar is a 10-megawatt (MW) solar energy project in Pontiac, Illinois.

Once completed, the project will supply a portion of the power needed by Enbridge's Flanagan South liquid pipelines system.

- Nature of asset: Solar energy project
- Status: Under construction
- Location: Pontiac, IL
- Capacity: 10 megawatts (MW)
- Expected in-service date: Q2 2023
- Equivalent homes served: 2,131





### Floodwood Solar

Floodwood Solar is an 11-megawatt (MW) solar energy project in Floodwood, Minnesota.

Once completed, the project will supply a portion of the power needed by Enbridge's liquids pipelines system.

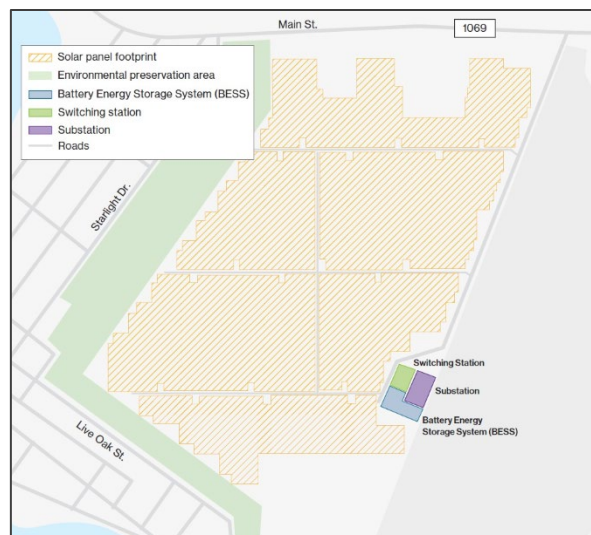
- Nature of asset: Solar energy project
- Status: Pre-construction
- Location: Floodwood, MN
- Capacity: 11 megawatts (MW)
- Expected in-service date: Q4 2023
- Equivalent homes served: 2,962



### Ingleside Solar Plus Battery Energy Storage Project

The Ingleside Solar Plus Battery Energy Storage Project is a proposed renewable energy facility located at Enbridge Ingleside Energy Center (EIEC). This proposed project is to develop a 60 MW photovoltaic solar plus battery energy storage facility that will deliver renewable energy into the Texas grid, with the potential to power other clean energy projects in the future.

Enbridge is proposing to develop a 60 MW solar facility plus battery storage facility at EIEC located in Ingleside, Texas, near Corpus Christi. The project will require environmental review and permitting.



Construction will begin once all permits have been received and is tentatively planned for 2024.

- **Type:** 60 MW solar farm plus battery energy storage project
- **Status:** Early development
- **Capacity:** 130 GWh/year
- **In-service target date:** 2024
- **Ownership:** Enbridge Inc. (100%)

**Tompkinsville Solar**

Tompkinsville Solar is an 9.6-megawatt (MW) solar energy project in Tompkinsville, Kentucky.

Once completed, the project will supply a portion of the power needed by Enbridge's Tompkinsville gas compressor station.

- Nature of asset: Solar energy project
- Status: Pre-construction
- Location: Tompkinsville, KY
- Capacity: 9.6 megawatts (MW)
- Expected in-service date: Q1 2024
- Equivalent homes served: 2,293



**Wheelersburg Solar**

Wheelersburg Solar is a 5.3-megawatt (MW) solar energy project in Wheelersburg, Ohio.

Once completed, the project will supply a portion of the power needed by Enbridge's Wheelersburg gas compressor station.

- Nature of asset: Solar energy project
- Status: Pre-construction
- Location: Wheelersburg, OH
- Capacity: 5.3 megawatts (MW)
- Expected in-service date: Q1 2024
- Equivalent homes served: 815





# LNG Export Facilities

## Woodfibre LNG

Enbridge Inc. and Pacific Energy Corporation Limited [announced in July 2022 an agreement](#) to jointly invest in the construction and operation of the Woodfibre LNG project.

Woodfibre LNG is a 2.1 million-tonne-per-year liquefied natural gas (LNG) export facility with 250,000 m3 of floating storage capacity being built near Squamish, BC. The project is underpinned by two long-term offtake agreements with BP Gas Marketing Limited for 15 years representing 70% of the capacity, with additional commitments in development for up to 90%.

Woodfibre LNG announced in April that it had issued Notice to Proceed to global engineering and construction company McDermott International and that the project is expected to be in service in 2027.

Under the partnership agreement, Enbridge will invest in a 30% ownership stake in the US\$5.1-billion Woodfibre LNG project, with Pacific Energy retaining the remaining 70% stake in the facility.

[Visit the Woodfibre LNG project website.](#)

### Project overview:

- **Type:** Liquefied Natural Gas (LNG) export facility
- **Status:** Under construction
- **Location:** Squamish, BC
- **Expected in-service date:** 2027
- **Ownership:** Pacific Energy 70%, Enbridge Inc. 30%
- **Project website:** <https://woodfibrelng.ca/>

