



## Office of Energy Projects Energy Infrastructure Update *For August 2018*

### Natural Gas Highlights

- Columbia received authorization to place into service its Central Virginia Connector Project, which will provide 45 MMcf/d of additional capacity on its existing system in Goochland and Louisa Counties, VA.
- Kinder Morgan Louisiana Pipeline received authorization to place into service its Sabine Pass Expansion Project, which will provide 600 MMcf/d of capacity from existing pipeline interconnects in Evangeline and Acadia Parishes, LA to a new delivery point with Sabine Pass LNG in Cameron Parish, LA.
- Florida Southeast Connection received authorization to place into service its Okeechobee Lateral Project, a 5.2 mile pipeline that will supply a new power plant in Okeechobee County, FL.
- National Fuel received authorization for its Line KNYS Uprate Project, which will increase capacity on the line by 15 MMcf/d by increasing the maximum allowable operating pressure on a portion of the line in Cattaraugus County, NY and McKean County, PA.
- Equitrans received authorization to construct its H-320 pipeline project, consisting of 5-miles of new pipeline to deliver 85 MMcf/d of natural gas to the proposed ESC Harrison County Power Plant in Harrison County, WV.
- Spire STL received authorization to construct a new pipeline, which would provide 400 MMcf/d of capacity from an interconnection with Rockies Express in Scott County, IL, to St. Louis County, MO, to serve the St. Louis area.
- Steel Reef received Section 3 authorization to construct approximately 250 feet of natural gas pipeline border crossing facilities to export natural gas from Portal, ND into Saskatchewan, Canada.
- Florida Southeast received authorization to acquire, operate, and maintain approximately 38 miles of existing natural gas pipeline and related facilities located in Martin and Palm Beach Counties, FL, currently owned by Florida Power & Light Company and operated as non-jurisdictional facilities.
- Rover received authorization for its UGS-Crawford Meter Station Project, which consists of a new meter station and ancillary facilities on Rover's Burgettstown Lateral in Jefferson County, OH, which would allow it to receive up to 350 MMcf/d of natural gas from Utica Gas Services, LLC.
- Southern Natural Gas received authorization to abandon in place 6.5 miles of its West Point Line, and to abandon by removal a delivery meter, a regulator, and related appurtenances in Lowndes and Clay Counties, MS.
- Transco received authorization to construct its Rivervale South to Market Project, to transport an additional 190 MMcf/d of natural gas from Bergen to Hudson counties, NJ.
- Dominion Energy Carolina received authorization for its Bushy Park Extension Project, which includes a new gas delivery point in Berkeley County, SC, to supply an industrial customer currently supplied by the LDC.
- Midship received authorization to construct 233 miles of pipeline and three compressor stations to transport gas from the Stack and Scoop plays in Oklahoma to interconnects with Midcontinent Express, Gulf Crossing, and NGPL in Southeastern Oklahoma.
- Southern Star received authorization to construct 14.2 miles of non-contiguous segments of pipeline and abandon the equivalent segments in Oklahoma and Logan Counties, OK.
- Panhandle Eastern received authorization to decrease the Maximum Allowable Operating Pressure of a segment of its State Line Lateral in Johnson County, KS and Jackson County, MO in order to meet DOT safety regulations.
- Columbia Gas received authorization for its Line 5 Launcher/Receiver Project in Jefferson and Columbiana Counties, OH and Brooke County, WV, consisting of equipment to allow for in-line inspection of its Line 5 pipeline.
- ANR received authorization for its Winfield Storage Field Well Abandonments Project, which includes abandoning 20 injection/withdrawal wells and one observation well in Mecosta and Montcalm Counties, MI.
- Sendero Carlsbad Gateway requests authorization to construct approximately twenty-three miles of pipeline and appurtenant facilities in Eddy County, NM and Culberson County, TX. The new pipeline would transport up to 400 MMcf/d of natural gas from processing plants to an interconnect with the Agua Blanca Pipeline.
- Maritimes & Northeast requests authorization to reacquire the firm capacity on its mainline abandoned to Portland Natural Gas Transmission System, and to abandon to PNGTS a portion of its ownership interest in a compressor unit at the Westbrook Compressor in Cumberland County, ME.
- Panhandle requests authorization to abandon by sale to its affiliate, ETC Field Services<sup>1</sup>, the Deer Loop Lateral Facilities consisting 20.6 miles pipeline and appurtenances in Carson, Hutchinson and Moore Counties, TX.
- Texas Eastern requests authorization for its Rahway River Additional Pipe Replacement Project, which would replace an additional 400-foot segment of its Line 1 pipeline in Woodbridge, NJ.
- Coronado Midstream requests retroactive authorization for three pipelines in Andrew and Martin Counties, TX, which connect three natural gas processing plants Coronado owns to the Northern Natural and ONEOK systems.



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### Natural Gas Activities in August 2018

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
<b>Pipeline</b>						
Placed in Service	3			1,045	7	49,780
Certificated	8			2,564	343	128,900
Proposed	2			1,065	49	0
<b>Storage</b>						
Placed in Service	0	0	0			0
Certificated	0	0	0			0
Proposed	15	6,344	676			247,300
<b>LNG (Import &amp; Export)</b>						
Placed in Service (Export)	0	0	0			0
Certificated (Import/Export)	0	0	0			0
Proposed (Import/Export)	0	0	0			0

Source: Staff Database

### Natural Gas Activities through August 31, 2018 January through August 31, 2017

Status	No. of Projects	Storage Capacity (BCF)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
<b>Pipeline</b>						
Placed in Service through August 31, 2017	9 17			4,716.2 5,140.9	100.5 477.8	183,800 266,594
Certificated through August 31, 2017	39 22			8,428.1 12,378.1	639.6 1,540.0	281,095 781,664
<b>Storage</b>						
Placed in Service through August 31, 2017	0 1	0.0 7.5	0.0 600.0			0 9,500
Certificated through August 31, 2017	4 1	3,600.3 0.0	152.0 10.0			0 0
<b>LNG (Import &amp; Export)</b>						
Placed in Service (Export) through August 31, 2017	1 1	0.0 0.0	825.0 700.0			0 0
Certificated (Import/Export) through August 31, 2017	0 0	0.0 0.0	0.0 0.0			0 0

Source: Staff Database



## Office of Energy Projects Energy Infrastructure Update For August 2018

### Hydropower Highlights (nonfederal)

- Duke Energy Carolinas, LLC was issued an order increasing the capacity of its Bad Creek Pumped Storage Project No. 2740 from 1,065.0 to 1,400.0 MW. The project is located on Bad Creek in Oconee County, SC.

#### Hydropower Project Activities in August 2018

Status	Conventional		Pumped Storage		Hydrokinetic		Total No. of Projects	Total Capacity (MW)
	No.	Capacity (MW)	No.	Capacity (MW)	No.	Capacity (MW)		
<b>Filed</b>								
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
<b>Issued</b>								
License	0	0	0	0	0	0	0	0
10-MW Exemption	0	0	0	0	0	0	0	0
Capacity Amendment	0	0	1	335.000	0	0	1	335.000
Conduit Exemption	0	0	0	0	0	0	0	0
<b>Placed in Service</b>								
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

#### Hydropower Project Activities Year to Date (through August 31, 2018)

Status	Conventional		Pumped Storage		Hydrokinetic		Total No. of Projects	Total Capacity (MW)
	No.	Capacity (MW)	No.	Capacity (MW)	No.	Capacity (MW)		
<b>Filed</b>								
License	0	0	0	0	0	0	0	0
10-MW Exemption	0	0	0	0	0	0	0	0
Capacity Amendment	1	1.740	1	335.000	0	0	2	336.740
Conduit Exemption	0	0	0	0	0	0	0	0
<b>Issued</b>								
License	0	0	0	0	0	0	0	0
10-MW Exemption	0	0	0	0	0	0	0	0
Capacity Amendment	0	0	1	335.0000	0	0	1	335.000
Conduit Exemption	0	0	0	0	0	0	0	0
<b>Placed in Service</b>								
License	2	12.000	0	0	0	0	2	12.000
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



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### Electric Generation Highlights

- Moxie Freedom LLC's 529.0 MW natural gas-fired Moxie Freedom Project in Luzerne County, PA is online.
- NTE Energy LLC's 501.0 MW natural gas-fired Kings Mountain Energy Center in Cleveland County, NC is online. The power generated is sold to the Cities of Kings Mountain, Concord, Winterville and Black Creek under long-term contracts.
- Falls City NE Utility Dept.'s 9.0 MW natural gas-fired Falls City Expansion in Richardson County, NE is online.
- Arkwright Summit Wind Farm LLC's 78.0 MW Arkwright Summit Wind Farm in Chautauqua County, NY is online. The power generated is sold to Bloomberg LP under long-term contract.
- Delta Solar Power II LLC's 15.9 MW Delta Solar Power Project in Eaton County, MI is online. The power generated is sold to Lansing Board of Water & Light under long-term contract.
- OneEnergy Development LLC's 12.5 MW Wyeast Solar Project in Sherman County, OR is online. The power generated is sold to Portland General Electric Co. under long-term contract.
- NJR Clean Energy Ventures Corp's 10.0 MW Old Bridge Solar Farm in Middlesex, NJ is online.
- Delta Solar Power I LLC's 8.1 MW Delta Solar Power Project in Eaton County, MI is online. The power generated is sold to Lansing Board of Water & Light under long-term contract.
- New Energy Solar Ltd's 6.8 MW ESA Church Road Solar LLC in Johnston County, NC is online. The power generated is sold to Duke Energy Corp. under long-term contract.
- Salisbury Solar LLC's 6.3 MW Salisbury Solar Project in Rowan County, NC is online. The power generated is sold to Duke Energy Carolinas under long-term contract.
- Pacific Ethanol Inc's 5.0 MW Pacific Ethanol Solar Madera Array in Madera County, CA is online.
- Sadiebrook Solar LLC's 5.0 MW Sadiebrook Solar Project in Charleston County, SC is online.

#### New Generation In-Service (New Build and Expansion)

Primary Fuel Type	August 2018		January – August 2018 Cumulative		January – August 2017 Cumulative	
	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)
Coal	0	0	4	10	0	0
Natural Gas	5	1,840	71	12,128	78	11,035
Nuclear	0	0	3	30	1	102
Oil	0	0	11	18	16	50
Water	0	0	10	33	9	139
Wind	5	232	29	2,384	54	4,495
Biomass	0	0	11	66	24	210
Geothermal Steam	0	0	2	21	1	18
Solar	25	101	308	2,725	367	3,222
Waste Heat	0	0	2	80	1	220
Other *	3	0	17	5	23	1
<b>Total</b>	<b>38</b>	<b>2,173</b>	<b>468</b>	<b>17,500</b>	<b>574</b>	<b>19,492</b>

Sources: Data derived from Velocity Suite, ABB Inc. and The C Three Group LLC. 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	268.11	22.56%
Natural Gas	522.62	43.98%
Nuclear	107.66	9.06%
Oil	41.67	3.51%
Water	100.48	8.46%
Wind	91.31	7.68%
Biomass	16.26	1.37%
Geothermal Steam	3.79	0.32%
Solar	34.33	2.89%
Waste Heat	1.38	0.12%
Other*	0.78	0.07%
<b>Total</b>	<b>1,188.38</b>	<b>100.00%</b>

Sources: Data derived from Velocity Suite, ABB Inc. and The C Three Group LLC. The data may be subject to update.

### Proposed Generation Additions and Retirements by September 2021

Primary Fuel Type	Additions		Retirements	
	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)
Coal	1	17	73	19,196
Natural Gas	282	76,502	111	11,830
Nuclear	7	7,721	8	8,040
Oil	15	725	22	166
Water	252	14,896	19	633
Wind	493	89,604	1	50
Biomass	57	593	21	110
Geothermal Steam	22	1,076	0	0
Solar	2,088	61,635	5	2
Waste Heat	6	96	0	0
Other *	89	373	0	0
<b>Total</b>	<b>3,312</b>	<b>253,238</b>	<b>260</b>	<b>40,027</b>

Sources: Data derived from Velocity Suite, ABB Inc. and The C Three Group LLC. 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 August 2018

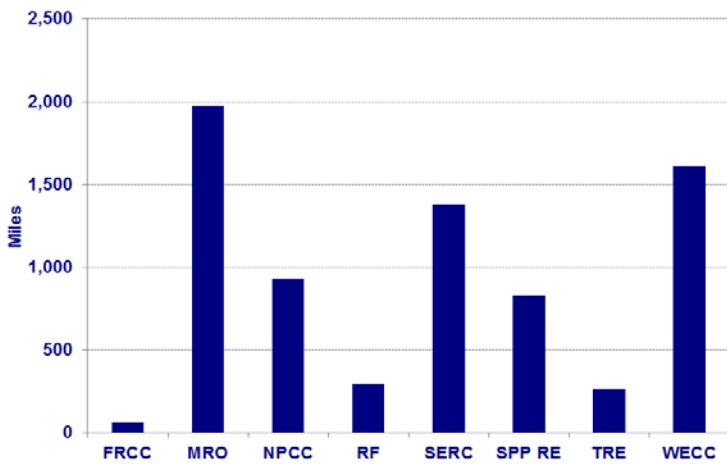
## Electric Transmission Highlights

- Xcel Energy has completed the 83.0 mile, 345 kV Rush Creek Transmission Project in CO.
- CenterPoint Energy has completed the 5.0 mile, 138 kV Oyster Creek Project in TX.

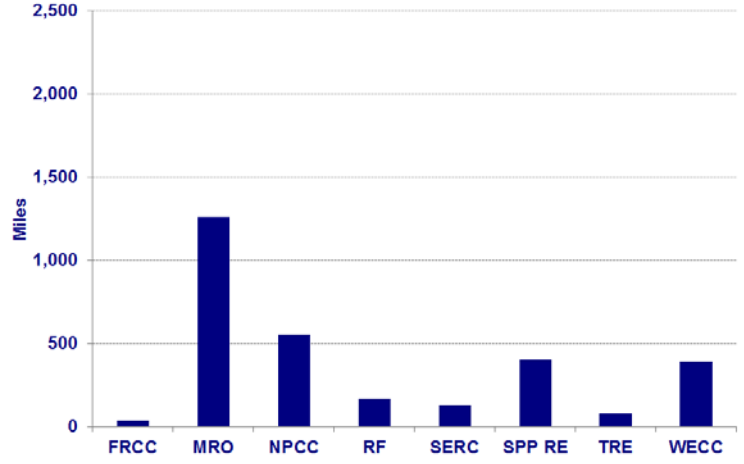
Voltage (kV)	Transmission Projects Completed				Proposed Transmission Projects In-Service by September 2020	
	August 2018	August 2017	January – August 2018 Cumulative	January – December 2017 Cumulative	High Probability of Completion	All
	Line Length (miles)					
≤230	5.0	27.0	223.3	329.3	749.0	2,079.1
345	83.0	65.0	413.2	218.5	1,882.6	4,030.6
500	0.0	0.0	69.4	0.0	386.0	1,242.4
<b>Total U.S.</b>	<b>88.0</b>	<b>92.0</b>	<b>705.9</b>	<b>547.8</b>	<b>3,017.6</b>	<b>7,352.1</b>

Sources: Data derived from Staff Database and U.S. Electric Transmission Projects ©2018 The C Three Group, LLC.

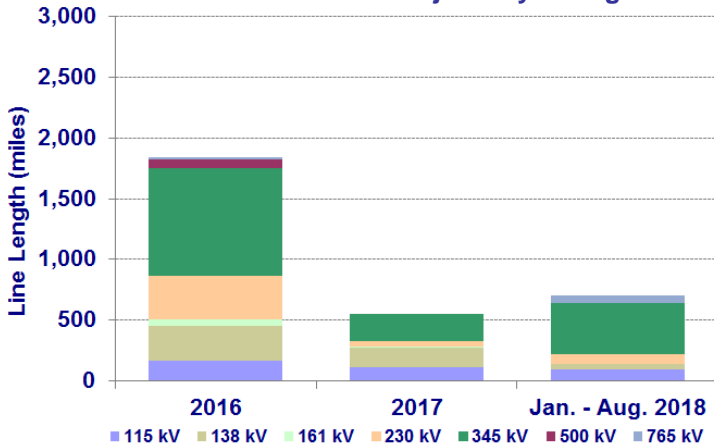
**All Transmission Projects with a Proposed In-Service Date by September 2020**



**Transmission Projects with a High Probability of being completed by September 2020**



**New Transmission Projects by Voltage**



Sources: Data derived from Staff Database and U.S. Electric Transmission Projects ©2018 The C Three Group, LLC.

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