



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

Natural Gas Highlights

- Columbia Gas placed into service its Line 138 Abandonment and Lateral Construction Project in Somerset County, PA.
- Columbia Gulf placed into service its Line WB2VA Integrity Project in Hardy County, WV and Shenandoah, Page, Rockingham, and Greene Counties, VA.
- Tennessee Gas placed into service its Susquehanna West Project, which includes 8.1 miles of pipeline from Susquehanna to Potter Counties, PA.
- Energy Transfer placed into service certain Phase 1A facilities for its Rover Pipeline, including the Cadiz Lateral, Supply Connector Line A, Mainline A, and four related meter station from Harrison to Defiance Counties, OH.
- Transco received authorization to abandon offshore gathering laterals extending From Brazos Block A-133A to Brazos Block 538 in Offshore TX.
- Dominion Carolina received authorization to abandon in place its 60 mile Line A, in York, Chester, Lancaster, and Kershaw Counties, SC.
- Northern Natural received authorization to construct and operate its Cedar Station Upgrade Project, which will increase pressure to Northern States Power Company's proposed Black Dog Generating Station in Eagan, MN.
- NEXUS Gas received authorization to construct and operate its NEXUS Pipeline Project, which will provide 1,500 MMcf/d of capacity from the Appalachian Basin to markets in northern OH and southeastern MI.
- Texas Eastern received authorization to construct and operate its Texas Eastern Appalachian Lease Project, which will provide 950 MMcf/d of transportation capacity from the Appalachian Basin to markets in the Midwest via a lease to NEXUS Gas Transmission.
- DTE Gas received authorization to enter into a capacity lease agreement with NEXUS, which will allow DTE to provide 1,352 MMcf/d of firm service in MI.
- Vector received authorization to abandon by lease to NEXUS sufficient capacity to provide 465 MMcf/d of firm transportation in two pipeline segments near Milford and Belle River, MI.
- Transco requests authorization to construct its Rivervale South to Market Project, to transport an additional 190 MMcf/d from Bergen to Hudson counties, NJ.
- Columbia Gas received authorization to construct and operate one new well at its Pavonia Storage Field in Ashland and Richland Counties, OH.
- Ryckman Creek received authorization to proceed with the Uinta County Storage Project, which includes converting and reclassifying wells at its natural gas storage field in Uinta County, WY.
- Texas Gas requests authorization to abandon certain natural gas pipeline assets, ancillary auxiliary facilities and appurtenances located in Terrebonne Parish, Louisiana and in Louisiana State waters.
- Florida Gas requests authorization to abandon the unused 6.7 miles, 8-inch Rinker Lateral and related facilities that supply the Rinker Portland Cement Corp. in Miami-Dade County, FL.
- Ohio River Systems requests a limited certificate to provide jurisdictional transportation service on its gathering facilities in order to deliver up to 150,000 MMBtu/d of firm transportation via displacement to Rover Pipeline at ORS's interconnection with REX in Powhatan Point Township, OH. It also seeks a determination that this will not affect the non-jurisdictional status of the rest of its system.
- Columbia Gas requests authorization to abandon its Line H-107, along with associated appurtenances in Hocking County, OH.
- NGPL requests authorization to abandon certain compressor units at compressor stations 310 and 311 in Piatt County, IL, and to retain compressor units 1 and 7 in CS 310 and units 2 and 4 in CS 311 as backup units.
- Tallgrass requests authorization to abandon in place and convert to oil transportation its 47 mile Segment 55, from Converse to Platte Counties, WY.
- Kinetica Deepwater requests authorization to abandon by sale to Kinetica Energy Express its Patterson System facilities, consisting of 192 miles of pipeline and other facilities located in the Gulf of Mexico off the coast of LA.
- DCP Operating Company requests authorization to build an 8.4 miles of 20" pipeline in Weld County, CO.
- National Fuel request authorization to use Beech Hill Well 7451 to assess the reservoir connection between the Beech Hill Storage Field and the Shongo Pool, where Well 7451 is located, in Allegany County, NY.
- Columbia Gas requests authorization to install facilities and make other modifications at its Crawford Compressor Station in Fairfield County, OH, to increase counterstorage compression at its Crawford Storage Field.



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Natural Gas Activities in August 2017

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service	3			146.6	222.0	4,500
Certificated	4			2,640.2	269.1	158,200
Proposed	2			399.0	8.4	0
Storage						
Placed in Service	0	0.0	0.0			0
Certificated	1	0.0	10.0			0
Proposed	1	0.0	0.0			980
LNG (Import & Export)						
Placed in Service (Export)	0	0.0	0.0			0
Certificated (Import/Export)	1	0.0	93.0			0
Proposed (Import/Export)	0	0.0	0.0			0

Source: Staff Database

Natural Gas Activities through August 31, 2017 January through August 31, 2016

Status	No. of Projects	Storage Capacity (BCF)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service	17			7,440.9	485.0	330,594
through August 31, 2016	19			3,264.3	189.1	93,695
Certificated	23			12,568.1	1,540.6	781,664
through August 31, 2016	41			14,014.9	1,117.6	1,112,119
Storage						
Placed in Service	1	7.5	600.0			9,500
through August 31, 2016	0	0.0	0.0			0
Certificated	1	0.0	10.0			0
through August 31, 2016	0	0.0	0.0			0
LNG (Import & Export)						
Placed in Service (Export)	1	0.0	700.0			0
through August 31, 2016	1	0.0	700.0			0
Certificated (Import/Export)	1	0.0	93.0			0
through August 31, 2016	4	10.2	3,181.0			0

Source: Staff Database



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Hydropower Highlights (nonfederal)

- American Municipal Power, Inc. placed in service the 72.0 MW Smithland Powerhouse Project No. 6641. The project is located on the Ohio River in Livingston County, KY.
- FFP Missouri 3, LLC was issued an original license for the 12.0 MW Grays Landing Lock and Dam Hydroelectric Project No. 13763. The project is located on the Monongahela River in Greene and Fayette Counties, PA.
- City of Wadsworth, Ohio was issued an original license for the 50.0 MW Robert C. Byrd Hydroelectric Project No. 12796. The project is located on the Ohio River in Gallia County, OH, and Mason County, WV.
- Solia 8 Hydroelectric, LLC was issued an original license for the 5.0 MW Point Marion Lock and Dam Hydroelectric Project No. 13771. The project is located on the Monongahela River in Fayette County, PA.

Hydropower Project Activities in August 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	0	0	0	0	0	0	0	0
Conduit Exemption	0	0	0	0	0	0	0	0
Issued								
License	3	67.000	0	0	0	0	3	67.000
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	1	72.000	0	0	0	0	1	72.000
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 August 31, 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	3	1.770	0	0	0	0	3	1.770
Conduit Exemption	0	0	0	0	0	0	0	0
Issued								
License	12	247.900	0	0	0	0	3	247.900
10-MW Exemption	1	0.360	0	0	0	0	1	0.360
Capacity Amendment	3	5.120	0	0	0	0	3	5.120
Conduit Exemption	0	0	0	0	0	0	0	0



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Status	Conventional		Pumped Storage		Hydrokinetic		Total No. of Projects	Total Capacity (MW)
	No.	Capacity (MW)	No.	Capacity (MW)	No.	Capacity (MW)		
Placed in Service								
License	2	79.000	0	0	0	0	2	79.000
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

- Dermott Wind LLC's 253 MW Dermott Wind Project in Scurry County, TX is online. The power generated is sold to Amazon under long-term contract.
- Chapman Ranch Wind I, LLC's 250 MW Chapman Ranch Wind Project in Nueces County, TX is online.
- SunEdison's 158 MW Luminant Castle Gap Solar Project in Upton County, TX is online. The power generated is sold to Luminant under long-term contract.
- Gulf Coast Solar Center III LLC's 50 MW Gulf Coast Solar Center 3 Project in Escambia County, FL is online.
- Gulf Coast Solar Center II LLC's 40 MW Gulf Coast Solar Center 2 Project in Santa Rosa County, FL is online.
- Gulf Coast Solar Center I LLC's 30 MW Gulf Coast Solar Center 1 Project in Okaloosa County, FL is online. The power generated is sold to Gulf Power Co. under long-term contract.
- City of Worcester DPW's 7 MW Worcester Landfill Solar Project in Worcester County, MA is online.
- Solar Mission SunE LLC's 5 MW Brockton Landfill Solar Project in Plymouth County, MA is online. The power generated is sold to Onyx Renewable Partners LP under long-term contract.
- Marquette Board of Light & Power's 50 MW natural gas-fired Marquette Energy Center Project in Marquette County, MI is online.

New Generation In-Service (New Build and Expansion)

Primary Fuel Type	August 2017		January – August 2017 Cumulative		January – August 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	3	45
Natural Gas	5	150	67	10,553	79	7,647
Nuclear	0	0	1	102	2	20
Oil	0	0	8	36	14	25
Water	4	194	9	207	31	432
Wind	1	250	48	4,484	39	2,667
Biomass	0	0	23	180	33	70
Geothermal Steam	0	0	1	18	0	0
Solar	41	494	305	3,001	290	3,550
Waste Heat	0	0	1	220	2	23
Other *	1	0	19	1	10	21
Total	52	1,088	482	18,802	503	14,500

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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Total Available Installed Generating Capacity

	Installed Capacity (GW)	% of Total Capacity
Coal	283.72	23.83%
Natural Gas	516.78	43.41%
Nuclear	108.18	9.09%
Oil	43.69	3.67%
Water	100.83	8.47%
Wind	86.23	7.24%
Biomass	16.68	1.40%
Geothermal Steam	3.80	0.32%
Solar	28.36	2.38%
Waste Heat	1.26	0.11%
Other*	0.81	0.07%
Total	1,190.34	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.

Proposed Generation Additions and Retirements by September 2020

Primary Fuel Type	Additions		Retirements	
	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)
Coal	4	1,927	68	16,260
Natural Gas	383	93,290	97	9,371
Nuclear	4	3,243	7	6,408
Oil	31	747	27	550
Water	266	12,863	22	823
Wind	463	75,557	2	52
Biomass	79	936	8	15
Geothermal Steam	31	1,553	0	0
Solar	1,892	43,574	0	0
Waste Heat	9	236	0	0
Other *	41	363	0	0
Total	3,203	234,289	231	33,479

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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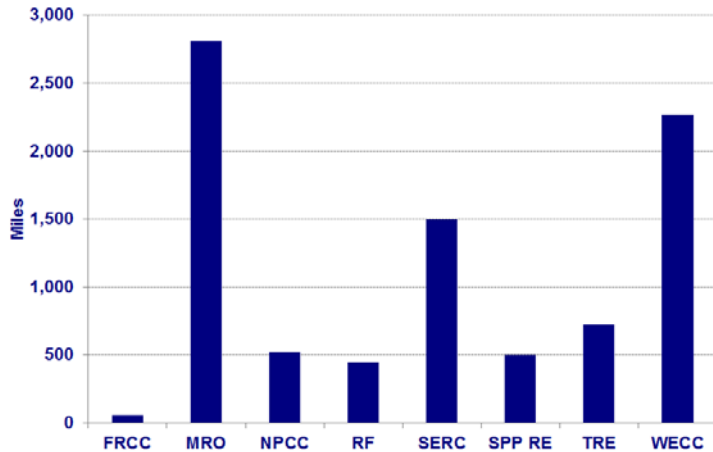
Electric Transmission Highlights

- Nebraska Public Power District has completed the 23.0 mile, 115 kV Stegall – Scottsbluff Transmission Project in NE.

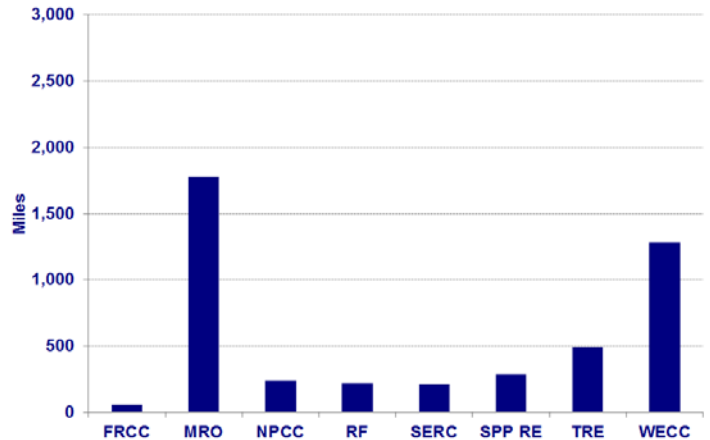
Voltage (kV)	Transmission Projects Completed				Proposed Transmission Projects In-Service by August 2019	
	August 2017	August 2016	January – August 2017 Cumulative	January – December 2016 Cumulative	High Probability of Completion	All
	Line Length (miles)					
≤230	23.0	212.0	131.6	732.8	1,908.7	3,794.1
345	0.0	0.0	57.0	965.9	2,246.5	3,932.4
500	0.0	0.0	0.0	85.0	421.4	1,102.4
Total U.S.	23.0	212.0	188.6	1,783.7	4,576.6	8,828.9

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

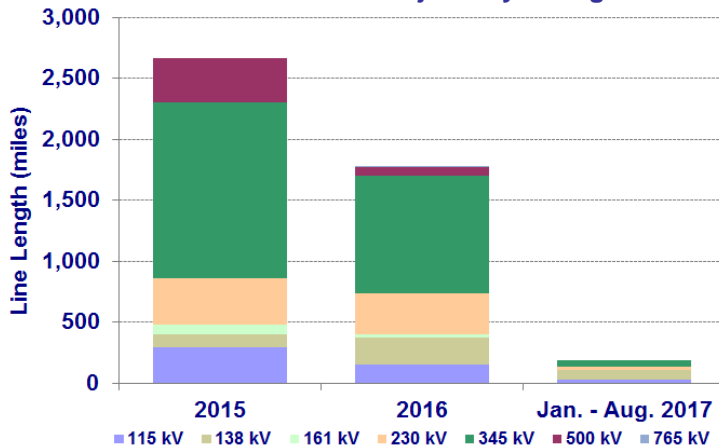
All Transmission Projects with a Proposed In-Service Date by August 2019



Transmission Projects with a High Probability of being completed by August 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.