

Iroquois Gas Transmission System ExC Project

Q&A

1. What is the application that Iroquois has submitted to FERC?

Iroquois Gas Transmission System, L.P. (Iroquois) filed an application with the Federal Energy Regulatory Commission (FERC) for authorization to construct, own, operate, and maintain new natural gas compression and cooling facilities to be located at the sites of four existing Iroquois compressor stations, in Athens, New York; Dover, New York; Brookfield, Connecticut; and Milford, Connecticut. The purpose of these new facilities is to support Iroquois' Enhancement by Compression Project (ExC).

2. What is the ExC Project?

The ExC Project was developed as a tailored response to requests for additional firm deliveries to meet increased demand for natural gas service on local natural gas distribution companies' (LDC) systems in New York. Iroquois determined that the most advantageous method of adding such incremental capacity from an environmental and efficiency standpoint is through the addition of compression and cooling equipment at three existing compressor stations and the installation of a cooling facility at a fourth existing compressor station. As such, this is a "compression-only" project, requiring no expansion of Iroquois' pipeline footprint, no looping (another line parallel to the existing pipeline over the whole length or any part of it) of the existing Iroquois pipeline system, and no need to acquire additional pipeline right of way. Specifically, Iroquois proposes to construct the following new facilities:

- Athens, NY – Iroquois will construct and integrate with its existing Athens compressor station facilities one new approximately 12,000 horsepower (HP) turbine (Unit A2) with associated cooling, filter separators, and other typical facilities connecting to the Iroquois 24-inch mainline in the Town of Athens, Greene County, New York;
- Dover, NY – Iroquois will construct and integrate with its existing Dover compressor station facilities one new approximately 12,000 HP turbine (Unit A2) with associated cooling, filter separators and other typical facilities connecting to the Iroquois 24-inch mainline in the Town of Dover, Dutchess County, New York;
- Brookfield, CT – Iroquois will construct a control/office building and two new turbines with approximately 12,000 HP each (Unit B1 & Unit B2) with associated cooling, filter separators and other typical facilities connecting to Iroquois' 24-inch mainline at Brookfield, to be installed downstream and independent of Iroquois' existing transfer compressors Unit A1 (Solar T-60) and Unit A2 (Solar T-70) located in the Town of Brookfield, Fairfield County, Connecticut; additionally, incremental cooling equipment will be added to Plant A; and
- Milford, CT – Iroquois will install new gas cooling equipment to the existing Milford Plant A units and associated piping to allow for compressed discharge gas to be cooled; no gas cooling facilities currently exist at the Milford compressor station, which is located in the City of Milford, New Haven County, Connecticut.

3. Who is the ExC Project designed to serve?

The ExC Project has been developed to provide a total of 125,000 dekatherms per day (Dth/d) of incremental firm transportation service to two existing and unaffiliated New York LDC customers of Iroquois, Consolidated Edison Company of New York, Inc. (Con Edison) and KeySpan Gas East Corporation d/b/a National Grid (National Grid) (together, ExC Shippers or Shippers).

4. Why is this additional gas needed?

Between 2008 and 2018, New York State’s residential gas consumption increased by 20%. The Project will meet increased demand on the two LDC Shippers’ systems that is primarily due to:

- (1) population and market growth in Con Edison’s and National Grid’s service territories,
- (2) the affordable cost of delivered natural gas compared to other heating fuels, and
- (3) customer demand associated with meeting the City of New York’s mandated phase-out of No. 4 and No. 6 fuel oils used in fuel boilers.

Given the mandated phase-out of fuel oils, natural gas service provides an affordable pathway for customers to achieve a conversion to a cleaner environment in their neighborhoods.

Additionally, the Project will provide the two ExC Shippers with diverse gas supply sourcing options, which will benefit them both economically and operationally by enhancing gas supply security.

5. What other benefits will the ExC Project deliver?

The ExC Project will provide a flexible, reliable, and affordable source of energy that will meet immediate needs while supporting the continued development of intermittent renewable power generation resources, thereby facilitating the region’s energy and environmental goals. Additionally, the Project will offer ancillary benefits including:

- **Stable prices and supply**

The Project facilities will provide important supply diversity benefits to the ExC Shippers, as Iroquois’ system provides access to natural gas supplies in geographically dispersed regions of the United States and Canada. Access to these diverse supply sources will help avoid geographic production and transportation constraints or disruptions, thereby increasing supply reliability and enhancing regional natural gas price stability.

- **Minimizing the use of fuel oil in electric generation**

The Project potentially provides benefits to the electric generation industry and its customers by providing additional deliverability of natural gas into New York City and the region, thus increasing the availability of natural gas on non-peak days and potentially reducing the amount of fuel oil burned by electric generators, which will benefit the environment.

- **Strengthened reliability and resilience**

ExC promotes system reliability and resilience goals, as it reinforces Iroquois’ current system facilities with new state-of-the-art compressors (including oxidation catalyst equipment and vent recovery systems to reduce emissions) that will support the system’s existing facilities and benefit all Iroquois customers.

- **Local Economic Benefits**

The ExC Project is anticipated to provide additional tax revenue of \$0.5M to the Town of Athens and \$1.2M to the Athens school district; \$0.5M to the Town of Dover and \$1.2M to the Dover school district; \$1.8M to the Town of Brookfield; and \$0.3M to the City of Milford. In addition, Iroquois plans to make available location-specific Project grants should the ExC Project be approved. Iroquois will work with local officials in determining eligible projects.

Construction activities will also have a net positive impact on local and regional businesses through the purchase of construction material and equipment fuel purchases; and as workers spend their income on temporary housing, goods and services.

6. What steps are being taken to mitigate the project's impacts?

Iroquois' proposed facilities will not affect any cultural resources, public recreational areas, important wildlife habitat, or surface water resources. Minimal tree clearing (only at Brookfield, CT) will take place as part of this Project, and the remaining trees and foliage will provide natural screening to minimize potential visual and/or noise impacts of the Project.

The Project has been developed to minimize community and environmental impacts. Each new facility location within the existing footprint was chosen to avoid impacts to wetlands. Iroquois has designed the ExC Project compressor facilities to include enhanced noise reduction as well as emissions reduction components. Iroquois is proposing to utilize the same types of visual screening and design characteristics that it has implemented successfully at its existing compressor stations. Additional mitigation measures include:

- **Minimal community and environmental impacts**
Iroquois has designed the ExC Project to avoid constructing new facilities in areas of environmental sensitivity and has included in its proposal additional features to mitigate potential adverse environmental impacts either during the construction phase or during operation.
- **Noise mitigation in Brookfield, CT**
The Project facilities to be constructed at the Brookfield, CT compressor station include certain modifications to the Units A1 and A2 compressor facilities, the purpose of which is to address noise levels to maintain compliance with FERC standards for the entire Brookfield Compressor Station. Such noise compliance facility modifications will include replacement of existing turbine stacks on Units A1 and A2 and other measures.
- **Carbon monoxide reduction**
Iroquois plans to install oxidation catalysts (OC) in the exhaust system of each newly proposed ExC Project compressor, as well as the two existing gas compressors at Brookfield. OC media react with the exhaust gas produced by the gas turbines to reduce carbon monoxide up to 90% or more, as well as reductions in volatile organic compounds including formaldehyde and other hazardous area pollutants.
- **Reduction of gas emissions**
Iroquois plans to install vent recovery systems (VRS) at each of the ExC Project compressor stations. This equipment will be designed and installed to capture the dry seal gas and reinject the gas downstream of the compressor station isolation valves. In addition, the VRS will also capture gas vented during normal controlled unit compressor blowdowns. This will reduce the aggregate gas emissions from all of the ExC Project compressor stations, collectively, by an estimated 70% from historical levels.

- **No additional land to be used for project facilities**

The Project has been designed so that new facilities will be located on land already owned by Iroquois and on which its existing compressor facilities are located. No additional permanent land use rights will be obtained and Iroquois will not need to condemn any property in order to construct and operate the new facilities. Accordingly, there will be no adverse economic impacts on landowners.

7. How will the Iroquois pipeline handle the increased pressure?

The Iroquois Pipeline's Maximum Allowable Operating Pressure (MAOP) is 1440 psi. While the operating pressure will change as a result of the Project's added capacity, the MAOP will not. As the natural gas flows through the pipeline, the pressure decreases. The compressor stations safely pressurize the gas back up to ensure the gas continues to flow efficiently and reliably.

8. What is the role of the ExC Project in the context of public policy objectives aimed at reducing the use of fossil fuels?

Iroquois and its customers provide natural gas services in the northeast United States, a region that is at the forefront in advocating for reduced dependence on fossil fuels, development of renewable energy resources, and a shift from higher to lower emitting energy resources. The ExC Project is designed to facilitate a rational and orderly transition to a renewable energy future, complementing and supporting the region's policy choices while at the same time addressing the need for incremental natural gas transportation capacity into the region. As a result, the ExC Project is compatible with New York State's recently enacted Climate Leadership and Community Protection Act, which seeks to achieve net zero greenhouse gas (GHG) emissions by 2050.

Construction of the ExC Project is consistent with the aggressive emissions reduction goals established by this new legislation by providing an affordable pathway for customers seeking to convert from more carbon-intensive liquid fossil fuels to lower carbon natural gas. The ExC project is also consistent with general support for the mitigation of environmental impacts because it supplements existing natural gas capacity by constructing the project facilities at existing facilities. When combined with New York State's continued efforts to advance renewables and alternative technologies, the project provides an environmentally superior alternative to the continued use of heating oil, and will provide the ExC Shippers' customers with clean, affordable heating and cooking solutions. Additionally, the project's industry-leading methane reduction measures are directly aligned with clean energy goals.

9. What is the estimated cost of the ExC Project?

The total cost of the proposed project facilities is estimated to be approximately \$272 million.

10. What are the sources of the gas Iroquois transports on its system?

Iroquois' pipeline system has substantial supply interconnections from geographically diverse supply sources.

- TC Energy at the US/Canadian border provides Iroquois' customers with access to gas supplies from across North America. While TC Energy's traditional supply area has been the Western Canadian Sedimentary Basin, in recent years, significant new pipeline interconnections have given that system access to gas supply from the vast storage fields in Dawn, Ontario and

northern Michigan, as well as supply basins in the Rockies, Gulf of Mexico, Midcontinent, and Appalachia.

- Iroquois also has supply interconnections with Algonquin in Brookfield, Connecticut and DETI at Canajoharie, in upstate New York, that provide access to abundant domestically produced natural gas supplies from nearby production areas in Appalachia.

11. When do you expect this additional capacity to be available to the LDCs?

The LDCs have requested a service commencement date of November 1, 2023.

12. What is the duration of the contract?

The contract’s term is 20 years to meet existing and forecasted needs for natural gas service in the LDC’s respective service areas.

13. Will any customers other than the LDCs under contract have access to the gas?

The ExC Project is 100% subscribed by LDCs Con Edison and National Grid, each of which have taken a 50% share of the project’s incremental firm transportation service for terms of 20 years. The LDCs are not affiliated with Iroquois and have entered into binding commitments under their PAs and service and negotiated rate agreements which contain significant financial and project-support obligations that further demonstrate their commitment to and need for the new service that will be created by the ExC Project.

14. What cost impacts will ExC have on current Iroquois customers?

Iroquois’ existing customers will not experience any negative rate, cost or operational impacts associated with the ExC Project. Rather, Iroquois’ customers will benefit from the ExC Project. First, the project’s new facility costs will be borne exclusively by ExC Project customers, as Iroquois is proposing an incremental transportation rate and incremental Fuel and Losses Retention percentage for ExC Project service, thereby ensuring no cost-shifting to Iroquois’ existing system customers. Second, the ExC Project will absorb currently unsubscribed existing capacity in Iroquois’ Zone 1, which will reduce the risk of future stranded system costs that could adversely affect existing shippers.

15. What is the estimated calendar for the ExC Project?

Date	Action
Q4 2019	Project kickoff which included initial briefings (with government and agency stakeholders as well as local landowners) and community meetings.
Dec 2019/Jan 2020	Open houses held in Athens and Dover, NY; Brookfield and Milford, CT.
Q1 2020	Submission of all permit applications to FERC.
Q1 2020	Submission of all permit applications to state agencies.
Q1 2020 – Q3 2021	Federal and state agencies review permit applications and public comments.
Q4 2020	FERC issues decision on Iroquois proposal.
Q1 2023	Launch of construction.
September 2023	Commissioning completed.
November 2023	Facilities placed in-service.

16. How is Iroquois communicating with stakeholders?

Iroquois began meeting with key stakeholders across the project's facility locations (including federal, state, and local elected officials as well as senior governmental administrators) in April 2019. Iroquois began contacting local communities in November 2019. Iroquois has also developed a project-specific informational website (www.iroquois.com/operations/projects/exc-project/), which was launched in November 2019. Additionally, Iroquois has held four open houses, one in each of the communities in which project facilities will be constructed.

Iroquois has continued, and will continue, to engage with federal, state and local regulatory agencies, elected and appointed governmental officials, community representatives, neighboring landowners, and other stakeholders throughout the ExC Project development process to solicit input, receive guidance, and address questions and concerns regarding the project.

Iroquois has also partnered with the ExC Project's Shippers to engage with stakeholders and provide a comprehensive and coordinated presentation of the project's purpose, scope, timing, and physical characteristics.

Iroquois will continue to provide updates through mailings, newspaper ads, and via the project website and hotline.

17. Will there be any additional public meetings or opportunities to comment on the Project?

Comments may continue to be submitted to the FERC via their e-filing process at www.ferc.gov. FERC may choose to hold scoping sessions in the project areas to solicit comments. There will also be opportunities to provide comment to the NYS DEC and the CT DEEP regarding Iroquois' air permit applications.

General Q&A

18. What is a compressor station?

A critical component of a natural gas transmission system, compressor stations are used to safely pressurize the natural gas in the pipeline which helps the gas flow efficiently for safe and reliable service. As gas loses pressure as it moves through pipelines, companies typically install compressor stations every 40 to 100 miles to maintain the system's pressure. Compressor stations' design and operations are regulated by the Federal Energy Regulatory Commission FERC and the U.S. Department of Transportation.

19. What steps does Iroquois take to ensure the safety of its facilities?

The safety of the communities we serve is the top priority for Iroquois and we are proud of our longstanding, excellent safety record. From our daily operations and ongoing monitoring program, to the construction of our facilities, safety is of fundamental importance to Iroquois.

- **Security**
Iroquois maintains a comprehensive security plan to address potential threats to its facilities. This plan covers critical areas such as cyber-security, access control, and coordination with federal and state homeland security agencies. In addition, Iroquois facilities are equipped with detection and monitoring devices including security cameras for on-site viewing, as well as monitoring from our Gas Control Center.
- **Fail-Safe Compressor Stations**
Iroquois' compressor stations feature redundant fail-safe station control and monitoring capabilities. Sophisticated automatic control, detection, emergency shutdown, and fire protection systems are designed to operate around the clock whether the station is attended or unattended.
- **In-House Gas Control Center**
To ensure the safety of the public and our system, Iroquois' in-house Gas Control Center is staffed 24/7/365 days a year by a team of professional staff. Our Supervisory Control and Data Acquisition (SCADA) system provides data collection, monitoring, and control of the compressor and meter stations. If needed, Gas Control can operate the system's mainline block valves remotely.
- **Pipeline**
Our steel pipeline is made to exacting specifications for durability and thickness resulting in an extremely resilient pipe that is difficult to penetrate and highly tolerant of many types of damage. A high-integrity, fusion-bonded epoxy coating is applied to the steel pipe to prevent corrosion.
- **Ongoing Safety and Education**
The importance Iroquois places on safety is reflected in our operations and monitoring, as well as our programs to educate emergency responders, government officials, and the general public about natural gas safety.