



Office of Energy Projects Energy Infrastructure Update *For February 2016*

Natural Gas Highlights

- Roadrunner Gas received authorization to place into service its border crossing on the International Boundary between the U.S. and Mexico in El Paso County, TX. The border crossing will provide 875 MMcf/d of export capacity to Mexico.
- Columbia Gas received authorization to construct and operate its Tri-County Bare Steel Replacement Project which will replace a portion of Columbia Gas's existing Line 1570 which serves the Pittsburgh, PA metropolitan area. The project will improve reliability and safety for existing customers and landowners.
- Transco received authorization to construct and operate its Hillabee Expansion Project which will provide 1,132 MMcf/d of capacity, in three phases, from receipt points at Transco's Station 85 located in Choctaw County, AL to a proposed point of interconnection with Sabil Trail Pipeline in Tallapoosa County, AL.
- Sabil Trail Pipeline received authorization to construct and operate its Sabal Trail Pipeline Project which will provide 1,075 MMcf/d of capacity from an interconnection with Transco in Tallapoosa County, AL to an interconnection with Florida Southeast Connection near Intercession City, FL
- Florida Southeast received authorization to construct and operate its Florida Southeast Connection Project which will provide 640 MMcf/d of capacity from Sabil Trail Pipeline near Intercession City, FL to a delivery point with Florida Power & Light Company near Indiantown, FL.
- Rockies Express received authorization to construct and operate its Zone 3 Capacity Enhancement Project which will provide 800 MMcf/d of east-to-west capacity on its mainline from the Clarington Hub in Clarington, OH to Lebanon OH and Moultrie County, IL, respectively.
- National Fuel received authorization to construct and operate its Line D Expansion Project which will provide 77.5 MMcf/d of capacity on its existing Line D system to serve markets in Erie and Warren, PA and will ensure meeting all existing storage withdrawal obligations.
- The Commission authorized the abandonment by transfer of Regency Field Services existing Coyanosa Residue Line located in Pecos County, TX to Oasis Pipeline. The Coyanosa Residue Line has a capacity of 100 MMcf/d and connects the Coyanosa processing plant to El Paso Natural Gas pipeline.
- Columbia Gas requests authorization to increase the maximum allowable operating pressure (MAOP) of its Line PM-117 located in Johnson and Martin Counties, KY and to replace facilities on its Line P-240 located in Lawrence County, KY. The increase in MAOP would provide 20 MMcf/d of capacity on Columbia Gas's existing system.
- Cameron Interstate Pipeline requests authorization to decrease the diameter of 3.58 miles of pipeline authorized in the Cameron Pipeline Expansion Project from 42 inches to 36 inches and to adjust the design capacity by 20 MMcf/d.
- Millennium commenced the Commission's pre-filing process to construct and operate its Eastern System Upgrade Project which would provide 200 MMcf/d of capacity from Millennium's Corning Compressor Station located in Steuben County, NY to an interconnection with Algonquin located in Ramapo, NY.
- Impulsora Pipeline requests authorization to amend its Section 3 authorization to site, construct, and operate border-crossing facilities at the international boundary between the U.S. and Mexico in Webb County, TX. Impulsora Pipeline requests authorization to terminate the 12-inch diameter pipeline authorized under Section 3.
- Dominion Carolina requests authorization to vacate a portion of the certificated facilities issued to Dominion Carolina to construct and operate its Edgemoor Compressor Project. Dominion Carolina no longer requires the Cone Mills Lateral Extension located in Chester County, SC.
- TC Offshore requests authorization to abandon by sale to Avocet LNG its Grand Chenier System located offshore LA in the Gulf of Mexico and onshore LA. The offshore facilities would become non-jurisdictional upon abandonment by sale.
- ANR requests authorization to abandon in place one compressor unit each at its Delhi, Brownsville, and Shelbyville compressor stations, and two compressor units at its Sardis compressor station, all located on ANR's Southeast Mainline segment in LA, MS, TN, and IN. Total horsepower (hp) of the abandoned compressor units is 31,800 hp.

Natural Gas Activities in February 2016

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service	2			875.0	12.6	15,900
Certificated	6			3,724.2	719.8	455,057
Proposed	3			240.0	7.3	44,800



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Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Storage						
Placed in Service	0	0.0	0.0			0
Certificated	0	0.0	0.0			0
Proposed	0	0.0	0.0			0
LNG (Import & Export)						
Placed in Service	0	0	0			0
Certificated (Import/Export)	0	0	0			0
Proposed (Export)	0	0	0			0

Source: Staff Database

Natural Gas Activities through February 29, 2016 January through February 28, 2015

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service through February 28, 2015	3 1			897.0 100.0	47.8 0	15,900 9,470
Certificated through February 28, 2015	8 7			4,154.2 1,673.0	757.0 38.9	455,057 33,119
Storage						
Placed in Service through February 28, 2015	0 1	0.0 0.7	0 53			0 0
Certificated through February 28, 2015	0 1	0.0 1.7	0 0			0 0
LNG (Import & Export)						
Placed in Service through February 28, 2015	0 0	0 0	0 0			0 0
Certificated (Import/Export) through February 28, 2015	0 0	0 0	0 0			0 0

Source: Staff Database

Hydropower Highlights (nonfederal)

- Pine Creek Mine, LLC filed an original license application for the proposed 1.5 MW Pine Creek Mine Tunnel Hydroelectric Project No. 12532. The project would use groundwater, and would be located at the existing, inactive Pine Creek Mine, near the Town of Bishop, in Inyo County, CA.
- The Town of Pownal, VT filed an application to raise the capacity of its Pownal Hydroelectric Project No. 6795, from 0.4 MW to 0.5 MW. The project is located on the Hoosic River in the Town of Pownal, Bennington County, VT.



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Hydropower Project Activities in February 2016

Status	Conventional		Pumped Storage		Hydrokinetic		Total No. of Projects	Total Capacity (MW)
	No.	Capacity (MW)	No.	Capacity (MW)	No.	Capacity (MW)		
Filed								
License	1	1.500	0	0	0	0	1	1.500
10-MW Exemption	0	0	0	0	0	0	0	0
Capacity Amendment	1	0.100	0	0	0	0	1	0.100
Conduit Exemption	0	0	0	0	0	0	0	0
Issued								
License	0	0	0	0	0	0	0	0
10-MW Exemption	0	0	0	0	0	0	0	0
Capacity Amendment	0	0	0	0	0	0	0	0
Conduit Exemption	0	0	0	0	0	0	0	0
Placed in Service								
License	0	0	0	0	0	0	0	0
10-MW Exemption	0	0	0	0	0	0	0	0
Capacity Amendment	0	0	0	0	0	0	0	0
Conduit Exemption	0	0	0	0	0	0	0	0

Source: Staff Database

Hydropower Project Activities Year to Date (through February 29, 2016)

Status	Conventional		Pumped Storage		Hydrokinetic		Total No. of Projects	Total Capacity (MW)
	No.	Capacity (MW)	No.	Capacity (MW)	No.	Capacity (MW)		
Filed								
License	1	1.500	0	0	0	0	1	1.500
10-MW Exemption	0	0	0	0	0	0	0	0
Capacity Amendment	1	0.100	0	0	0	0	1	0.100
Conduit Exemption	0	0	0	0	0	0	0	0
Issued								
License	0	0	0	0	0	0	0	0
10-MW Exemption	0	0	0	0	0	0	0	0
Capacity Amendment	0	0	0	0	0	0	0	0
Conduit Exemption	0	0	0	0	0	0	0	0
Placed in Service								
License	0	0	0	0	0	0	0	0
10-MW Exemption	0	0	0	0	0	0	0	0
Capacity Amendment	0	0	0	0	0	0	0	0
Conduit Exemption	0	0	0	0	0	0	0	0

Source: Staff Database

Electric Generation Highlights

- Cameron Wind LLC's 165 MW Cameron Wind Project in Cameron County, TX is online.
- MDU Resources Group Inc.'s 18 MW natural gas-fired Lewis and Clark Project in Richland County, MT is online.
- American Municipal Power Inc's 29.3 MW Cannelton Ohio River Phase 1 Project in Hancock County, KY is online.



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- Southern Power Co.'s 20 MW Calipatria Solar Farm Project in Imperial County, CA is online. The power generated is sold to San Diego Gas and Electric Co. under long-term contract.
- L&D Solar LLC's 13 MW Burlington Solar Project in Burlington County, NJ is online.
- Williamston Speight Solar LLC's 15 MW Williamston Speight Solar Project in Martin County, NC is online. The power generated is sold to Dominion North Carolina Power under long-term contract.
- Smithfield Solar LLC's 5 MW Smithfield Solar Project in Johnston County, NC is online. The power generated is sold to Duke Energy Progress under long-term contract.

New Generation In-Service (New Build and Expansion)

Primary Fuel Type	February 2016		January – February 2016 Cumulative		January – February 2015 Cumulative	
	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)
Coal	0	0	0	0	0	0
Natural Gas	2	18	2	18	3	126
Nuclear	0	0	0	0	0	0
Oil	0	0	0	0	0	0
Water	1	29	1	29	0	0
Wind	1	165	7	635	9	763
Biomass	0	0	0	0	4	6
Geothermal Steam	0	0	0	0	1	45
Solar	6	58	35	447	42	328
Waste Heat	0	0	0	0	0	0
Other *	0	0	1	0	0	0
Total	10	270	46	1,129	59	1,268

Sources: Data derived from Velocity Suite, ABB Inc. and The C Three Group LLC which include plants with nameplate capacity of 1 MW or greater. The data may be subject to update.

Total Available Installed Generating Capacity

	Installed Capacity (GW)	% of Total Capacity
Coal	301.64	25.86%
Natural Gas	500.13	42.87%
Nuclear	107.03	9.17%
Oil	44.68	3.83%
Water	100.12	8.58%
Wind	74.48	6.38%
Biomass	16.67	1.43%
Geothermal Steam	3.90	0.33%
Solar	16.05	1.38%
Waste Heat	1.16	0.10%
Other*	0.77	0.07%
Total	1,166.63	100.00%

Sources: Data derived from Velocity Suite, ABB Inc. and The C Three Group LLC which include plants with nameplate capacity of 1 MW or greater. The data may be subject to update.

* "Other" includes purchased steam, tires, and miscellaneous technology such as batteries, fuel cells, energy storage, and fly wheel.



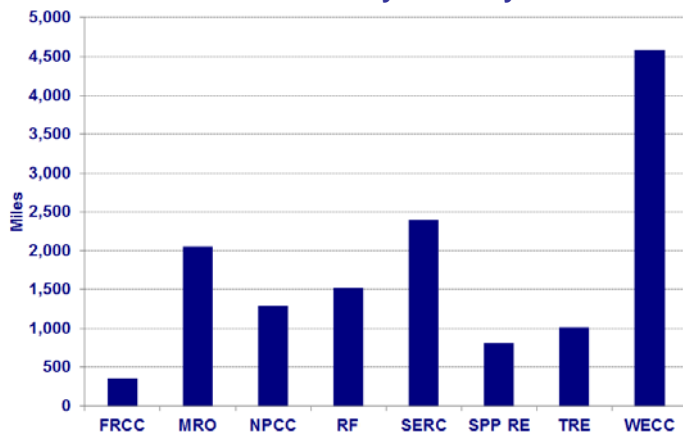
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Electric Transmission Highlights

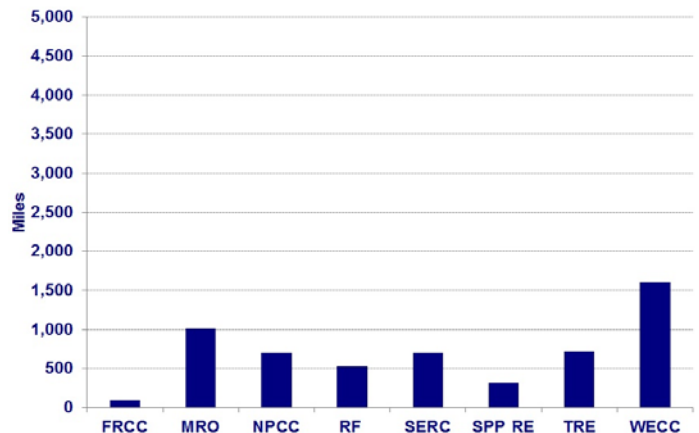
- New Hampshire regulators have approved an 18 mile, 345 kV Merrimack Valley Reliability Project that will connect NH and the Greater Boston area. The \$739.7 million project is expected to be completed in 2018.
- The U.S. Army Corps of Engineers issued a permit to allow the New England Clean Power Link to install a 97 mile underwater cable through Lake Champlain. Construction of the New England Clean Power Link is expected to start in 2017 and be ready for commercial operation in 2019 with an estimated cost of \$1.2 billion.
- ITC Holdings has submitted a joint permit application with Pennsylvania regulators and the U.S. Army Corps of Engineers for the Lake Erie Connector. The 73 mile, 320 kV Erie – Nanticoke Transmission Line is expected to be completed in 2019.
- American Transmission Co. LLC proposed a 5 mile, 345 kV Wisconsin – Illinois Reliability Project. The \$63 million project is expected to be completed in 2020.

Voltage (kV)	Transmission Projects Completed				Proposed Transmission Projects In-Service by February 2018	
	February 2016	February 2015	January – February 2016 Cumulative	January – December 2015 Cumulative	High Probability of Completion	All
	Line Length (miles)					
≤230	0.0	0.0	38.0	260.3	2,677.1	5,635.3
345	0.0	58.7	0.0	1,048.3	2,352.3	4,539.1
500	0.0	0.0	0.0	294.0	642.9	3,829.9
Total U.S.	0.0	58.7	38.0	1,602.6	5,672.3	14,004.3

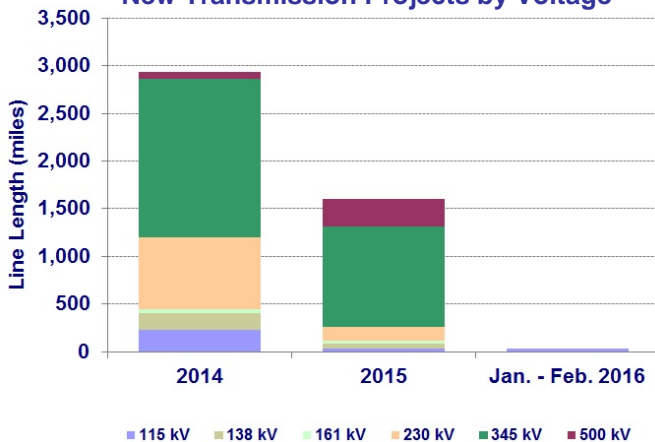
All Transmission Projects with a Proposed In-Service Date by February 2018



Transmission Projects with a High Probability of being completed by February 2018



New Transmission Projects by Voltage



Sources: Data derived from Staff Database and U.S. Electric Transmission Projects ©2016 The C Three Group, LLC.

Disclaimer: This Report contains analyses, presentations, and conclusions that may be based on or derived from the data sources cited, but do not necessarily reflect the positions or recommendations of the data providers.