



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

### Natural Gas Highlights

- Elba Express placed into service its EEC Expansion Project which will provide 769 MMcf/d of north-to-south capacity on its existing system to serve the proposed LNG export facility on Elba Island, GA.
- Tennessee received authorization to place into service Compressor Stations 3A and 11A of its Lone Star Project, which will provide 300 MMcf/d of capacity from a receipt point with Gulf South on Tennessee's 500 Line in Jasper County, MS to a delivery point with Corpus Christi Pipeline on Tennessee's 100 Line in San Patricio County, TX.
- Texas Eastern received authorization to place into service its South Texas Expansion Project, including the acquisition by lease of the Pomelo Connector. The project will provide 400 MMcf/d of bi-directional capacity on its existing Line 16 system in TX.
- Transco received authorization to place into service certain facilities for its Gulf Connector Expansion Project, which when fully operational will provide 475 MMcf/d of bi-directional capacity from Transco's Station 65 Zone 3 Pool in St. Helena Parish, LA to new delivery points in Wharton and San Patricio Counties, TX.
- PNGTS received authorization for Phase II of its PXP Project to increase by 11 MMcf/d the certificated capacity on the system it jointly owns with Maritimes & Northeast, from Westbrook, ME to Dracut, MA, and for a lease agreement between PNGTS and MN&E.
- M&NE received authorization to abandon by lease 7.2 MMcf/d of firm capacity to PNGTS on the mainline pipeline that Maritimes and PNGTS own jointly. This Application is related Phase II of the PNGTS PXP Project.
- Texas Eastern received authorization for its Lambertville East Expansion Project, including replacing two existing natural gas-fired turbine compressor units with two new gas-fired turbine compressor units and installation of related facilities in order to provide 60 MMcf/d of new capacity to supply two LDCs in NJ.
- Florida Gas requests authorization for its East Louisiana Project, including construction and modifications at its Compressor Station 10 in Perry County, MS and Mainline Valve 9-1 in Washington Parish, LA, in order to deliver 75 MMcf/d of firm capacity to Entergy Louisiana.
- Algonquin requests authorization for its Yorktown M&R Replacement and Reliability project, which consists of upgrading the facilities at its regulating station in Westchester County, NY, which would increase capacity in the system by 21.7 MMcf/d.
- Mountain Valley requests authorization for its Southgate Project, including 73 miles of pipeline, a new compressor station, and other appurtenances to provide 375 MMcf/d of firm transportation capacity from Pittsylvania County, VA to Alamance County, NC.
- Atlanta Gas Light requests a service area determination within which it may continue to operate as a local gas utility, subject to the regulatory oversight of the Georgia PSC, following the discovery that two of its customers in Walker County, GA have meters located across the border in Tennessee.
- Chattanooga Gas requests a service area determination that encompasses its entire Tennessee LDC certificated area, as well as across the border into Walker and Catoosa County, GA, where the facilities serving one of its customers is located.
- Midship requests an order amending its Certificate to authorize a 0.8-mile reroute in Bryan County, OK in order to avoid a sensitive feature and address stakeholder concerns.
- Southern Star requests authorization for its Blackwell Redundant Compression Project, which includes one new 4,760 HP compressor unit and other appurtenant and ancillary facilities in Kay County, OK.
- Greylock Pipeline request authorization to transfer ownership for corporate re-structuring purposes to its subsidiary, Greylock Shawville Pipeline, in Clearfield and Elk Counties, PA.
- Columbia Gas requests authorization to construct and operate three new directional wells and related pipeline and appurtenances at its Artemas A Storage Field in Bedford County, PA.
- Magnolia LNG requests authorization to increase its previously authorized total LNG production capacity from 1.08 Bcf/d to 1.18 Bcf/d
- Golden Pass LNG and Golden Pass Products request the transfer of authorization to construct and operate their authorized LNG terminal near Sabine Pass, TX from Golden Pass Products to Golden Pass LNG.



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

### Natural Gas Activities in November 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	4			1,944	14	205165
Certificated	2			71	0	0
Proposed	3			472	73	33675
<b>Storage</b>						
Placed in Service	0	0	0			0
Certificated	0	0	0			0
Proposed	0	0	79			0
<b>LNG (Import &amp; Export)</b>						
Placed in Service (Export)	0	0	0			0
Certificated (Import/Export)	0	0	0			0
Proposed (Import/Export)	1	0.105	0			0

Source: Staff Database

### Natural Gas Activities through November 30, 2018 January through November 30, 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	21			12,435.8	629.0	942,778
through November 30, 2017	28			6,661	564	411,069
Certificated	46			9,115.9	643.0	299,995
through November 30, 2017	44			26,686	2,569	1,774,505
<b>Storage</b>						
Placed in Service	0	0.0	0.0			0
through November 30, 2017	1	8	600			9,500
Certificated	4	3,600.3	152.0			0
through November 30, 2017	2	0	10			980
<b>LNG (Import &amp; Export)</b>						
Placed in Service (Export)	1	0.0	825.0			0
through November 30, 2017	3	0	1,493			0
Certificated (Import/Export)	1	0.0	20.0			0
through November 30, 2017	0	0	0			0

Source: Staff Database



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

### Hydropower Highlights (nonfederal)

There were no hydropower activities this month.

**Hydropower Project Activities Year to Date (through November 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	2	0.927	0	0	0	0	2	0.927
Capacity Amendment	2	3.840	1	335.000	0	0	3	338.840
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	1	1.740	1	335.000	0	0	2	336.740
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

### Electric Generation Highlights

- Duke Energy Florida's 820.1 MW natural gas-fired expansion of Crystal River Plant in Citrus County, FL is online.
- Friendswood Energy Genco's 121.0 MW natural gas-fired Friendswood Energy Generation in Harris County, TX is online.
- Stillwater Wind LLC's 79.8 MW Stillwater Wind Project in Stillwater County, MT is online. The power generated is sold to NorthWestern Energy under long-term contract.
- Runway Farm LLC's 5.0 MW solar powered Runway Project in Warren County, NC is online. The power generated is sold to Duke Energy Progress under long-term contract.



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

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

Primary Fuel Type	November 2018		January – November 2018 Cumulative		January – November 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	2	941	91	16,687	89	11,426
Nuclear	0	0	4	185	1	102
Oil	0	0	11	18	31	82
Water	0	0	10	33	14	221
Wind	2	82	38	3,772	68	6,170
Biomass	0	0	11	66	27	272
Geothermal Steam	0	0	2	21	1	18
Solar	1	5	381	3,449	567	4,336
Waste Heat	0	0	3	130	1	220
Other *	0	0	25	5	25	1
<b>Total</b>	<b>5</b>	<b>1,028</b>	<b>580</b>	<b>24,376</b>	<b>824</b>	<b>22,848</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.

### Total Available Installed Generating Capacity

	Installed Capacity (GW)	% of Total Capacity
Coal	268.05	22.45%
Natural Gas	525.96	44.05%
Nuclear	107.81	9.03%
Oil	41.67	3.49%
Water	100.49	8.42%
Wind	92.74	7.77%
Biomass	16.16	1.35%
Geothermal Steam	3.79	0.32%
Solar	35.05	2.94%
Waste Heat	1.43	0.12%
Other*	0.78	0.07%
<b>Total</b>	<b>1,193.94</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.



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

### Proposed Generation Additions and Retirements by December 2021

Primary Fuel Type	Additions		Retirements	
	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)
Coal	1	17	63	16,122
Natural Gas	263	67,962	109	11,081
Nuclear	9	9,121	9	9,052
Oil	15	725	23	2,087
Water	244	14,810	19	633
Wind	505	90,318	1	50
Biomass	54	580	26	182
Geothermal Steam	21	1,005	0	0
Solar	2,236	64,068	5	2
Waste Heat	5	46	0	0
Other *	87	433	0	0
<b>Total</b>	<b>3,440</b>	<b>249,085</b>	<b>255</b>	<b>39,209</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.

### Electric Transmission Highlights

- ITC Midwest has completed the 22.0 mile, 345 kV Huntley (formerly Winnebago) – Ledyard (Winco) Transmission Project. The interstate project connects MN and IA.
- Duke Energy Indiana has completed the 1.5 mile, 115 kV State Line – Sugar Creek Transmission Project in IN

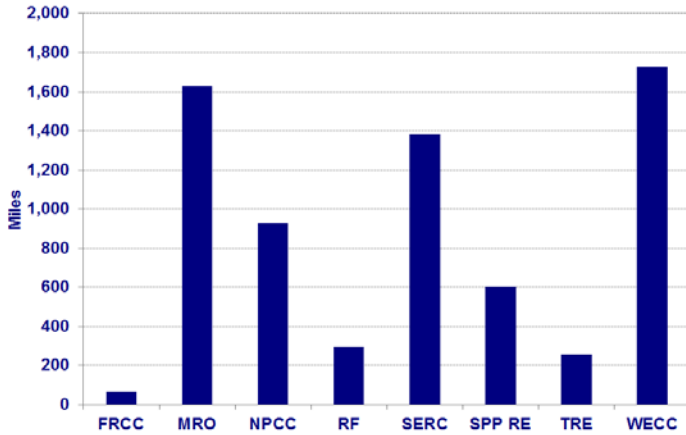
Voltage (kV)	Transmission Projects Completed				Proposed Transmission Projects In-Service by December 2020	
	November 2018	November 2017	January – November 2018 Cumulative	January – November 2017 Cumulative	High Probability of Completion	All
	Line Length (miles)					
≤230	0.0	0.0	305.7	329.3	745.3	2,011.1
345	23.5	63.0	550.7	363.1	1,422.8	3,505.8
500	0.0	0.0	69.4	0.0	516.0	1,362.4
<b>Total U.S.</b>	<b>23.5</b>	<b>63.0</b>	<b>925.8</b>	<b>692.4</b>	<b>2,684.1</b>	<b>6,879.3</b>

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

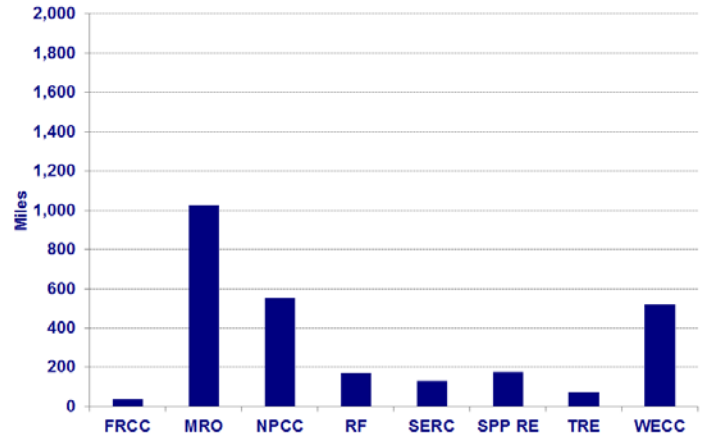


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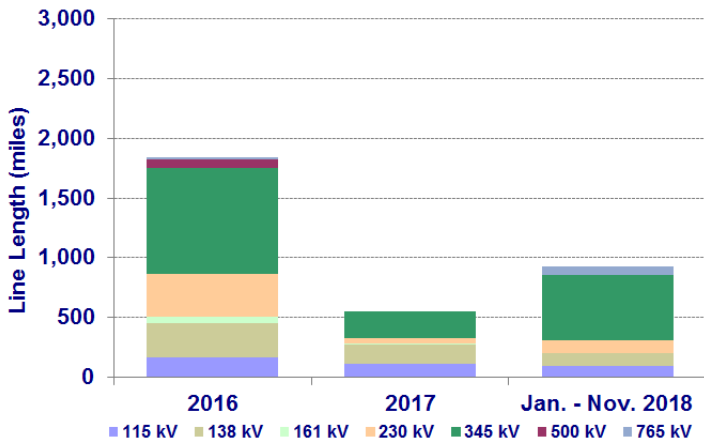
**All Transmission Projects with a Proposed**



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



**New Transmission Projects by Voltage**



**Sources:** Data derived from Staff Database and U.S. Electric Transmission Projects ©2018 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.