



Forecast of Near-term Natural Gas Infrastructure Projects

Prepared for:

ISO-New England
October 3, 2016

Kevin R. Petak
Vice President
703-218-2753
Kevin.Petak@icfi.com

Frank Brock
Senior Energy Market Specialist
703-218-2741
Frank.Brock@icfi.com

ICF Disclaimer



Warranties and Representations. ICF endeavors to provide information and projections consistent with standard practices in a professional manner. ICF MAKES NO WARRANTIES, HOWEVER, EXPRESS OR IMPLIED (INCLUDING WITHOUT LIMITATION ANY WARRANTIES OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE), AS TO THIS PRESENTATION. Specifically, but without limitation, ICF makes no warranty or guarantee regarding the accuracy of any forecasts, estimates, or analyses, or that such work products will be accepted by any legal or regulatory body.

Waivers. Those viewing this presentation hereby waive any claim at any time, whether now or in the future, against ICF, its officers, directors, employees or agents arising out of or in connection with this presentation. In no event whatsoever shall ICF, its officers, directors, employees, or agents be liable to those viewing this presentation.



- Introduction
- Summary of Infrastructure Changes
 - Baseline Natural Gas Infrastructure in New England
 - Proposed Pipeline Expansions into New England
 - Projected New England Gas Supply Capabilities
 - Proposed Pipeline Expansions into or within New York
- Appendix A: Other Proposed Pipeline Projects in the Northeast
 - Proposed Pipeline Expansions within Eastern Canada
 - Proposed Pipeline Expansions in the Greater Northeast
- Appendix B: Details on Proposed Pipeline Expansion

Introduction



- Between 2011 and 2014, ISO-New England (ISO-NE) contracted ICF for a series of studies examining New England’s natural gas infrastructure and projecting gas demand. In September 2016, ISO-NE contracted with ICF to update two elements of the prior analysis:
 - 1) Compile the most recent demand forecast from all of New England’s natural gas utilities/distribution companies (i.e., gas LDCs) and using that information, develop a 15-year forecast of aggregate natural gas LDC demand for use by ISO-NE in upcoming internal analyses.
 - 2) Develop a near-term forecast of probable natural gas sector infrastructure expansion projects for the greater Northeastern U.S. and Eastern Canadian region.
- In this presentation, we provide the results for the second task, a forecast of natural gas infrastructure expansions. This infrastructure forecast includes:
 - A baseline assessment of New England’s existing gas infrastructure as of August 1, 2016.
 - An assessment of publically announce infrastructure expansion projects, indicating which projects (in ICF’s view) are likely to proceed before December 31, 2020.
- For this analysis, ICF has reviewed informational postings by both federal and state agencies, articles in trade press, and energy company web sites for proposals for either expansion of existing facilities or new natural gas infrastructure, including: pipelines, compressor stations, compressed natural gas storage, LNG import/export facilities, and peak shaving storage.
- The analysis focuses on infrastructure projects that directly impact gas supply availability in New England, but also includes ICF’s assessment of infrastructure projects proposed for the greater Northeastern U.S. (including Pennsylvania, New Jersey, New York) and Eastern Canada (Ontario, Quebec, and the Maritime Provinces).

Introduction (continued)



- It is becoming increasingly difficult to build new gas pipelines, particularly in New England and New York.
- Pipeline expansion projects are facing challenges on a number of fronts:
 - The EPA and environmental groups are challenging FERC’s environmental impact assessments of various projects.
 - Environmental groups opposed to increased natural gas production see blocking pipeline projects as another way of achieving that goal.
 - State agencies may delay or block projects by denying necessary permits.
 - Land owners may oppose projects for fear of adverse impacts to their property’s value.
 - Competing commercial interests may challenge new projects to protect the profitability of their existing assets.
 - Low gas prices have reduced producer revenues, meaning they are less likely to enter into long-term transportation contracts to support new (supply-push) projects.
 - In competitive ISO/RTO markets, gas-fired generators still lack financial incentives to contract for firm pipeline capacity.

Summary:

Baseline Natural Gas Infrastructure in New England



- Based on ICF's analysis of each pipeline's index of customer (IOC) data, firmly contracted pipeline into New England on existing pipelines currently totals 4.04 Bcf/d:
 - Algonquin Gas Transmission (**AGT**) – 1.44 Bcf/d
 - Iroquois Gas Transmission (**IGT**) – 0.26 Bcf/d
 - Tennessee Gas Pipeline (**TGP**) – 1.32 Bcf/d
 - Portland Natural Gas Transmission (**PNGTS**) – 0.19 Bcf/d
 - 0.19 Bcf/d represents current firmly contracted capacity at the Canadian border, not the physical capability of the pipeline.
 - Maritimes and Northeast Pipeline (**M&N**) – 0.83 Bcf/d
 - M&N relies on supplies from Eastern Canada offshore production (Sable Island and Deep Panuke) and sendout from the **Canaport LNG** terminal in New Brunswick.

Summary:

Baseline Natural Gas Infrastructure in New England (continued)



- There are three LNG terminals that direct serve New England:
 - Distrigas **Everett LNG** has two storage tanks with a combined capacity of 3.4 Bcf, has a nominal sendout capacity of 0.70 Bcf/d, and has interconnections to AGT, TGP, Boston Gas, and a direct connection to Mystic Generating Station units 8 and 9. Everett also supplies LNG to satellite peak shaving facilities throughout New England.
 - Excelerate **Northeast Gateway LNG** has a nominal sendout capacity of 0.60 Bcf/d, and is connected to AGT. Because it is an offshore buoy system, Northeast Gateway has no onsite LNG storage and can only deliver gas supplies when an LNG tanker is docked at one of its two offshore buoys.
 - GDF Suez **Neptune LNG** is currently inactive. At GDF Suez’s request, the Neptune LNG terminal’s deep water port license was suspended in 2013.
- New England LDC operate a total of 45 LNG and 15 propane-air **peak shaving facilities**. These peak shaving facilities are used by the LDCs to maintain system reliability and help meet firm customer demand during the 10 to 15 peak demand days of winter. The peak shaving facilities have a total send-out capability of 1.46 Bcf/d and a total storage capacity of 16 Bcf.
 - 40 of the LNG peak shaving facilities receive their gas supplies via trucked shipments from Everett; the other 5 have on-site liquefaction to convert pipeline gas to LNG during off-peak periods.

Summary:

Proposed Pipeline Capacity into New England



- Four expansion projects are expected to add a total of 0.65 Bcf/d by the end of 2017:
 - **Algonquin Incremental Market (AIM)** – 0.34 Bcf/d by Nov-2016
 - **Tennessee Connecticut** – 0.07 Bcf/d by Nov-2017 (schedule for 2016, but assuming delayed by 1 year)
 - **Atlantic Bridge** – 0.13 Bcf/d by Nov-2017
 - **Continent to Coast (C2C)** – 0.11 Bcf/d by Nov-2017
 - While PNGTS already flows up to 0.30 Bcf/d on a non-firm basis, the C2C project adds firm capacity commitments upstream of Pittsburg, NH (on TCPL and TQM) that will provide firm supplies into PNGTS at the border.
- Kinder Morgan cancelled its **Northeast Energy Direct (NED)** project in April 2016, citing a lack of sufficient shipper interest.
- Project sponsors have said they are moving forward with the **Access Northeast** project, but the recent Massachusetts Supreme Court ruling effectively blocked 45% of the proposed shipper contracts. ICF ranks the project “unlikely” as current proposed.

Summary:

Proposed Pipeline Expansions into New England



Project Name	Company	Route	Planned In-Service Date	Capacity (MMcf/d)	Status	ICF's Handicapping
AIM Project	Spectra	New Jersey to Massachusetts	Nov-2016	342	Under Construction	Likely Online by Nov-2016
Connecticut Expansion	Tennessee Gas	Wright, NY (Albany County) to Hartford County, CT	Nov-2016	72	Under Construction	Delayed, but Likely Online by Nov-2017
Atlantic Bridge	Algonquin & M&N	New Jersey to New England and Maritimes Canada	Nov-2017	133	FERC Filed	Likely Online by Nov-2017
Continent to Coast (C2C)	PNGTS	Canada markets via Pittsburg, NH, to the Maritimes and Northeast Pipeline at Westbrook, ME	Nov-2017	110*	Announced	Likely New contracts active 2017/18
Access Northeast	Algonquin & M&N	Into New England	Nov-2018	500 pipeline 400 Peak shaving	FERC Pre-Filed	Unlikely to come online by 2020
Northeast Energy Direct	Tennessee Gas	Wright, NY to Dracut, MA and from the existing Line 300 in Pennsylvania to Wright, NY	Nov-2018	1,300	Cancelled	Cancelled

* The C2C capacity offering will increase firm contracts on PNGTS from 190 MMcf/d to approximately 300 MMcf/d; however, historically PNGTS already flows at up to 300 MMcf/d on a non-firm basis.

Summary:

Projected New England Gas Supply Capabilities



- Including the planned expansions, total firmly contracted pipeline capacity into New England is expected to reach 4.69 Bcf/d by the end of 2017:

Pipeline System	Existing Capacity	Expansions	Total
Algonquin Gas Transmission (AGT)	1.44	AIM: 0.34 Atlantic Bridge: 0.13	1.91
Iroquois Gas Transmission (IGT)	0.26		0.26
Tennessee Gas Pipeline (TGP)	1.32	Connecticut: 0.07	1.39
Portland Natural Gas Transmission (PNGTS)	0.19	C2C: 0.11	0.30
Maritimes and Northeast Pipeline (M&N)	0.83		0.83
Total In-Bound Contracted Capacity	4.04	0.65	4.69

- While firmly contracted capacity on M&N is expected to remain at 0.83 Bcf/d, the availability of upstream gas supplies remains uncertain. During the winter of 2015/16, flows into the U.S. averages 150 MMcf/d and reach a maximum of 777 MMcf/d on Feb 15 2016.
 - Sable Island Offshore Platform (SEOP)** production has been declining, averaging 140 MMcf/d over the past 12 months; ExxonMobil has announce it is planning to decommission the platform, but it has not set a firm date for the closure.
 - In 2015, Encana reduced its reserve estimate for the **Deep Panuke** offshore fields, due to higher than expected water incursion into the reservoir. Encana has shifted Deep Panuke to a seasonal production profile, shutting in production when regional gas prices are low. During the winter of 2015/16, Deep Panuke production averaged 82 MMcf/d.
 - The **Canaport LNG** terminal still has firm supply contracts for approximately 5 Bcf per year of supply, and also receives additional spot shipments. Canaport sendout is limited to the coldest winter days when gas prices are highest.

Summary:

Projected New England Gas Supply Capabilities (continued)



- **LNG Terminals** – no changes to existing capacity
 - Distrigas **Everett LNG**: Nominal sendout capacity is unchanged at 0.7 Bcf/d. During the winter of 2015/16, Everett sendout to pipelines (combined to AGT and TGT) averaged 88 MMcf/d and reached a maximum of 324 MMcf/d on Feb 14, 2016.
 - Excelerate **Northeast Gateway LNG**: Nominal sendout capacity is unchanged at 0.6 Bcf/d. Northeast Gateway received its first shipments in over 5 years this past winter. During the winter of 2015/16, Northeast Gateway sendout to AGT averaged 27 MMcf/d and reached a maximum of 238 MMcf/d on Feb 13, 2016.
 - GDF Suez **Neptune LNG**: *Currently inactive* - At GDF Suez's request, the Neptune LNG terminal's deep water port license was suspended in 2013.
- **LDC Peak Shaving Capacity** – no changes to existing capacity
 - The LDCs' peak shaving facilities have a total send-out capability of 1,456 MMcf/d and a total storage capacity of about 16 Bcf.
 - The proposed **Access Northeast** project included a new 400 MMcf/d peak shaving facility in Massachusetts; however, it appears unlikely this project proceed before the end of 2020.

Summary:

Proposed Pipeline Expansions into or within New York



- The **Constitution Pipeline** could have a positive impact on gas supply availability in New England; however, it is facing significant opposition and it appears unlikely it will come online before the end of 2020.
 - Constitution will bring additional gas supplies from Northeast PA-Marcellus to Iroquois’s Wright compressor station, immediately upstream of New England.
 - FERC approved Constitution in April 2014, but the project was put on hold after the New York State Department of Environmental Conservation (NYDEC) decision, in April 2016, to deny the application for a water quality permit. In August 2016, the project received a two-year extension from FERC.
 - As a result of the Constitution delay, the related **Wright Interconnect** project on Iroquois is also delayed.
- Iroquois first proposed its **South to North** project in 2013, but it has not received sufficient shipper interest to move forward.
 - The South to North project would reverse capacity on the northern end of Iroquois’s system, moving gas from Wright to Waddington; this project would require additional supplies of gas into Wright (e.g., from Constitution, which is indefinitely delayed).
- Other projects under development by Dominion (**New Markets**), National Fuel (**Northern Access 2016**), Millennium (**Eastern System Upgrade**), and Williams (**Northeast Supply Enhancement**) appear to be proceeding.
 - In May 2016, National Fuel notified FERC that it was revising the in-service date for **Northern Access 2016** to 2017. In the letter to FERC, National Fuel cited the slow-down in drilling activity by Seneca Resources, the E&P division of National Fuel and project’s foundation shipper.

Proposed Pipeline Expansions into or within New York



Project Name	Company	Route	Planned In-Service Date	Capacity (MMcf/d)	Status	ICF's Handicapping
New Market Project	Dominion Transmission	Chemung, Herkimer, Madison, Montgomery, Schenectady, and Tompkins counties, NY	Nov-2016	112	FERC Approved	Likely Online by Nov-2016
South to North	Iroquois Gas Transmission	Reversal of system between Wright and Waddington	Nov-2017	650	Announced	Unlikely to come online by 2020
Northern Access 2016	National Fuel & Empire Pipeline	Loop pipe and add compression to increase deliveries to Niagara and Chippawa. ¹	Nov-2017	497	FERC filed	Likely Online by Nov-2017
Millennium Eastern System Upgrade	Millennium Pipeline	Steuben County, New York to Rockland County, New York	Nov-2018	200	FERC Pre-Filed	Likely Online by Nov-2018
Constitution Pipeline	Williams/Cabot Oil/Piedmont	Susquehanna, PA to TGP/IGT Wright Interconnect in Schoharie, NY	Dec-2018	650	FERC Approved, but delayed	Unlikely to come online by 2020
Wright Interconnect Project	Iroquois Gas Transmission	Expand Wright Interconnect to accommodate Constitution Pipeline	Dec-2018	650	FERC Approved, but delayed	Unlikely to come online by 2020
Northeast Supply Enhancement	Williams Trans-continental	York County, PA to Queens County, NY	Nov-2019	400	FERC Pre-Filed	Likely Online by Nov-2019



Appendix A:
Other Proposed Pipeline Projects in
the Northeast

Summary:

Proposed Pipeline Expansions within Eastern Canada



- Between 2016 and 2019, there are 8 pipeline projects that will impact pipeline capacity within Ontario.
 - While these projects do not have a direct impact on gas supplies into New England, they will provide additional capacity for flows through Ontario and Quebec, making **PNGTS's Continent to Coast** project more viable.
- TCPL's **Eastern Mainline Expansion** will only proceed if the **Energy East** project (which will convert a portion of the TCPL mainline to oil transport) goes forward. At this point, both projects appear to be progressing.
 - Even if these two projects do not proceed as planned, there will be minimal net impacts on Ontario gas supplies, as the Eastern Mainline Expansion is designed to replace capacity taken out of service by Energy East.

Proposed Pipeline Expansions within Eastern Canada



Project Name	Company	Route	Planned In-Service Date	Capacity (MMcf/d)	Status	ICF's Handicapping
Dawn to Parkway Project	Union Gas	Includes Bradford-Kirkwall pipeline and Lobo compressor project.	Nov-2016	690	Under Construction	Likely Online by Nov-2016
Kings North - Parkway West	TransCanada Pipe Line	Will receive gas from the recently completed Enbridge Greater Toronto Area (GTA) pipeline.	Nov-2016	347	Under Construction	Likely Online by Nov-2016
Dawn to Parkway Project 2016	Union Gas	48" Hamilton to Milton loop	Nov-2016	430	Under Construction	Likely Online by Nov-2016
Maple Compression	TransCanada Pipeline	Incremental compression added at existing Maple compression station	Nov-2016	438	Under Construction	Likely Online by Nov-2016
Vaughan Pipeline Loop	TransCanada Pipeline	Connects the Enbridge GTA pipe to Maple	Apr-2017	445	Filed with NEB	Likely Online by Apr-2017
Dawn to Parkway Projects 2017	Union Gas	Bright, Lobo, and Dawn H compression enhancements	Nov-2017	480	Under Construction	Likely Online by Nov-2017
Energy East Conversion	TransCanada Pipeline	Conversion of a portion of TCPL mainline capacity from gas to oil	Apr-2019	-1,140	Filed with NEB	Likely Online by Apr-2019
Eastern Mainline Expansion	TransCanada Pipeline	Complete loop of Ontario eastern triangle in conjunction with Energy East pipeline conversion.	Apr-2019	672	Filed with NEB	Likely Online by Apr-2019

Summary:

Proposed Pipeline Expansions in the Greater Northeast



- Other proposed pipeline expansion in the greater Northeast will not have a direct impact on gas supply availability to New England.
 - However, any delays in the development of take-away capacity from Marcellus/Utica will tend to limit the development of new gas supplies.
- Other projects are designed to move Marcellus/Utica supplies to markets on the Gulf Coast (**Gulf Markets, Leach Xpress/Rayne Xpress**), the Midwest (**Lebanon West II, Rover, NEXUS**), the South Atlantic (**Atlantic Sunrise**), and New Jersey (**Marcellus to Market, Diamond East, and PennEast**).
 - Of the three projects to New Jersey, only **PennEast** appears to be moving forward; the other two have not filed with FERC yet and do not appear to have sufficient shipper interest.
 - **NEXUS** has secured firm contracts for only about 60% of the project's total capacity; without additional firm contracts it is unlikely to receive FERC approval.

Other Proposed Pipeline Expansions in the Greater Northeast



Project Name	Company	Route	Planned In-Service Date	Capacity (MMcf/d)	Status	ICF's Handicapping
Lebanon West II	Dominion Transmission	SW PA to Eastern OH via Dominion's TL-400 Line	Nov-2016	130	Under Construction	Likely Online by Nov-2016
Gulf Markets Expansion Phase 1	Texas Eastern	Providing Marcellus supply to Texas Eastern Mainline and Gulf Coast markets	Nov-2016	350	Under Construction	Likely Online by Nov-2016
Gulf Markets Expansion Phase 2	Texas Eastern	Providing Marcellus supply to Texas Eastern Mainline and Gulf Coast markets	Aug-2017	300	Under Construction	Likely Online by Aug-2017
Leach Xpress / Rayne Xpress	Columbia Gas Transmission	Marcellus and Utica to Leach KY interconnect with CGT	Nov-2017	1,500	Filed with FERC	Likely Online by Nov-2017
Atlantic Sunrise	Williams Transcontinental	Reversal of Transco Mainline from PA to AL	Nov-2017	1,700	Filed with FERC	Likely, but potential for 1 year delay (Nov-2018)
Marcellus to Market	Texas Eastern	Luzerne County, PA to Texas Eastern's Zone 3 in NJ and PA	Nov-2017	125	Announced	Unlikely to come online by 2020
Rover Pipeline	Energy Transfer Partners	SW Ohio to Defiance, Ohio; then to Livingston County MI (Vector interconnect)	Nov-2017	3,250	Filed with FERC	Likely Online by Nov-2017
NEXUS	Spectra / DTE	Eastern Ohio to Michigan	2017	1,500	Filed with FERC	Unlikely to come online by 2020
Diamond East	Williams Transcontinental	Pennsylvania to New Jersey	Jun-2018	1,000	Announced	Unlikely to come online by 2020
PennEast Pipeline	AGL, NJ, and UGI	Pennsylvania to New Jersey	Sep-2018	1,075	Filed with FERC	Likely Online by Sep-2018



Appendix B: Details on Proposed Pipeline Projects

Spectra Algonquin Incremental Market (AIM) Project



- **Company:** Spectra
- **Project Website:** <http://www.spectraenergy.com/Operations/US-Natural-Gas-Operations/New-Projects-US/Algonquin-Incremental-Market-AIM-Project/>
- **Route:** New Jersey to Massachusetts Algonquin looping and compression
- **Length:** 37.6 miles of new/replacement pipe
- **Project Type:** Replacing various segments of mainline, new loop segment and lateral extension, compressor station upgrades.
- **Status:** Under construction, partially in-service
- **News:** FERC granted permission on May 27 for partial in-service of the incremental capacity, including the Burrillville Compressor Station upgrades in Burrillville, R.I., and Chaplin Compressor Station upgrades in Chaplin, Conn.

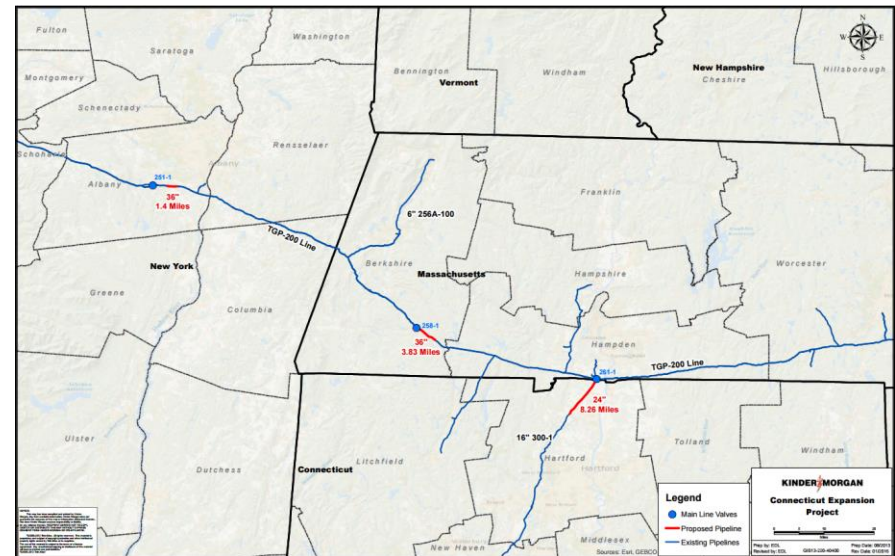


On August 26, construction halted at on horizontal directional drilling (HDD) under the Hudson River when the drill stem become disconnected from the pipe. The problem was further complicated when nearby wetlands were disturbed (without prior FERC permission) as the construction crew tried to retrieve the drill stem. The next attempt to complete the HDD will be in 3 to 4 weeks. Combined with the already-lapsed time since the HDD pullback was first attempted, this adds roughly 6 to 7 weeks to the construction timeline.

Tennessee Gas Connecticut Expansion Project



- **Company:** Tennessee Gas (Kinder Morgan)
- **Project Website:** http://www.kindermorgan.com/business/gas_pipelines/east/connecticut/
- **Route:** New Jersey to Massachusetts Algonquin looping and compression
- **Length:** 13.42 miles of new pipeline
- **Project Type:** Looping and upgrade of the existing pipeline that runs from Wright, New York through Berkshire & Hampden Counties, MA into Hartford County, Connecticut.
- **Status:** FERC approved on March 15, 2016.
- **News:** Base on a status report filed with FERC on September 15, 2016, construction has not yet begun on the project. Tennessee received the Water Quality Certification from New York Department of Environmental Conservation on February 3, 2016, issued under Section 401 of the Clean Water Act (CWA). On June 29, 2016, Tennessee received a similar CWA Section 401 Water Quality Certification from Massachusetts Department of Environmental Protection (DEP). An appeal has been filed before the Massachusetts DEP on its CWA Section 401 certificate and Tennessee has filed a motion for declaratory order in federal district court seeking relief from the Massachusetts DEP hearing process pursuant to the Natural Gas Act. While the Connecticut Department of Energy and Environmental Protection (CT DEEP) published a draft Water Quality Certification in the spring of 2016, the CT DEEP has not yet issued the final certification and the statutory one-year timeframe for issuing such certification expired on April 24, 2016.

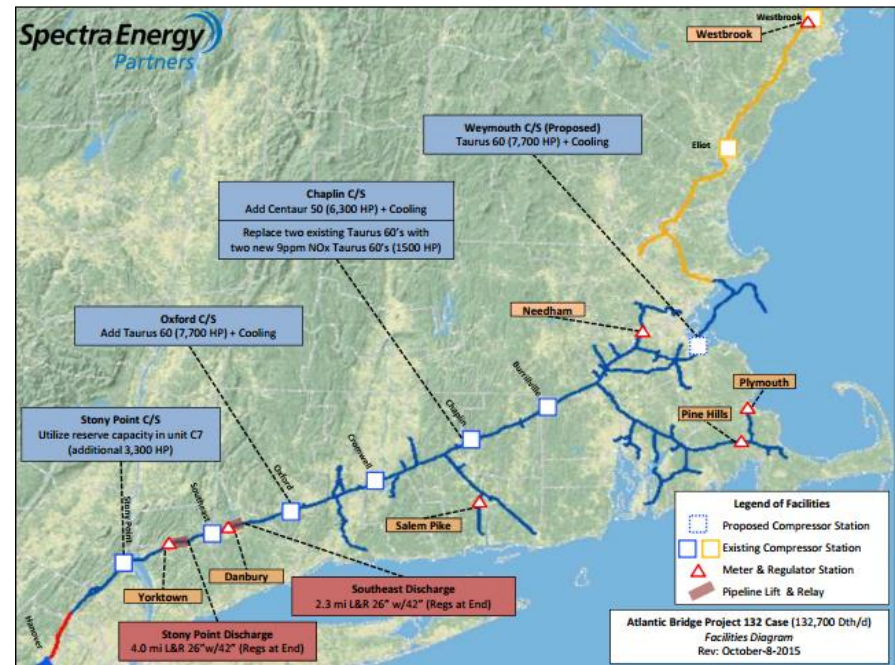


Spectra Atlantic Bridge



- **Company:** Algonquin and Maritimes & Northeast (Spectra)
- **Project Website:** <http://www.spectraenergy.com/Operations/US-Natural-Gas-Operations/New-Projects-US/Atlantic-Bridge/>
- **Route:** Bergen County, New Jersey through the Maritimes in Maine
- **Length:** 6.3 miles of new mainline take-up and relay pipeline
- **Project Type:** Primarily take up and relay. Looping and additional compression on the existing Algonquin system, as well as bi-directional flow on the existing Maritimes system.
- **Status:** Applied for FERC approval in October 2015. Received a favorable environmental assessment in May 2016.
- **News:** Repsol, which operates the Canaport LNG import facility near St. John, has expressed concern about reversing the flows to send gas north on the Maritimes pipeline. Repsol said in a statement in December 2015 that, “Algonquin and Maritimes should indicate whether any existing Maritimes capacity or compressors will be used for the Atlantic Bridge project and, if so, describe when the capacity or compressors were so dedicated and provide all agreements related to the commitment of the capacity or compressors to the project.”

The mayor of Weymouth, MA has been opposing the proposed compressor station. In July, the Massachusetts Office of Energy and Environmental Affairs denied a request by the Weymouth mayor to tie the environmental approval of the Atlantic Bridge project to the Northeast Access project.

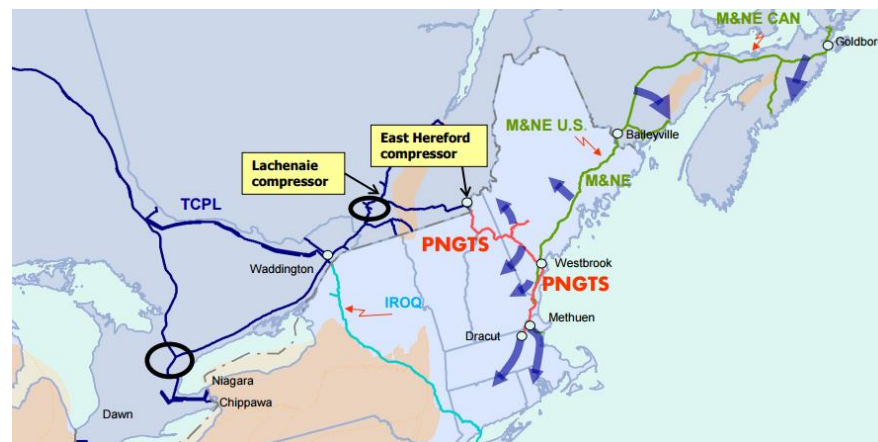


PNGTS Continent to Coast (C2C)



- **Company:** Portland Natural Gas Transmission System
- **Project Website:**
<http://www.transcanada.com/announcements-article.html?id=1703748>
- **Route:** Pittsburg, New Hampshire to Westbrook, Maine
- **Project Type:** Incremental compression expansion upstream of the Canada-U.S. border crossing at Pittsburg; no construction on the U.S. system.
- **Status:** Because the C2C project does not require construction in the U.S., PNGTS has not submitted an application to FERC.
- **News:** In January 2015 PNGTS said in a customer notice that was reopening the C2C binding open season first opened in 2013. The new open season ran concurrently with the new TCPL and IGT open seasons, and a new upstream capacity offering by Union Gas.

PNGTS has indicated there was sufficient interest during the last open season to proceed, but has not announced the contracted volume; the total capacity offering was 180 MMcfd, but ICF estimates contracts are closer to 110 MMcfd.

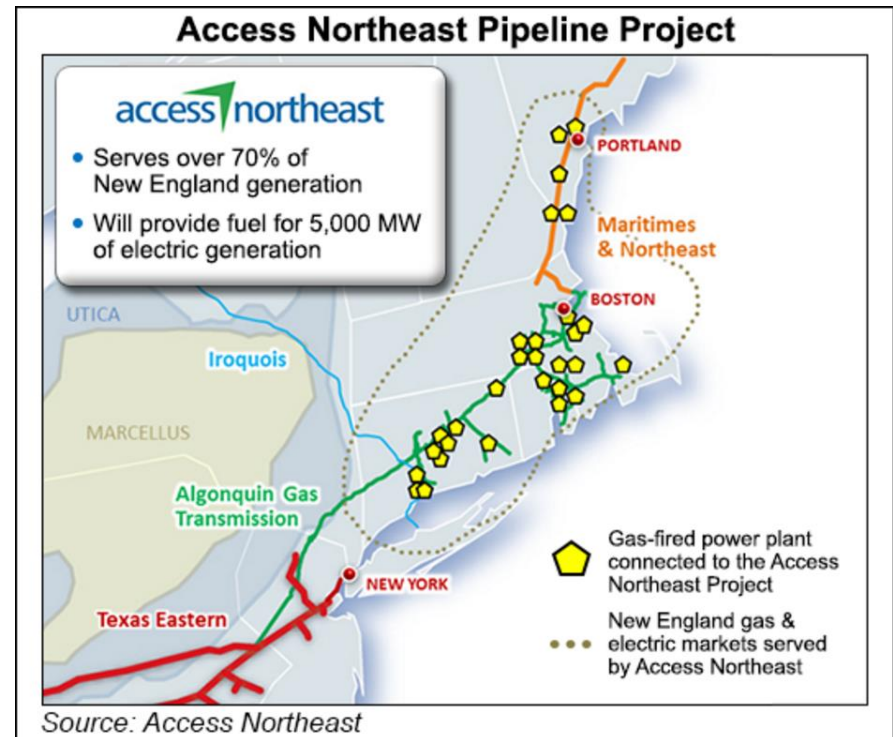


Spectra Access Northeast



- **Company:** Algonquin Gas Transmission (Spectra Energy) with support from Eversource Energy and National Grid
- **Project Website:**
<http://www.spectraenergy.com/Operations/US-Natural-Gas-Operations/New-Projects-US/Access-Northeast/>
- **Route:** Pipeline through Massachusetts, Connecticut, Maine and Rhode Island.
- **Length:** 123 miles
- **Project Type:** 500 MMcf/d expansion of the Algonquin system, plus a new LNG peak shaving facility in Massachusetts with a maximum sendout capability of 400 MMcf/d.
- **Status:** The project is in pre-filing status with FERC and the partners are still targeting a November 1, 2018 in service date.
- **News:** In a press release issued August 24, 2016, Spectra said that it is move ahead with the project despite the Supreme Judicial Court ruling in Massachusetts, which prohibits the MA DPU from approving gas pipeline contracts for electric distribution companies (EDCs); Massachusetts EDCs accounted for about 45% (400 MMcf/d) of the proposed project's capacity.

The Conservation Law Foundation and a coalition of other environmental interest groups have intervened with the public service/public utility commissions in each of the four states Access Northeast would serve.



Kinder Morgan Northeast Energy Direct (NED)



- **Company:** Tennessee Gas Pipeline (Kinder Morgan)
- **Project Website Inactive, 2014 project description:** http://pipeportal.kindermorgan.com/portalui/DownloadDocs/DART/TGPD/Presentations%5C09231415-123119-0-Northeast%20Energy%20Direct_NECA.pdf
- **Route:** 188-mile Market Path from Wright, New York to Dracut, Massachusetts and a 41-mile Supply Path from the existing Line 300 in Pennsylvania to Wright, New York.
- **Length:** 424 miles
- **Project Type:** Greenfield pipeline
- **Status:** On Hold. FERC application withdrawn.
- **News:** On April 20, 2016, Tennessee Gas announced that it was putting the project on hold after failing to obtain the necessary capacity commitments. On May 23, 2016, Kinder Morgan formally withdrew the application from FERC.



Dominion New Market Project



- **Company:** Dominion
- **Project Website:** <https://www.dom.com/corporate/what-we-do/natural-gas/new-market-project>
- **Route:** Chemung, Herkimer, Madison, Montgomery, Schenectady, and Tompkins counties, New York
- **Project Type:** Adding compression capacity
- **Status:** FERC approved
- **News:** On April 28, 2016 FERC issued a certificate of public convenience and necessity to Dominion Transmission for the project. FERC discussed and dismissed various objections to the project cited by New York politicians (state and federal), individuals and environmental organizations. It took particular note of a citizen group, Ostego 2000, that pushed for an environmental impact statement (EIS). On June 21, 2016 FERC denied the request from Otsego 2000 to stop all construction on the Dominion New Market Project.

The New York State Department of Environmental Conservation (NYSDEC) issued a Public Notice of Application Completeness on July 6, 2016 but the NYSDEC comment period was extended to September 12, 2016.



Iroquois South to North (SoNo)



- **Company:** Iroquois
- **Project Website:** <http://www.iroquois.com/project/sono/>
- **Route:** From Dominion Transmission in Canajoharie, NY, Algonquin Gas Transmission in Brookfield, CT and the proposed Constitution Pipeline in Wright, NY to Waddington, NY
- **Length:** 344 miles
- **Project Type:** Reverse the flow on the Iroquois pipeline
- **Status:** Announced
- **News:** The project will allow gas to flow north on mild days to fill underground Canadian storage fields and then reverse flow south during extreme weather to redeliver this domestic gas to Iroquois' markets in New York and New England.

Iroquois's website lists the project as "under development" but the company has not pre-filed with FERC.

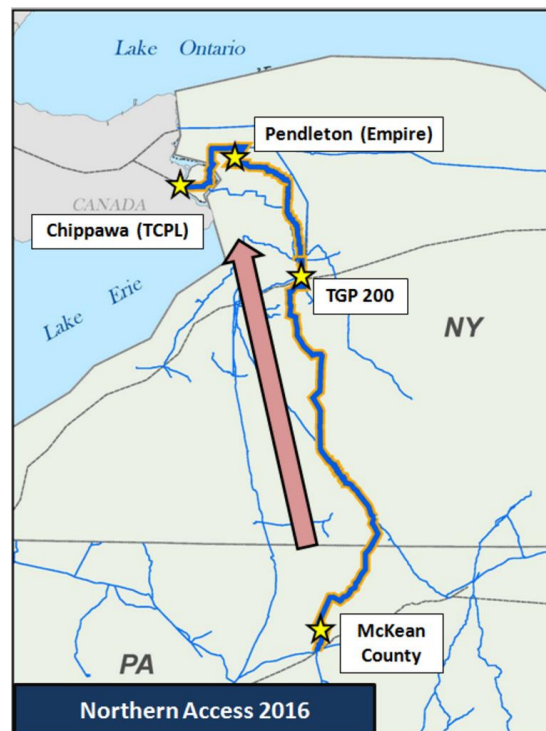


National Fuel Gas Company Northern Access 2016



- **Company:** National Fuel Gas Supply Corporation
- **Project Website:** <http://www.natfuel.com/Supply/NorthernAccess2016/default.aspx>
- **Route:** From an interconnection with NFG Midstream Clermont, LLC at Sergeant Township, Pennsylvania to a tie-in with National Fuel's existing Line X-North, near National Fuel's existing Porterville Compressor Station in the Town of Elma, New York.
- **Length:** 96 miles
- **Project Type:** New pipeline including an additional compressor station, a metering and regulating station, tie-in modifications, a dehydration facility and mainline block valves.
- **Status:** Applied for FERC approval. Received the environmental assessment on July 27, 2016.
- **News:** The project was delayed by one year in February 2016 after Seneca Resources (the E&P division of National Fuels Gas Company) announced it was scaling back its Marcellus production.

Three environmental organizations have asked the Pennsylvania Department of Environmental Protection (DEP) to extend the public comment period on water quality permits for National Fuel Supply Corp.'s Northern Access 2016 pipeline project and related permits for Seneca Resources Corp. shale development. Pennsylvania-based Allegheny Defense Project along with West Virginia-based Appalachian Mountain Advocates and the Pennsylvania Alliance for Clean Water and Air sent their request to the agency in August 2016, arguing that permit applications for both activities were incomplete because they failed to cite the cumulative effects of development.



Constitution Pipeline



- **Companies:** Williams (41%), Cabot Oil (25%), Piedmont (24%) and Washington Gas & Light (10%)
- **Project Website:**
<http://constitutionpipeline.com/>
- **Route:** Susquehanna County, Pennsylvania to the TGP/IGT Wright Interconnect in Schoharie County, New York.
- **Length:** 124 miles
- **Project Type:** Greenfield pipeline
- **Status:** On-hold. Received a two-year extension from FERC until 2018.
- **News:** The application for the project was submitted in April 2013. The project received FERC approval in April 2014 but was then put on hold after the April 2016 NYDEC decision to deny the application for a water quality permit. In August 2016, the project received a two-year extension from FERC.

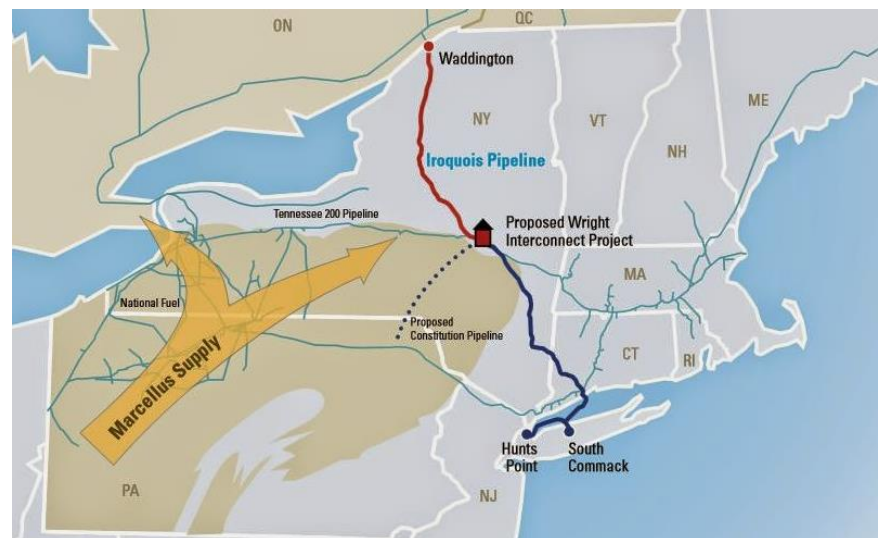
There are on-going legal challenges by Williams Partners LP and its co-developers in the state of New York to get the permits necessary to continue construction of the project.



Iroquois Wright Interconnect Project



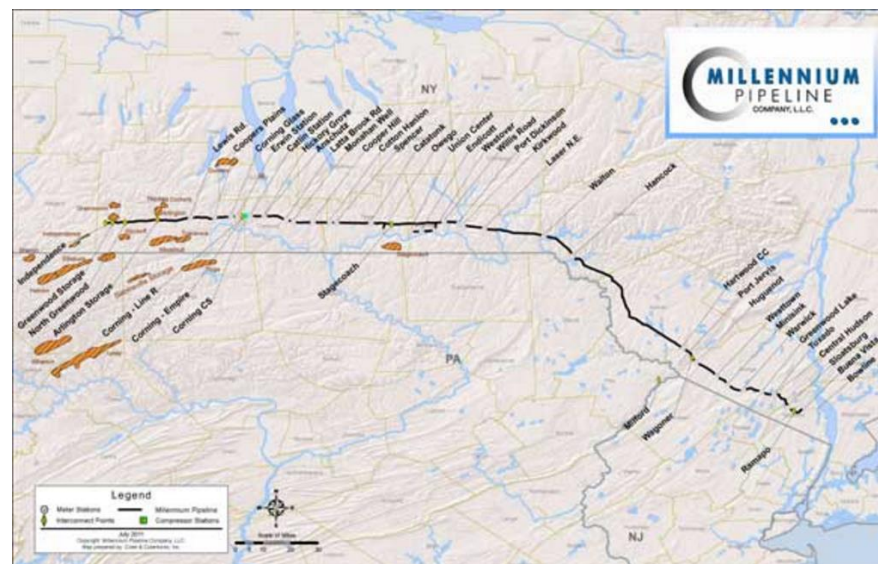
- **Company:** Iroquois Gas Transmission
- **Project Website:** <http://www.iroquois.com/project/WIP/>
- **Route:** Expand Wright Interconnect to accommodate the Constitution Pipeline from Susquehanna County, Pennsylvania.
- **Project Type:** Interconnection to receive gas from the Constitution pipeline.
- **Status:** Received FERC approval in December 2014 and then a two-year extension along with the Constitution Pipeline.
- **News:** On August 2, 2016 FERC granted Iroquois Gas Transmission a two-year extension to complete construction on the Wright Interconnect Project. The reason for the extension was the inability to get a water permit and a State Facility & Title V air permit under the Clean Air Act from the New York State Department of Environmental Conservation (NYSDEC). On December 24, 2014, the NYSDEC issued to Iroquois a notice of complete application and a public comment period. NYSDEC has not acted on Iroquois' application. Further, Iroquois states that it has diligently pursued the air permit and has initiated a court review proceeding in the U.S. Court of Appeals for the D.C. Circuit, seeking an order directing action on its air permit application.



Millennium Eastern System Upgrade



- **Company:** Millennium Pipeline (Columbia Pipeline Group)
- **Project Website:**
http://www.millenniumpipeline.com/eastern_system_upgrade.html
- **Route:** Steuben County, New York to Rockland County, New York. Corning compressor station to Ramapo, NY interconnect with Algonquin.
- **Length:** 7.8 miles
- **Project Type:** 7.8 miles of looped pipeline and two new compressors
- **Status:** On January 19, 2016 Millennium pre-filed with FERC. On August 2, 2016, Millennium filed an abbreviated application for a certificate of public convenience and necessity with FERC.
- **News:** Millennium requested that FERC grant the authorizations by July 31, 2017. According to documents filed with FERC, most of the 223,000 Dth/d of new capacity from the project (202,500 Dth/d) is already subscribed under long-term firm contracts with LDCs and municipalities. Millennium is currently marketing the remaining 20,500 Dth/d of capacity.

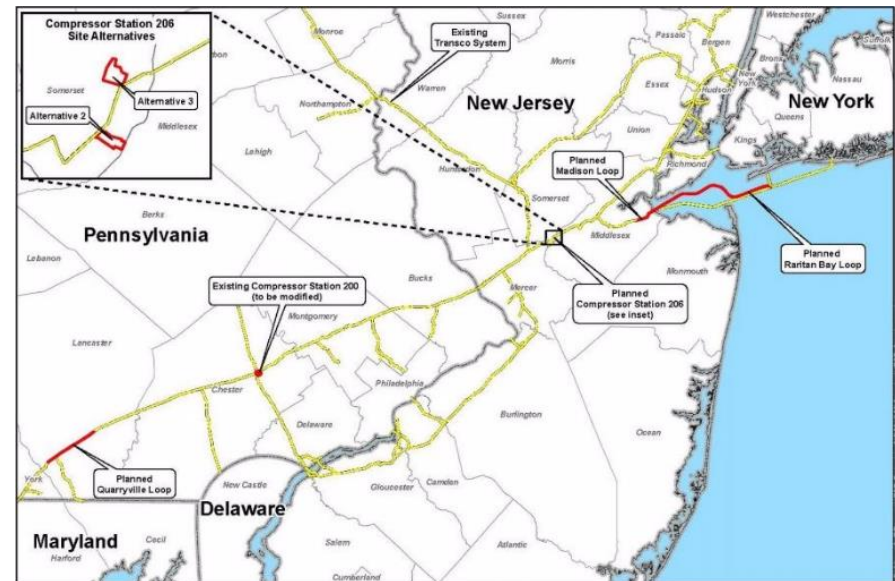


Transco Northeast Supply Enhancement



- **Companies:** Williams Transcontinental
- **Project Website:** <http://co.williams.com/expansionprojects/northeast-supply-enhancement/>
- **Route:** York County, Pennsylvania to Queens County, New York
- **Length:** 35 miles
- **Project Type:** New looping pipeline and additional compression
- **Status:** Pre-filed with FERC on May 9, 2016. FERC announced August 24, 2016 that it will prepare an environmental assessment and that the public comment period is open until September 23, 2016.
- **News:** The project's aim is to meet supply and reliability needs beginning with the 2019-2020 heating season and will provide incremental firm transportation capacity from Transco's Compressor Station 195 (York County, PA) to the Rockaway Transfer Point, an existing interconnection between Transco's Lower New York Bay Lateral and its Rockaway Delivery Lateral in New York State waters. The project is already fully subscribed.

Transco plans to submit a full FERC application for the project in March 2017 and has requested FERC approval for the project by May 2018 to meet its planned in-service date.



Union Dawn to Parkway Projects



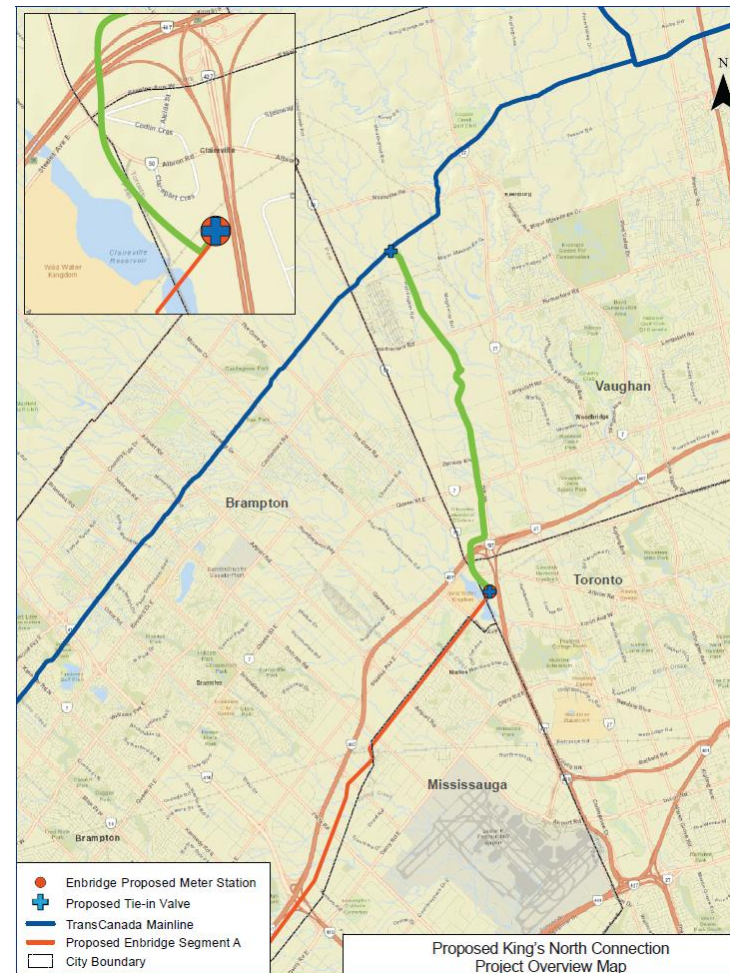
- **Companies:** Union Gas and Gaz Metro
- **Project Website:**
<http://www.spectraenergy.com/Operations/Canadian-Natural-Gas-Operations/Canadian-Natural-Gas-Transmission-Pipelines/Dawn-to-Parkway-Transmission-Pipeline/>
- **Route:** The Bradford-Kirkwall pipeline and the Lobo compressor
- **Length:** 20 kilometers
- **Project Type:** New compression and pipeline expansion
- **Status:** Under construction
- **News:** The project is on time and expected to come online in the fourth quarter of 2016. The project involves the installation of a new 44,500 horsepower compressor plus modifications to existing facilities at the Lobo Compressor Station and, the construction of approximately 20 km of NPS 48 pipeline extending from the Hamilton Valve Site to the Milton Valve Site. These facilities will provide incremental capacity of 442,770 GJ/d on Union's Dawn Parkway System.



TCPL Kings North - Parkway West Project



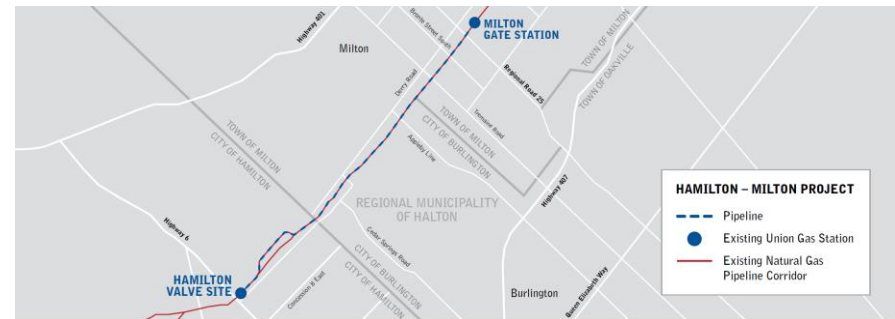
- **Company:** TransCanada Pipe Line
- **Project Website:** <http://www.transcanada.com/kingsnorthconnection.html>
- **Route:** Will receive gas from the Enbridge GTA pipeline. Through the cities of Vaughan, Brampton, and Toronto.
- **Length:** 11 kilometers
- **Project Type:** New pipeline
- **Status:** Under construction
- **News:** Construction of the project began in November 2015, and will take approximately 9 to 12 months, depending on seasonal and environmental conditions. Clean-up and reclamation is anticipated to take up to two years after construction is complete.



Union Dawn to Parkway Project 2016



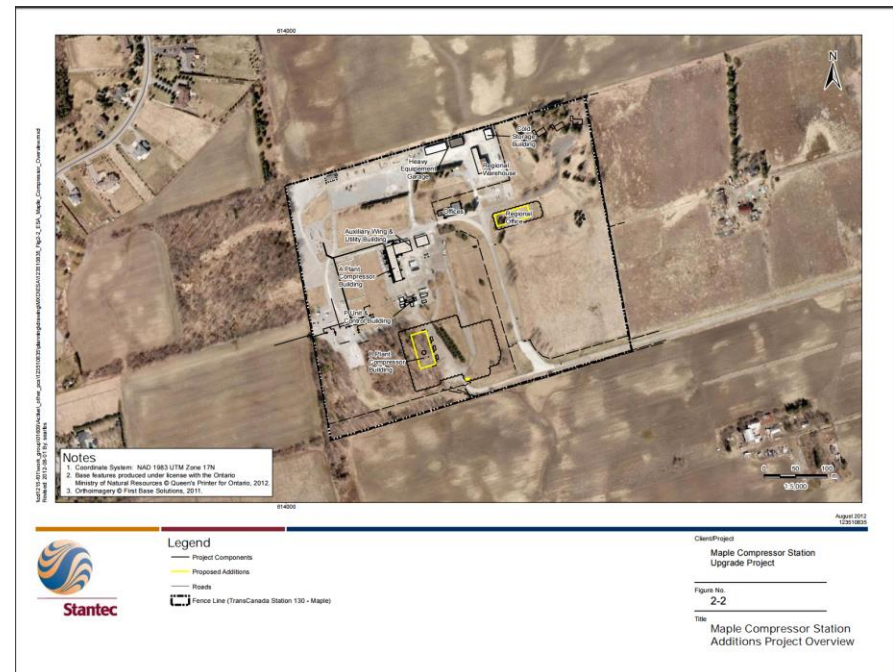
- **Company:** Union Gas
- **Project Website:** <https://www.uniongas.com/UnionGas/projects/dawn-parkway-system-expansion>
- **Route:** Hamilton, Ontario to Milton, Ontario loop
- **Length:** 20 kilometers
- **Project Type:** Pipeline expansion
- **Status:** Under construction
- **News:** 48-inch diameter steel natural gas pipeline through an existing corridor that already has three operating pipelines.



TCPL Maple Compression



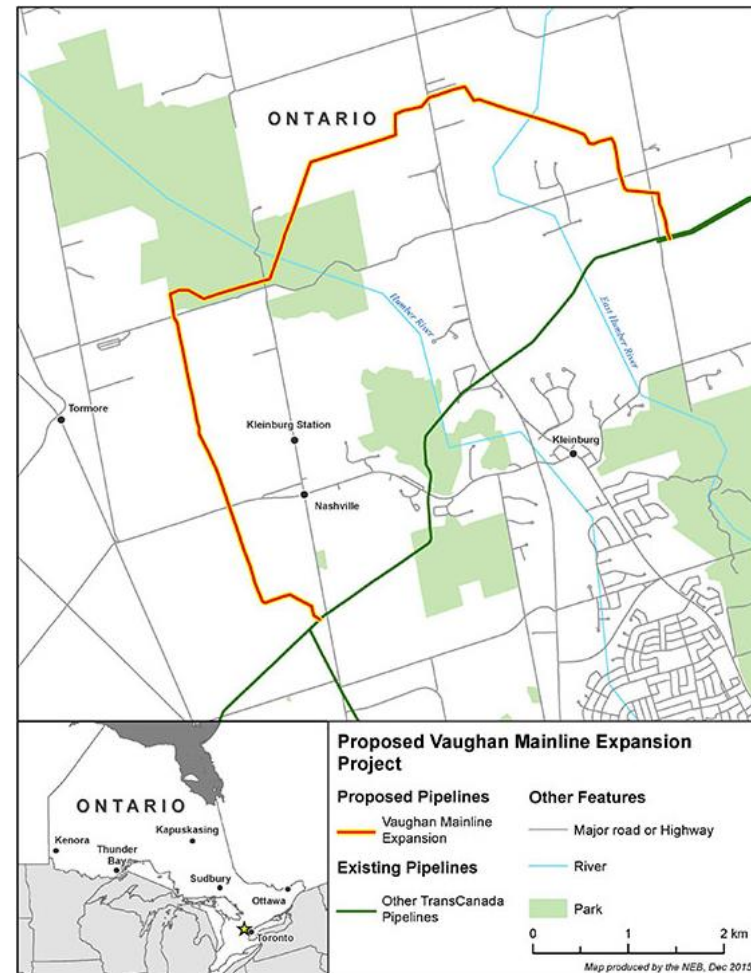
- **Company:** TransCanada Pipeline
- **Construction Notification (No Project Website):** https://www.vaughan.ca/council/councillor_iafrate/News%20and%20Speeches/Construction%20Start%20Notification%20Letter%20Feb%2024%202016.pdf
- **Project Type:** Incremental compression added at existing Maple compression station
- **Status:** Under construction
- **News:** Construction began on March 7, 2016 to add one 11 megawatt (electric) compressor unit within the existing compressor building.



TCPL Vaughan Pipeline Loop



- **Company:** TransCanada Pipeline
- **Project Website:**
<http://www.transcanada.com/vaughan-mainline.html>
- **Route:** Through the City of Vaughan and integrated with the mainline.
- **Length:** 12 kilometers
- **Project Type:** Pipeline and facility expansions within the Eastern Triangle portion of the Canadian Mainline system.
- **Status:** Approved by the National Energy Board (NEB)
- **News:** On August 4, 2016, the NEB conditionally approved the Vaughan Mainline Expansion after the route was altered to accommodate the concerns of some landowners. The pipeline will be subject to 19 conditions, including Aboriginal monitoring of construction for potential archaeological finds and habitat protection of the western chorus frog.

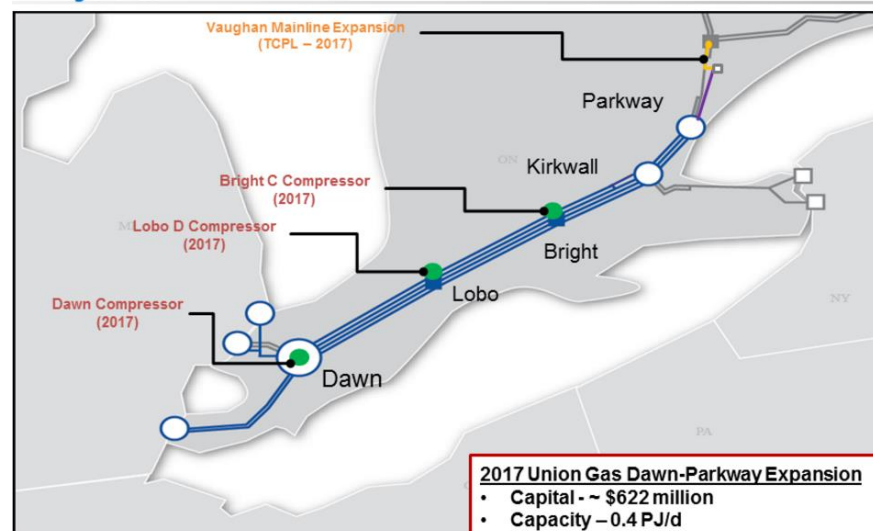


Union Dawn to Parkway Projects 2017



- **Company:** Union Gas
- **Project Website:**
<https://www.uniongas.com/UnionGas/projects/dawn-compression-station>
- **Route:** Additional compression between Dresden, Ontario and Mississauga, Ontario.
- **Project Type:** Compression enhancement
- **Status:** Under construction. The proposed project received regulatory approval from Ontario Energy Board (OEB) on Dec 22, 2015.
- **News:** The Union Gas 2017 Dawn to Parkway project includes the installation of three compressors and associated facilities at Union Dawn (Dawn H Compressor), Lobo (Lobo C Compressor), and Bright (Bright C Compressor).

2017 Dawn-Parkway Expansion Projects



- 2017 Union Gas Dawn-Parkway Expansion**
- Capital - ~ \$622 million
 - Capacity - 0.4 PJ/d
 - Fully contracted
 - OEB filing June 2015

TCPL Energy East Conversion



- **Company:** TransCanada Pipeline
- **Project Website:**
<http://www.transcanada.com/energy-east-pipeline.html>
- **Route:** Alberta to New Brunswick
- **Length:** 4600 KM
- **Project Type:** Conversion of one of TCPL's gas lines to oil
- **Status:** Application filed with the NEB.
- **News:** In July 2015, TCPL reached an agreement with Enbridge Gas Distribution, Union Gas and Gaz Metro over the proposed Energy East project. As part of the agreement, TCPL will build additional gas pipeline capacity in Ontario to replace a portion of the capacity that will be taken out of service by Energy East; this is the [Eastern Mainline Expansion](#) described on the next slide.

In September 2016, the National Energy Board suspended hearings on the project hearings after the panelists overseeing the project review all recused themselves due to reported conflicts of interest.



TCPL Eastern Mainline Expansion



- **Company:** TransCanada Pipeline
- **Project Website:** <http://www.easternmainline.com/>
- **Route:** York, Ontario to Stormont, Ontario. Complete loop of Ontario eastern triangle in conjunction with Energy East pipeline conversion.
- **Length:** 155 miles
- **Project Type:** Greenfield pipeline and nine new compressor units
- **Status:** Application filed with the NEB.
- **News:** On June 16, 2016, the National Energy Board (NEB) determined TransCanada's Eastern Mainline Project Application to be complete, signaling the beginning of the formal 21 month regulatory review period. As part of the hearing process, the NEB hosted Community Panel Sessions beginning in August 2016.

TransCanada announced August 24, 2016 that it worked out an Agreement in Principle with three natural gas distributors who had objected to its Energy East Pipeline project over concerns the gas to oil conversion would leave their eastern Canadian customers without enough gas. The agreement with Gaz Metro, Enbridge Gas Distribution and Union Gas will involve retooling the Eastern Mainline Project to add 50 MMcf/d more capacity. TransCanada will revise its Eastern Mainline application pending before Canada's National Energy Board to reflect the terms of the agreement.



Dominion Lebanon West II



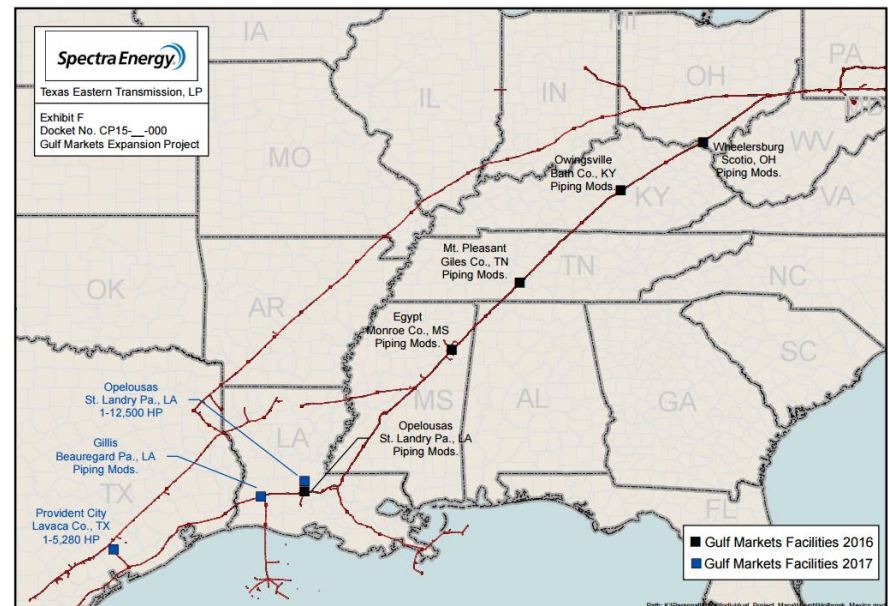
- **Company:** Dominion Compression
- **No Project Website, Description and Status at:**
<http://investors.dom.com/mobile.view?c=110481&v=202&d=3&i d=aHR0cDovL2FwaS50ZW5rd2l6YXJkLmNvbS9maWxpbmcueG1s P2lwYWdlPTEwNzc0NjcyJkRTRVE9MSZTRVE9MTgmU1FERVNDPV NFQ1RJT05fUEFHRSZleHA9JnN1YnNpZD01Nw%3D%3D>
- **Route:** Butler county, Pennsylvania to Lebanon (Warren county), Ohio via Dominion's TL-400 Line.
- **Length:** 235 miles
- **Project Type:** Replacement of 11 sections of pipe along an existing Dominion pipeline in one Pennsylvania county and eight Ohio counties and addition of a new compressor.
- **Status:** Under construction
- **Details:** The project received FERC approval on November 19, 2015. Shortly afterward, a coalition of environmental groups in Pennsylvania and Ohio petitioned FERC to revisit the decision. In late 2015, the Allegheny Defense Project, the FreshWater Accountability Project, Heartwood and the Ohio Valley Environmental Coalition challenged the process under which the project was approved and have asked FERC to reopen its environmental analysis (EA). The groups say that the project would encourage more gas production from the Utica and Marcellus regions, and that the National Environmental Policy Act (NEPA) requires FERC to consider the impact of that production on the environment, water quality and more. The groups are concerned that the pipeline would encourage more drilling.



Spectra Gulf Markets Expansion Phase 1



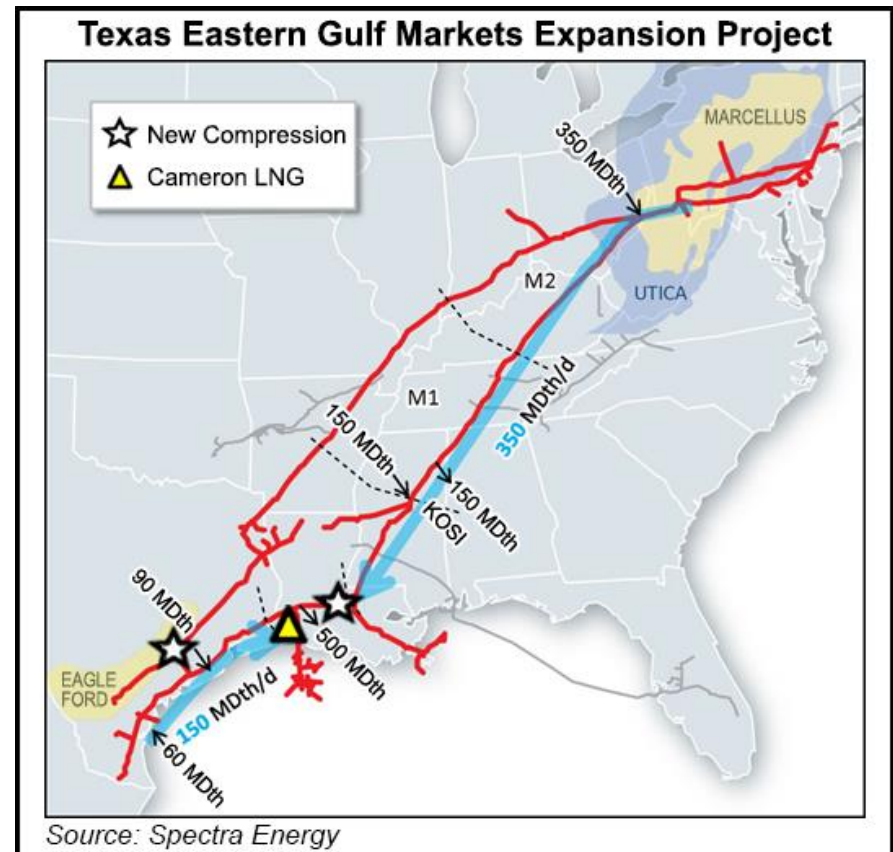
- **Company:** Texas Eastern (Spectra)
- **Project Website:**
<http://www.spectraenergy.com/Operations/US-Natural-Gas-Operations/New-Projects-US/Gulf-Markets-Expansion/>
- **Route:** Marcellus/Utica to Lavaca County, TX and the Gulf Coast (including the Cameron LNG facility)
- **Project Type:** Expansion of existing pipeline and addition of one new compressor to increase capacity and allow bi-directional flows
- **Status:** Under construction
- **News:** Phase 1 of the Gulf Markets Expansion will provide 350 MMcf/d of capacity. The work, consisting almost entirely of modifications, will require the construction of one compressor station in Lavaca County, Texas, to help handle the flow of Marcellus Shale gas to the Gulf Coast. The modifications will also allow southerly flow of gas from Texas Eastern's Zone M2 Uniontown Compressor Station to Zones 1 and the Zone WLA Gillis Compressor Station. Some capacity will become available to Cameron LNG before the in service date to support Cameron LNG Terminal activity. On May 3, 2016 FERC granted permission to begin construction on the Bath County, Ky. Owingsville Compressor Station.



Spectra Gulf Markets Expansion Phase 2



- **Company:** Texas Eastern (Spectra)
- **Project Website:**
<http://www.spectraenergy.com/Operations/US-Natural-Gas-Operations/New-Projects-US/Gulf-Markets-Expansion/>
- **Route:** Marcellus/Utica to Lavaca County, TX and the Gulf Coast (including the Cameron LNG facility)
- **Project Type:** Expansion of existing pipeline and addition of one new compressor to increase capacity and allow bi-directional flows
- **Status:** Under construction
- **News:** Phase 2 of the Gulf Markets Expansion will provide 300 MMcf/d of capacity.

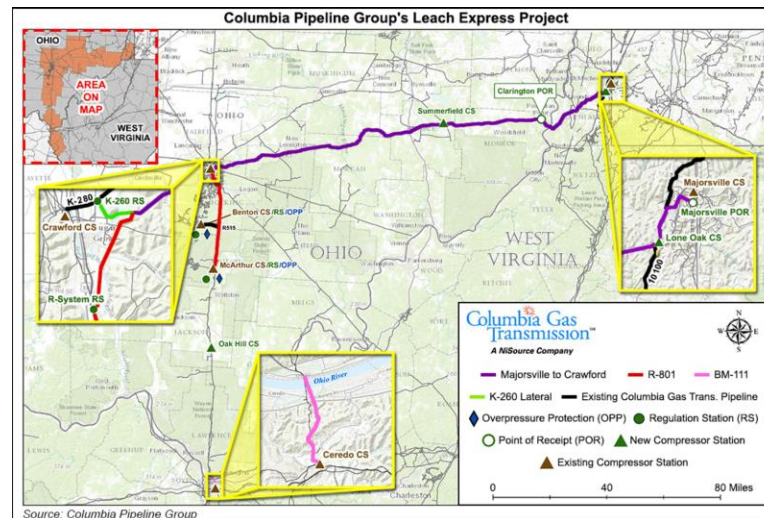


Columbia Leach Xpress / Rayne Xpress



- **Company:** Columbia Gas Transmission
- **Project Website:** <https://www.cpg.com/current-projects/leach-xpress-project>
- **Route:** Marcellus/Utica to Leach, KY interconnect; Leach to Rayne, LA.
- **Length:** 130 miles of new pipeline and 30 miles of looping pipeline
- **Project Type:** Mix of greenfield pipeline, looping, and additional compression on existing lines.
- **Status:** Application filed with FERC. On September 2, 2016, the final EIS was released, finding that adverse impacts could be mitigated to acceptable levels.
- **News:** On July 6 2016 backers of the Rover and Leach XPress pipeline projects provided FERC with detailed plans to co-locate along a 13-mile route where their proposed routes overlap in Monroe County, OH. The filings came in response to a FERC data request asking the pipelines to resolve issues related to the overlapping segment.

On June 13, 2016 the EPA filed comments with FERC stating that the combined Leach/Rayne draft environmental impact statement (DEIS) was insufficient, and recommended that additional information be included in the final version.



Transco Atlantic Sunrise

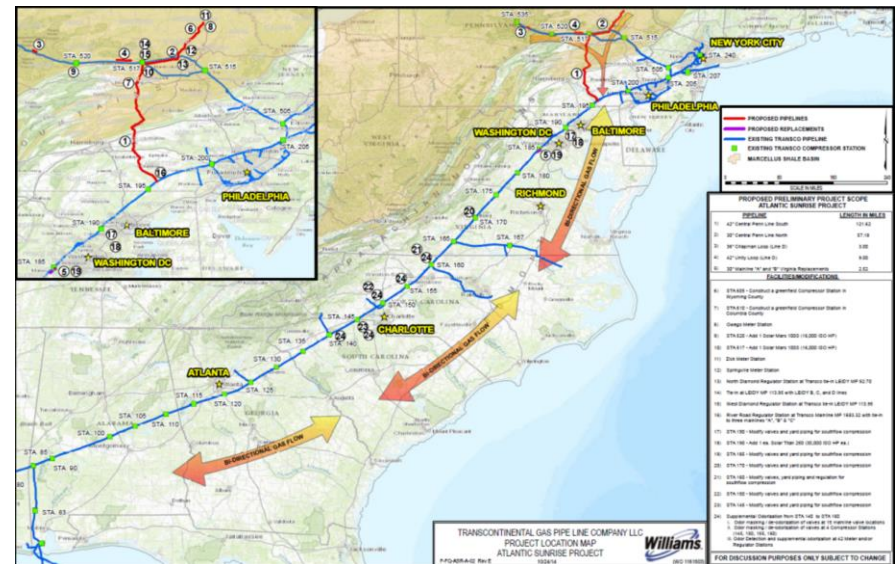


- **Company:** Williams Transcontinental
- **Project Website:** <http://atlanticsunriseexpansion.com/>
- **Route:** Northern Pennsylvania to Alabama. Includes deliveries to markets along Transco’s pipeline system in PA, MD, VA, NC, SC, GA, AL, and interconnects with existing pipelines serving the FL market.
- **Length:** 57.3 miles of new 30-inch-diameter pipeline (the “Central Penn Line North”) and 125.2 miles of new 42-inch-diameter pipeline.
- **Project Type:** Greenfield pipeline, incremental facilities, and modifications to Transco’s existing natural gas transmission system to enable north-to-south flow.
- **Status:** Application filed with FERC on March 31, 2015. A favorable draft environmental assessment was issued by FERC on May 5, 2016; the final assessment is due by the end of 2016.
- **News:** The Pennsylvania Game Lands Commission voted unanimously on July 19, 2016 to approve a required permit.

The Atlantic Sunrise Expansion Project garnered more than 800 comments to FERC since the draft EIS was released. The majority of comments came from landowners and environmental groups against the project.

On July 6, 2016, the EPA sent a letter to FERC criticizing the draft environmental assessment and recommending that FERC study whether new construction associated with Atlantic Sunrise might be avoided by expanding existing infrastructure or expanding the proposed PennEast pipeline.

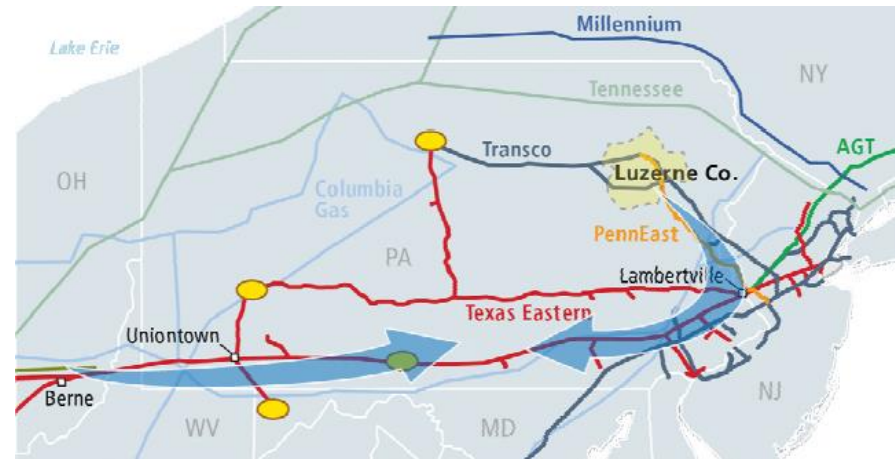
The project was also included on a list of 14 projects that was submitted by environmental groups on August 8, 2016, requesting that FERC complete a more comprehensive assessment of the greenhouse gas emissions that will be caused by pipeline expansion.



Texas Eastern Marcellus to Market



- **Company:** Texas Eastern (Spectra)
- **Project Website:** <http://www.spectraenergy.com/Operations/US-Natural-Gas-Operations/New-Projects-US/Marcellus-To-Market-Project/>
- **Route:** Luzerne County, Pennsylvania to Texas Eastern's Zone 3 in New Jersey and Pennsylvania
- **Project Type:** Adding incremental pipeline capacity.
- **Status:** Announced on March 4, 2015
- **News:** The project is still in the evaluation stage. Texas Eastern held an open season between March 4, 2015 and April 10, 2015, but does not appear to have received enough shipper interest to move forward. The project could transport up to 125,000 dekatherms per day of PennEast receipts and up to 75,000 dekatherms per day of AGT-Ramapo, AGT-Mahwah or TETLP-Lambertville receipts with 62.5% of total receipt capacity from PennEast; scalable receipts from Berne to Uniontown area.



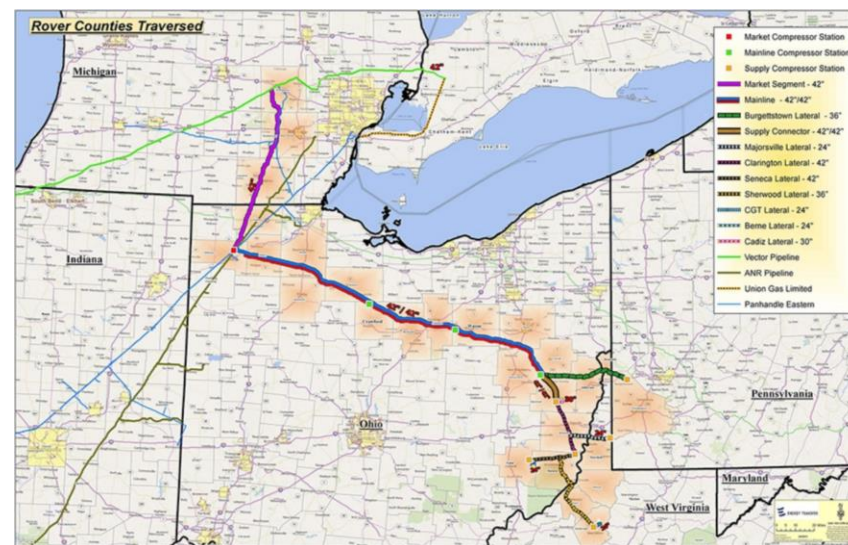
Energy Transfer Rover Pipeline



- **Company:** Energy Transfer
- **Project Website:** <http://www.roverpipelinefacts.com/>
- **Route:** Approximately 713-miles originating in Southeastern Ohio, Western West Virginia, and Southwestern Pennsylvania and continues north across the state of Ohio to an interconnection in Defiance, Ohio, in the Northwest. At Defiance, Rover supplies will split on two paths: backhaul of gas to the Gulf Coast on ANR pipeline, and additional new pipeline into Michigan terminating in Livingston County.
- **Project Type:** New greenfield pipeline.
- **Status:** FERC application submitted May 19, 2016.
- **News:** FERC released a favorable final environmental impact statement on July 29 2016.

The pipeline route was changed in early 2015 to avoid 6 Michigan counties where land owners were opposing the project.

About 95% of the available capacity on Rover has been contracted for by producers in Marcellus/Utica seeking an additional outlet for their production.



Spectra NEXUS



- **Company:** Spectra Energy / DTE
- **Project Website:** <http://www.nexusgastransmission.com/>
- **Route:** Approximately 255 miles from receipt points in eastern Ohio to existing pipeline system interconnects in southeastern Michigan.
- **Project Type:** New greenfield pipeline.
- **Status:** FERC application submitted November 20, 2015.
- **News:** FERC released a favorable draft environmental impact statement on July 8, 2016.

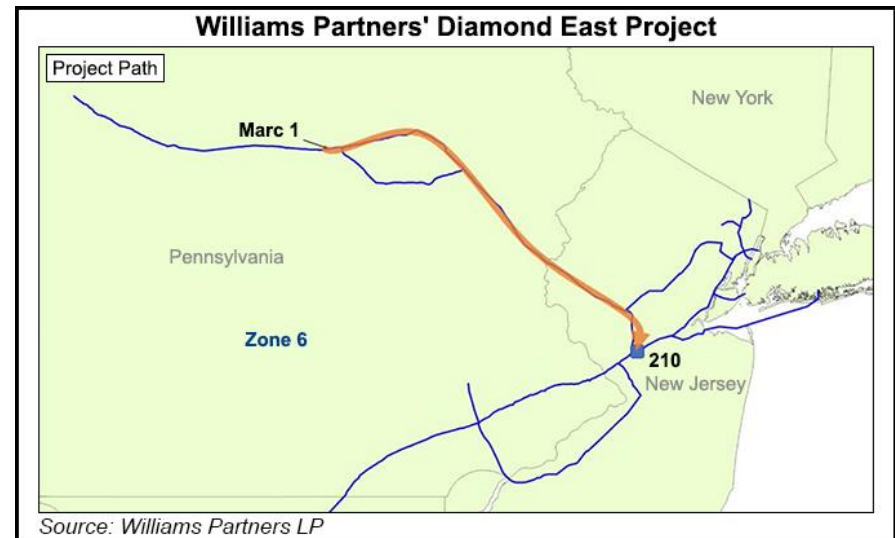
NEXUS competes against the Rover pipeline for providing new delivery capability into Michigan and Ontario. Currently, NEXUS does not have enough shipper commitments to meet FERC approval.



Transco Diamond East



- **Company:** Williams Transcontinental
- **No Project Website, Open Season Announcement:** <http://investor.williams.com/press-release/williams/williams-announces-open-season-transco-pipelines-diamond-east-project>
- **Route:** Lycoming and Luzerne Counties in Pennsylvania to Mercer County, New Jersey.
- **Length:** 50 miles
- **Project Type:** Looping for 50 miles and additional compressor capacity.
- **Status:** Announced but no FERC filing. Held an open season for the project between August 26, 2014 and September 23, 2014.
- **News:** No news since the 2014 open season.



PennEast Pipeline



- **Companies:** PennEast Pipeline Company LLC (AGL Resources, NJR Pipeline Company, and UGI Energy Services)
- **Project Website:** <http://penneastpipeline.com/>
- **Route:** Luzerne County, Pennsylvania to Transco's Trenton-Woodbury interconnection, Mercer County, New Jersey
- **Length:** 118 miles
- **Project Type:** A 100 mile greenfield pipeline, an approximately 2.1-mile, 24-inch diameter Hellertown lateral in Northampton County, Pennsylvania, an approximately 0.6-mile, 12-inch diameter Gilbert lateral in Hunterdon County, New Jersey, and an approximately 1.4-mile, 36-inch diameter Lambertville lateral in Hunterdon County, New Jersey.
- **Status:** Application filed with FERC. On July 22, 2016, FERC released the draft environmental impact statement. The comment period lasts until September 5, 2016 and the final FERC EIS is due to be released in December 2016.
- **News:** The FERC DEIS concluded that approval of the project would result in some adverse environmental impacts but most of the impacts would be reduced to less-than-significant levels with the implementation of PennEast's proposed mitigation and the additional recommendations in the draft EIS.

Since the release of the DEIS, many public comments have criticized the project and FERC's deadline for comments. The project was also included on a list of 14 projects that was submitted by environmental groups on August 8, 2016, requesting that FERC complete a more comprehensive assessment of the greenhouse gas emissions that will be caused by pipeline expansion.

Throughout August and September 2016 there have been numerous protests in New Jersey against the project.

