



Office of Energy Projects Energy Infrastructure Update *For April 2017*

Natural Gas Highlights

- High Point received authorization to abandon by sale its VTT Pipeline to its affiliate, Cayenne Pipeline, LLC, which will convert the pipeline to transport natural gas liquids (NGL).
- Northwest Pipeline requests authorization to remove, replace and lower approximately 1,700 feet of 30-inch pipeline in the north floodplain of the North Fork Nooksack River in Whatcom County, WA. The project also includes removal of approximately 1,550 feet of previously abandoned in place 26-inch pipeline that will become exposed during the replacement.
- Navitas requests authorization to expand its natural gas distribution facilities across the KY/TN border.
- Spire STL Pipeline LLC filed an amendment to its North County Extension application, proposing a route alternative to construct a new six-mile pipeline for the final segment. The total length of the new pipeline would increase from 59 to 65 miles. The project is located in Scott, Greene and Jersey Counties, IL and St. Charles and St. Louis Counties, MO.
- Texas Gas requests authorization to (i) abandon in place the Morgan City Compressor Station, which consists of one 9,100 horsepower (hp) gas-fired turbine compressor unit, a compressor building, yard and station piping, and appurtenant auxiliary facilities located in St. Mary Parish, LA; (ii) abandon in place one 9,100 hp gas-fired turbine compressor unit and its compressor building at the Lafayette (also known as Youngsville) Compressor Station, located in Lafayette Parish, LA; and (iii) relinquish the firm design capacity associated with the facilities.
- WBI Energy requests authorization to construct the Valley Expansion Project, that consists of (i) interconnect facilities with Viking Gas Transmission Company in Clay County, MN; (ii) approximately 37.3 miles of pipeline in Clay County, MN and Cass County, ND; (iii) approximately 3,000 horsepower electric compressor station in Cass County, ND; and (iv) replace two existing town border stations and construct a regulator station in Burleigh, Stutsman and Barnes Counties, ND.
- Transco requests authorization to amend its Atlantic Sunrise Project. Transco is proposing the Central Penn Line North (CPL North) Alternative 13 to modify the originally certificated route in Luzerne and Wyoming Counties, PA (a total of 6.48 miles) to address landowner and agency concerns.
- Northern requests authorization to construct a total of 13.8 miles of pipeline loop in two non-contiguous segments and appurtenant facilities in Boone and Polk Counties, IA, and abandon two short segments of pipeline in Polk County, IA (Des Moines B-line Loop Project).
- National Fuel requests authorization to convert two existing observation wells to injection/withdrawal wells, and to install two well lines within its Beech Hill Storage Field in Allegany County, NY. There will be no changes to physical storage field parameters.
- Southern Star requests authorization to expand both vertically and laterally the existing certificated boundary of its Webb Gas Storage Field located in Grant County, OK. The current operational parameters and capabilities of the Webb Gas Storage Field will remain the same and current certificated service levels to customers will not be affected.
- Alaska Gasline requests authorization to construct a LNG liquefaction and exporting terminal near Nikiski in southcentral AK. The Alaska LNG Project will include two storage tanks with a capacity of 10.3 Bcf, and sendout capacity of up to 2.7 Bcf. The project includes approximately 871 miles of pipeline from the production fields in northern AK.



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Natural Gas Activities in April 2017

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service	0			0	0	0
Certificated	1			0	0	0
Proposed	7			40	63.6	3,000
Storage						
Placed in Service	0	0.0	0.0			0
Certificated	0	0.0	0.0			0
Proposed	2	0.0	0.0			0
LNG (Import & Export)						
Placed in Service	0	0	0			0
Certificated (Import/Export)	0	0	0			0
Proposed (Export)	1	10.3	2,600			0

Source: Staff Database

Natural Gas Activities through April 30, 2017 January through April 30, 2016

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service through April 30, 2016	8 11			4,569.3 2,291.6	65.3 92.1	199,850 46,800
Certificated through April 30, 2016	15 24			9,627.9 7,797.9	1,253.2 863.8	618,584 687,125
Storage						
Placed in Service through April 30, 2016	0 0	0 0	0 0			0 0
Certificated through April 30, 2016	0 0	0 0	0 0			0 0
LNG (Import & Export)						
Placed in Service through April 30, 2016	0 0	0 0	570 0			0 0
Certificated (Import/Export) through April 30, 2016	0 1	0 6.8	0 1,080			0 0

Source: Staff Database



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Hydropower Highlights (nonfederal)

- The City of Seattle was issued an order amending license to raise the capacity of its Tolt River South Fork Project No. 2959 from 16.70 MW to 17.92 MW. The project is located on the South Fork Tolt River in King County, WA.
- Northern States Power Company filed an application to raise the capacity of its White River Project No. 2444 from 1.0 MW to 1.2 MW. The project is located on the White River in Ashland County, WI.
- The University of Notre Dame filed an application to raise the capacity of its South Bend Project No. 7569 from 1.83 MW to 2.50 MW. The project is located on the St. Joseph River in St. Joseph County, IN.

Hydropower Project Activities in April 2017

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	0	0	0	0	0	0
10-MW Exemption	0	0	0	0	0	0	0	0
Capacity Amendment	2	0.870	0	0	0	0	2	0.870
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	1	1.220	0	0	0	0	1	1.220
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 April 30, 2017)

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	2	0.870	0	0	0	0	2	0.870
Conduit Exemption	0	0	0	0	0	0	0	0
Issued								
License	4	77.900	0	0	0	0	4	77.900
10-MW Exemption	1	0.360	0	0	0	0	1	0.360
Capacity Amendment	2	4.220	0	0	0	0	2	4.220
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



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Electric Generation Highlights

- Tennessee Valley Authority's 1,100 MW natural gas-fired Paradise Plant expansion in Muhlenberg County, KY is online.
- Interstate Power & Light Co.'s 657 MW natural gas-fired IP&L Co Marshalltown Combined Cycle in Marshall County, IA is online.
- Alpaca Energy LLC's 21 MW natural gas-fired Alpaca Energy Project in Bradford County, PA is online.
- Milan Energy LLC's 21 MW natural gas-fired Milan Project in Bradford County, PA is online.
- University of Texas Medical Branch at Galveston's 15 MW natural gas-fired UTMB at Galveston Project in Galveston County, TX is online.
- Old Settler Wind LLC's 150 MW Cotton Plains Wind Phase 2 Expansion Project in Floyd County, TX is online.
- Lindahl Wind Project LLC's 150 MW Lindahl Wind Project in Williams County, ND is online. Lindahl has a long-term power purchase agreement with Basin Electric Power Cooperative.
- Tyler Bluff Wind Project LLC's 126 MW Tyler Bluff Wind Project in Cooke County, TX is online.
- East Pecos Solar LLC's 120 MW East Pecos Solar Project in Pecos County, TX is online.
- Solaire Homan 1 Inc.'s 50 MW Solaire Holman 1 Project in Brewster County, TX is online.
- NRG Solar Blythe II LLC's 21 MW NRG Solar Blythe II LLC Project in Riverside County, CA is online.
- Westside Solar LLC's 20 MW Westside Solar Energy Center in Fresno County, CA is online.
- Phantom Solar LLC's 15 MW Fort Phantom Solar Expansion Project in Jones County, TX is online.
- Alabama Power Co.'s 10 MW Fort Rucker Solar Project in Dale County, AL is online.
- Kennedy Solar LLC's 5 MW Kennedy Solar Farm Project in Duplin County, NC is online. The power generated is sold to Duke Energy Progress under long-term contract.
- Spencer Farm LLC's 5 MW Spener Farm LLC Project in Rowan County, NC is online.
- Spring Valley Farm 2 LLC's 5 MW Spring Valley Farm 2 Project in Vance County, NC is online. The power generated is sold to Duke Energy Carolinas under long-term contract.
- St Pauls Solar 1 LLC's 5 MW St Pauls 1 Project in Robeson 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	April 2017		January – April 2017 Cumulative		January – April 2016 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	14	1,814	36	4,055	33	3,132
Nuclear	0	0	1	102	0	0
Oil	0	0	0	0	1	2
Water	0	0	0	0	25	268
Wind	4	428	31	3,268	20	1,486
Biomass	0	0	3	79	18	47
Geothermal Steam	0	0	0	0	0	0
Solar	16	268	120	1,602	129	1,617
Waste Heat	0	0	0	0	0	0
Other *	3	0	11	1	4	21
Total	37	2,510	202	9,107	230	6,573

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.



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Total Available Installed Generating Capacity

	Installed Capacity (GW)	% of Total Capacity
Coal	284.34	24.00%
Natural Gas	513.95	43.38%
Nuclear	106.89	9.02%
Oil	44.24	3.73%
Water	100.73	8.50%
Wind	85.32	7.20%
Biomass	16.82	1.42%
Geothermal Steam	3.90	0.33%
Solar	26.69	2.27%
Waste Heat	1.04	0.09%
Other*	0.75	0.06%
Total	1,184.67	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.

Electric Transmission Highlights

- Southwestern Public Service has started construction on the 47 mile, 345 kV Hobbs – Kiowa Transmission Project. The \$59.8 million Hobbs – Kiowa Transmission Project is part of the Hobbs - China Draw Transmission Project in NM. The project is expected to be completed in 2018.

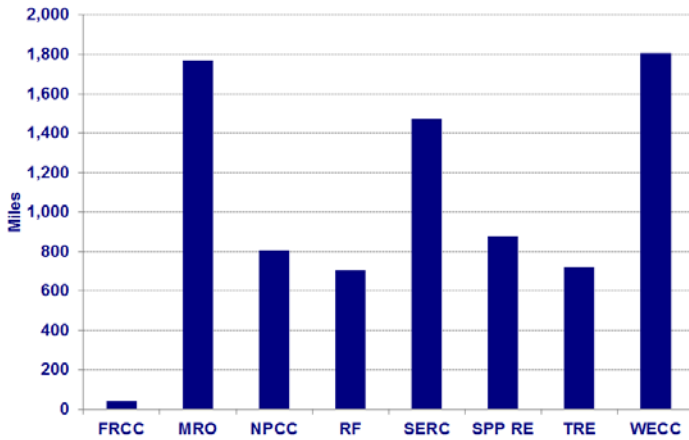
Voltage (kV)	Transmission Projects Completed				Proposed Transmission Projects In-Service by April 2019	
	April 2017	April 2016	January – April 2017 Cumulative	January – December 2016 Cumulative	High Probability of Completion	All
	Line Length (miles)					
≤230	0.0	62.4	38.1	479.2	2,321.5	3,883.6
345	0.0	11.2	0.0	508.9	2,331.9	3,558.3
≥500	0.0	0.0	0.0	85.0	273.4	750.4
Total U.S.	0.0	73.6	38.1	1,073.1	4,926.8	8,192.3

Sources: Data derived from Staff Database and U.S. Electric Transmission Projects ©2017 The C Three Group, LLC.

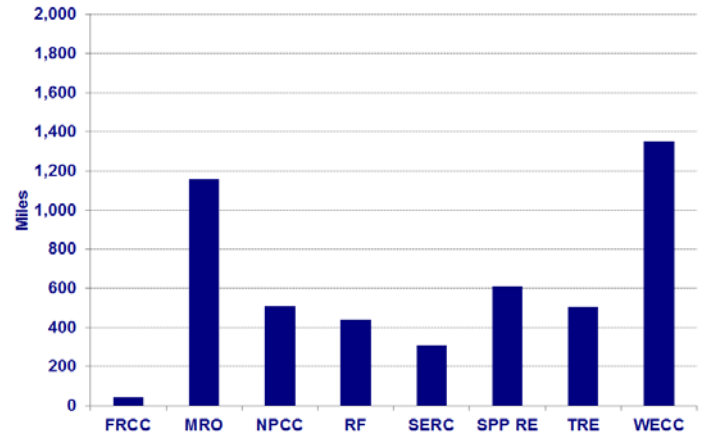


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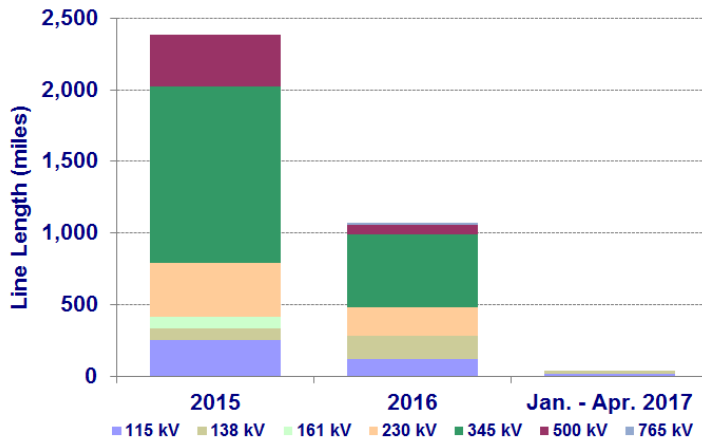
All Transmission Projects with a Proposed In-Service Date by April 2019



Transmission Projects with a High Probability of being completed by April 2019



New Transmission Projects by Voltage



Sources: Data derived from Staff Database and U.S. Electric Transmission Projects ©2017 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.