



Office of Energy Projects Energy Infrastructure Update *For October 2015*

Natural Gas Highlights

- National Fuel received authorization to place into service its West Side Expansion and Modernization Project which will provide 175 MMcf/d of capacity for two shippers and improve service to existing customers on its system in PA.
- National Fuel received authorization to place into service a portion of its Northern Access 2015 Project which will provide on an interim basis 40 MMcf/d of capacity at an interconnection with Tennessee Gas in Erie County, NY.
- Tennessee Gas received authorization to place into service its Niagara Expansion Project which will provide 158 MMcf/d of capacity for one shipper from receipt points in PA to delivery points in NY.
- National Fuel and Empire Pipeline received authorization to place into service the Tuscarora Lateral Project which will provide 55 MMcf/d of additional capacity on their systems in Steuben County, NY and Tioga County, PA.
- ANR received authorization to place into service its Sulphur Springs Compression Project which will provide 133.6 MMcf/d of capacity on ANR's portion of the Lebanon Lateral in Sulphur Springs, IN.
- Gas Transmission received authorization to place into service its Carty Lateral Project which will provide 175 MMcf/d of capacity to serve Portland General Electric's Carty Generating Station located in Morrow County, OR.
- Columbia Gas received authorization to place into service its East Side Expansion Project which will provide 312 MMcf/d of capacity and bi-directional flow for the transportation of Appalachian gas to Northeast and Mid-Atlantic markets.
- Southeast Supply Header received authorization to place into service its SESH Expansion Project which will provide additional mainline capacity between Delhi, LA and Coden, AL.
- Tennessee Gas received authorization to place into service its Station 245 Horsepower Replacement Project. To meet state emission standards, this project will place compressor facilities into service at Compressor Station 245 in Herkimer County, NY.
- Columbia Gas received authorization to place into service a portion of its Phase II facilities of its Line MB Expansion Project in Baltimore and Harford Counties, MD.
- Roadrunner Gas received authorization to site, construct, and operate a border crossing on the International Boundary between the U.S. and Mexico in El Paso, TX. The border crossing will provide 875 MMcf/d of export capacity to Mexico.
- Regency Field Services received authorization to own, operate, and maintain the existing Coyanosa Residue Line located in Pecos County, TX as an interstate pipeline. The Coyanosa Residue Line has a capacity of 100 MMcf/d and connects the Coyanosa processing plant to El Paso Natural Gas's pipeline.
- Columbia Gas and KO Transmission received authorization to abandon and replace 22.5 miles of deteriorated pipeline on Columbia Gas's E-System located in KY.
- WBI Energy received authorization to construct and operate facilities in ND which will provide 18.2 MMcf/d of capacity from receipt points in the Bakken area to an existing interconnection with Northern Border in McKenzie County, ND.
- Dominion Cove Point received authorization to construct and operate its St. Charles Transportation and Keys Energy Projects which will provide 132 MMcf/d and 107 MMcf/d of capacity respectively to CPV Maryland's and Keys Energy Centers's proposed 725 megawatt and 735 megawatt power plants in Charles and Prince Georges Counties, MD.
- Transco received authorization to construct and operate its Gulf Trace Expansion Project which will provide 1,200 MMcf/d of capacity on its system and a lateral to the Sabine Pass LNG export terminal in Cameron Parish, LA. Sabine Pass LNG also received authorization to construct and operate facilities necessary to receive the gas from Transco.
- Southern Natural received authorization to construct and operate its South Main Expansion Project which will provide 5 MMcf/d of capacity for one shipper to serve municipal gas systems located across Southern Natural's South Georgia Lateral in GA.
- The Commission vacated the certificate issued to Port Dolphin Pipeline to construct and operate pipeline facilities in Manatee County, FL. The project would have provided 1,200 MMcf/d of capacity from the Port Dolphin offshore LNG import terminal.
- The Commission vacated the certificate issued to Leader One Energy to construct and operate its Leader One Gas Storage facility in Adams County, CO. This storage facility would have provided 11 Bcf of working gas capacity.
- Hiland Partners Holding received authorization to operate its existing Bakken and Norse Residue Line Projects, located in Richland County, MT and Divide County, ND, respectively, as jurisdictional pipelines. The Bakken Residue Line provides 26 MMcf/d of capacity between the Bakken processing plant and Williston Basin Pipeline, and the Norse Residue Line provides 21 MMcf/d of capacity between the Norse processing plant and Williston Basin Pipeline.
- Tennessee requests authorization to construct and operate its Orion Project which would provide 135 MMcf/d of capacity on its existing Line 300 system in PA to serve markets in the Mid-Atlantic and New England regions.



Office of Energy Projects Energy Infrastructure Update *For October 2015*

- Texas Eastern requests authorization to construct and operate its Access South, Adair Southwest, and Lebanon Extension Projects which would provide 622 MMcf/d of bi-directional capacity on its existing mainline system from a receipt point in Uniontown, PA to delivery points in OH, KY, and MS.
- Algonquin and Maritimes request authorization to construct and operate its Atlantic Bridge Project which would provide a total of 239 MMcf/d of capacity for shippers from receipt points in Bergen County NJ and Ramapo, NY to markets in the Northeast.
- Mountain Valley requests authorization to construct and operate its Mountain Valley Pipeline Project which would provide 2,000 MMcf/d of capacity from northwest WV to southern VA.
- Transwestern requests authorization to construct and operate its Malaga Lateral Project which would provide 200 MMcf/d of capacity from a new cryogenic processing plant in Eddy County, NM.
- Tennessee requests authorization to construct and operate its Southwest Louisiana Supply Project which would provide 295 MMcf/d of capacity on its existing Line 800 system in LA to serve the Cameron LNG export facility in Cameron Parish, LA.
- Equitrans requests authorization to construct and operate its Equitrans Expansion Project which would provide 600 MMcf/d of north-south capacity on its system in PA and WV to meet markets in the Northeast, Mid-Atlantic, and Southeast regions.
- Northern Natural commenced the Commission's pre-filing process to construct and operate its Cedar Station Upgrade and Northern Lights 2017 Expansion Projects. The Cedar Station Upgrade Project would increase delivery pressures to meet contractual obligations along Northern Natural's Rosemount Junction to Minneapolis No. 1 line in Dakota County, MN. The Northern Lights 2017 Expansion Project would increase capacity on Northern Natural's MN and IA systems to serve market needs in MN and IA.
- WBI Energy withdrew its request filed under the Commission's pre-filing process to construct and operate its Wind Ridge Pipeline and Spiritwood Compressor Station Projects which would have provided 90 MMcf/d of capacity to a proposed fertilizer facility near Spiritwood, ND.
- Mississippi Hub requests that the Commission vacate the portion of the certificate issued to Mississippi Hub to construct and operate Cavern 4 at its storage facility located in Simpson and Jefferson Counties, MS. Cavern 4 would provide 7.5 Bcf of working gas capacity.

Natural Gas Activities in October 2015

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service	10			1,048.6	93.7	63,072
Certificated	10			2,484.2	54.1	79,180
Proposed	9			4,091.0	379.6	296,475
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



Office of Energy Projects Energy Infrastructure Update For October 2015

Natural Gas Activities through October 31, 2015 January through October 31, 2014

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service through October 31, 2014	25 27			6,279.4 6,130.4	288.2 303.7	190,997 223,106
Certificated through October 31, 2014	36 27			10,025.2 7,273.6	414.5 262.4	326,258 306,123
Storage						
Placed in Service through October 31, 2014	5 8	11.4 29.75	53 1,545			4,800 8,755
Certificated through October 31, 2014	2 3	2.7 1.2	0 0			0 2,500
LNG (Import & Export)						
Placed in Service through October 31, 2014	0 0	0 0	0 0			0 0
Certificated (Import/Export) through October 31, 2014	1 4	0 3.4	1,400 4,885			0 0

Source: Staff Database

Hydropower Highlights (nonfederal)

- GB Energy Park, LLC filed an original license application for the proposed 400 MW Gordon Butte Pumped Storage Hydroelectric Project No. 13642. The project would be located on the site of Gordon Butte in Meagher County, MT, near the town of Martinsdale. The project would operate as a closed-loop, pumped storage facility with water for the initial reservoir fill and replenishment supplied by an irrigation system connected to Cottonwood Creek, 4 miles east of the project.
- Swan Lake North Hydro, LLC filed an original license application for the proposed 393.3 MW Swan Lake North Pumped Storage Hydroelectric Project No. 13318. The project would be located in Klamath County, OR, about 11 miles northeast of the City of Klamath Falls. The project would operate as a closed-loop, pumped storage facility with water for the initial reservoir fill and replenishment supplied by groundwater wells.

Hydropower Project Activities in October 2015

Status	Conventional		Pumped Storage		Hydrokinetic		Total No. of Projects	Total Capacity (MW)
	No.	Capacity (MW)	No.	Capacity (MW)	No.	Capacity (MW)		
Filed								
License	0	0	2	793.300	0	0	2	793.300
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
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



Office of Energy Projects Energy Infrastructure Update For October 2015

Hydropower Project Activities Year to Date (through October 31, 2015)

Status	Conventional		Pumped Storage		Hydrokinetic		Total No. of Projects	Total Capacity (MW)
	No.	Capacity (MW)	No.	Capacity (MW)	No.	Capacity (MW)		
Filed								
License	2	5.600	3	1,033.300	0	0	5	1,038.900
10-MW Exemption	1	0.192	0	0	0	0	1	0.192
Capacity Amendment	1	0.600	0	0	0	0	1	0.600
Conduit Exemption	0	0	0	0	0	0	0	0
Issued								
License	5	17.918	0	0	0	0	5	17.918
10-MW Exemption	1	0.600	0	0	0	0	1	0.600
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	1	21.250	0	0	1	21.250
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

- AP North Lake Solar LP's 20 MW Diamond Valley Lake Solar Phase 1 Project in Riverside County, CA is online. The power generated is sold to Riverside Public Utilities under long-term contract.
- Sustainable Power Group LLC's 10 MW SEPV Palmdale East Solar Project in Los Angeles County, CA is online. The power generated is sold to Southern California Edison Co. under long-term contract.
- CB&I Environmental & Infrastructure Inc.'s 9.6 MW landfill gas-fired JED Renewable Gas to Energy Facility Project in Osceola County, FL is online. The power generated is sold to Orlando Utilities Commission under long-term contract.
- Buckeye Wind Energy LLC's 200 MW Buckeye Wind Energy Center Project in Ellis County, KS is online. The power generated is sold to Lincoln Electric System under long-term contract.



Office of Energy Projects Energy Infrastructure Update For October 2015

New Generation In-Service (New Build and Expansion)

Primary Fuel Type	October 2015		January – October 2015 Cumulative		January – October 2014 Cumulative	
	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)
Coal	0	0	1	3	1	30
Natural Gas	0	0	36	3,528	51	5,808
Nuclear	0	0	0	0	10	266
Oil	0	0	7	10	18	94
Water	0	0	19	149	13	210
Wind	1	200	35	4,178	37	2,030
Biomass	1	10	18	255	58	104
Geothermal Steam	0	0	1	45	7	36
Solar	4	33	173	1,407	258	1,928
Waste Heat	0	0	0	0	2	68
Other *	0	0	7	0	8	23
Total	6	243	297	9,575	463	10,597

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 Installed Operating Generating Capacity

	Installed Capacity (GW)	% of Total Capacity
Coal	308.16	26.44%
Natural Gas	499.42	42.85%
Nuclear	107.02	9.18%
Oil	45.02	3.86%
Water	100.06	8.59%
Wind	69.84	5.99%
Biomass	16.65	1.43%
Geothermal Steam	3.91	0.34%
Solar	13.40	1.15%
Waste Heat	1.15	0.10%
Other*	0.77	0.07%
Total	1,165.40	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.



Office of Energy Projects Energy Infrastructure Update For October 2015

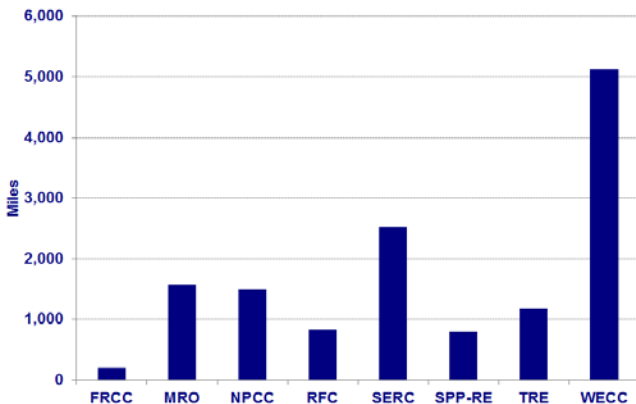
Electric Transmission Highlights

- In October 2015, Western Area Power Administration's Upper Great Plains Region, Basin Electric Power Cooperative and Heartland Consumers Power District transferred functional control of the integrated transmission system to Southwest Power Pool.

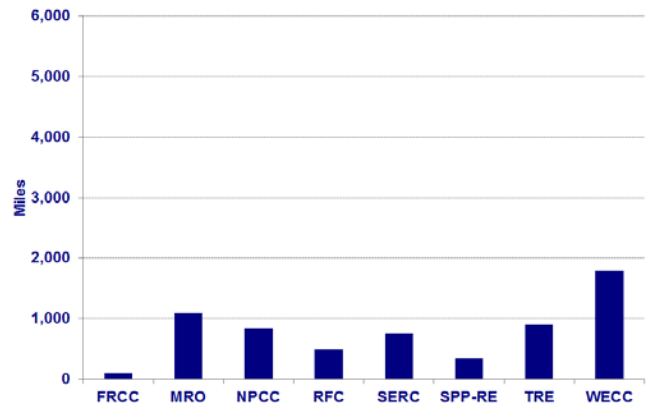
Voltage (kV)	Transmission Projects Completed				Proposed Transmission Projects In-Service by October 2017	
	October 2015	October 2014	January – October 2015 Cumulative	January – December 2014 Cumulative	High Probability of Completion	All
	Line Length (miles)					
≤230	0.0	56.0	163.4	1,218.5	2,831.5	5,487.0
345	0.0	127.2	808.7	1,659.8	2,538.8	4,928.6
500	0.0	0.0	256.0	70.0	950.9	3,292.9
Total U.S.	0.0	183.2	1,228.1	2,948.3	6,321.2	13,708.5

Sources: Data derived from Staff Database and U.S. Electric Transmission Projects ©2015 The C Three Group, LLC

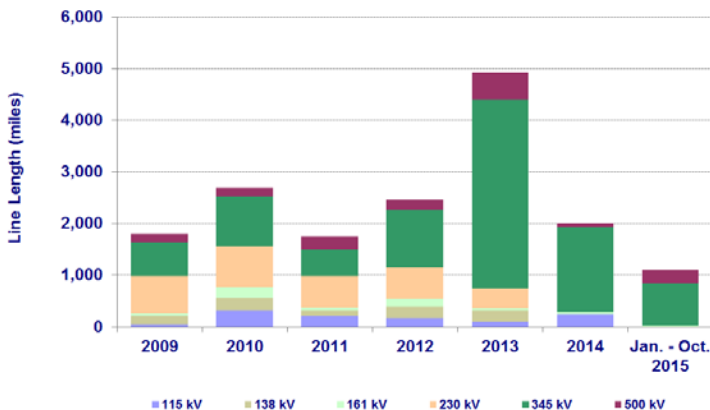
All Transmission Projects with a Proposed In-Service Date by October 2017



Transmission Projects with a High Probability of being completed by October 2017



New Transmission Projects by Voltage



Sources: Data derived from Staff Database and U.S. Electric Transmission Projects ©2015 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.