



## Office of Energy Projects Energy Infrastructure Update For February 2019

### Natural Gas Highlights

- Valley Crossing Pipeline received authorization to place in service its Border Crossing Project, which will provide up to 2,600 MMcf/d of export capacity from Texas state waters in the Gulf of Mexico to the international boundary between the U.S. and Mexico.
- Columbia Gulf received authorization to place in service its Gulf Xpress Project, which will provide 860 MMcf/d of capacity from its interconnect with Columbia Gas in Leach, KY to delivery points in MS and LA.
- Coronado Midstream received retroactive authorization for three existing pipelines in Andrew and Martin Counties, TX, which connect three natural gas processing plants it owns to the Northern Natural and ONEOK systems.
- Kern River received authorization to construct the Eaglecrest Meter Station, which would deliver 40 MMcf/d of natural gas to E&B Natural Resources Management Corporation in Kern County, CA.
- PNGTS received authorization for Phase III of its Portland Xpress Project, including a new 6,300 HP compressor at its Eliot Compressor Station in York County, ME, modifications and additions at the Westbrook Compressor Station in Cumberland County, ME and the Dracut meter and receiving Station in Middlesex County, MA, and related activities.
- Maritimes & Northeast received authorization to reacquire firm capacity on its mainline which it had abandoned to PNGTS, and to abandon to PNGTS a portion of its ownership interest in a compressor unit at the Westbrook Compressor in Cumberland County, ME.
- Northern Natural received authorization for its Northern Lights 2019 & Rochester Projects. These two separate projects involve constructing new compression, pipeline, and other facilities, uprating the maximum allowable operating pressure on a segment of pipeline, and abandoning short pipeline segments in various counties in MN.
- El Paso received authorization to construct the Kiwanis Meter Station, which would allow it to deliver up to 2,500 Mcf/d of firm transportation capacity to the United Dairyman milk processing plant in Maricopa County, AZ.
- Greylock Pipeline received authorization to acquire 3-miles of pipeline owned by its affiliate, NRG ECA Pipeline. The acquisition will allow Greylock to own and operate its interstate system from its receipt point directly to the NRG REMA Shawville power plant in Clearfield County, PA.
- D'Lo Gas Storage received authorization to amend its DGS Gas Storage Project in Simpson and Rankin Counties, MS, including changes to the facility's layout that would reduce surface impacts by 14.1 acres, and the addition of a new Firm Wheeling Service to its Rate Schedule.
- Columbia Gas received authorization to construct and operate three new directional wells and related pipeline and appurtenances at its Artemas A Storage Field in Bedford County, PA.
- Equitrans received authorization to abandon injection and withdrawal Well 3675 at its Hunters Cave Storage Field in Greene County, PA.
- Venture Global Calcasieu Pass received authorization to construct and operate a 1.4 Bcf/d LNG export facility in Cameron Parish, LA, as well as for the 23-mile 2.1 Bcf/d Transcameron Pipeline from the Grand Chenier Station in Cameron Parish to the proposed export facility.
- PennEast Pipeline requests an amendment to its certificate to permit certain pipeline realignments and workspace changes in Luzerne, Carbon, Monroe, and Northampton Counties, PA. These changes will result in a net decrease of project miles and acreage.
- Spire Storage requests authorization for its Rock Pipeline Project, which consists of 10.1 miles of dual pipeline and other equipment in Uinta County, WY, that would provide it access to a new interconnect with Kern River pipeline.
- Guthrie Natural Gas requests determination of a service area within which it may, without further Commission authorization, enlarge or expand its natural gas distribution facilities at the Kentucky/Tennessee border.
- WBI Energy received authorization for its Demicks Lake - Cherry Creek Pipeline Project, including 12.2 miles of new pipeline, to provide 176 MMcf/d of new transportation capacity in McKenzie County, ND.
- ANR requests authorization to replace segments of its existing 22-inch Line 301 mainline, its 24-inch Line 1-301, and its 30-inch Line 2-301, all located in Kane County, IL.
- NGPL requests authorization for its Gulf Coast Southbound Projects, which would add new compression at compressor stations CS 300, 301, and 304 located in Victoria, Wharton, and Harrison Counties, TX respectively, in order to provide up to 300 MMcf/d of transportation capacity to serve the Corpus Christi Liquefaction facility.
- Tennessee Gas requests authorization to complete construction and commence operation of a delivery point in Middlesex County, MA, to bypass National Grid and provide direct service to the Hanscoms Air Force Base.
- Columbia Gas requests authorization to construct and operate horizontal storage wells 12626 and 12635, and related pipeline and appurtenances at its Pavonia Storage Field in Ashland County, OH.



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### Natural Gas Activities in February 2019

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
<b>Pipeline</b>						
Placed in Service	2			3,460	0	269,900
Certificated	4			849	61	49,253
Proposed	3			476	22	34,990
<b>Storage</b>						
Placed in Service	0	0.0	0.0			0
Certificated	1	0.0	79.0			0
Proposed	0	0.0	0.0			0
<b>LNG (Import &amp; Export)</b>						
Placed in Service (Export)	0	0.0	0.0			0
Certificated (Import/Export)	1	8.2	1,414.0			0
Proposed (Import/Export)	0	0.0	0.0			0

Source: Staff Database

### Natural Gas Activities through February 28, 2019 January through February 28, 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 through February 28, 2018	2 0			3,460.0 0	0.2 0	269,900 0
Certificated through February 28, 2018	6 11			924.2 2,788	60.8 202	54,013 121,015
<b>Storage</b>						
Placed in Service through February 28, 2018	0 0	0.0 0	0.0 0			0 0
Certificated through February 28, 2018	1 1	0.0 0	79.0 125			0 0
<b>LNG (Import &amp; Export)</b>						
Placed in Service (Export) through February 28, 2018	0 0	0.0 0	0.0 0			0 0
Certificated (Import/Export) through February 28, 2018	1 0	8.2 0	1,414.0 0			0 0

Source: Staff Database



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### Hydropower Highlights (nonfederal)

There were no hydropower activities this month.

#### Hydropower Project Activities Year to Date (through February 28, 2019)

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	0.230	0	0	0	0	1	0.230
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	0	0	0	0	0	0
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

Source: Staff Database



## Office of Energy Projects Energy Infrastructure Update For February 2019

### Electric Generation Highlights

- Saratoga Wind Energy LLC's 66.0 MW Saratoga Project in Howard County, IA is online.
- Apple Inc's 200.0 MW solar powered Apple Data Center in Washoe County, NV is online.
- Kenyon Energy KS Solar 1 LLC's 7.7 MW Pratt Municipal Solar Project in Pratt County, KS is online. The power generated is sold to the City of Pratt, KS under long-term contract.

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

Primary Fuel Type	February 2019		January – February 2019 Cumulative		January – February 2018 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	0	0	5	539	3	40
Nuclear	0	0	0	0	3	30
Oil	0	0	0	0	3	8
Water	0	0	0	0	2	12
Wind	1	66	4	424	15	1,589
Biomass	0	0	0	0	3	3
Geothermal Steam	0	0	0	0	1	19
Solar	6	214	26	949	85	954
Waste Heat	0	0	0	0	0	0
Other *	2	0	3	0	6	5
<b>Total</b>	<b>9</b>	<b>280</b>	<b>38</b>	<b>1,912</b>	<b>121</b>	<b>2,660</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	262.51	21.91%
Natural Gas	528.09	44.08%
Nuclear	107.98	9.01%
Oil	41.63	3.47%
Water	100.33	8.37%
Wind	97.54	8.14%
Biomass	16.15	1.35%
Geothermal Steam	3.86	0.32%
Solar	37.85	3.16%
Waste Heat	1.36	0.11%
Other*	0.78	0.06%
<b>Total</b>	<b>1,198.06</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.



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### Proposed Generation Additions and Retirements by March 2022

Primary Fuel Type	All Additions		High Probability Additions		Retirements	
	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)
Coal	1	17	1	17	62	16,409
Natural Gas	266	70,680	126	32,435	93	8,925
Nuclear	12	11,481	4	4,800	9	9,052
Oil	18	732	7	39	21	2,070
Water	229	15,063	84	1,000	19	539
Wind	545	100,483	139	24,560	0	0
Biomass	55	575	21	418	30	145
Geothermal Steam	18	913	6	280	0	0
Solar	2,457	79,734	523	12,050	5	2
Waste Heat	3	34	2	29	0	0
Other *	95	455	24	7	1	2
<b>Total</b>	<b>3,699</b>	<b>280,167</b>	<b>937</b>	<b>75,635</b>	<b>240</b>	<b>37,144</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

- Dominion Resources has completed the 7.4 mile 500 kV Surry - Skiffes Creek Transmission Project in VA.
- Dominion Resources has completed the 20.0 mile 230 kV Whealton - Skiffes Creek Transmission Project in VA.

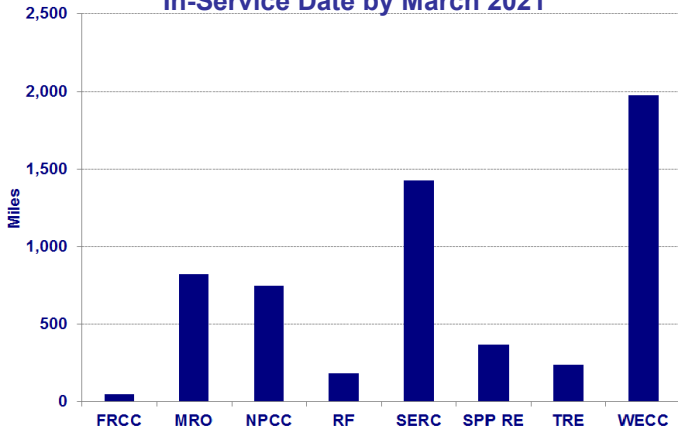
Voltage (kV)	Transmission Projects Completed				Proposed Transmission Projects In-Service by March 2021	
	February 2019	February 2018	January – February 2019 Cumulative	January – December 2018 Cumulative	High Probability of Completion	All
	Line Length (miles)					
≤230	20.0	36.0	20.0	375.3	532.1	1,756.5
345	0.0	0.0	0.0	714.5	686.0	2,369.0
500	7.4	0.0	7.4	69.4	738.0	1,662.0
<b>Total U.S.</b>	<b>27.4</b>	<b>36.0</b>	<b>27.4</b>	<b>1,159.2</b>	<b>1,956.1</b>	<b>5,787.5</b>

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

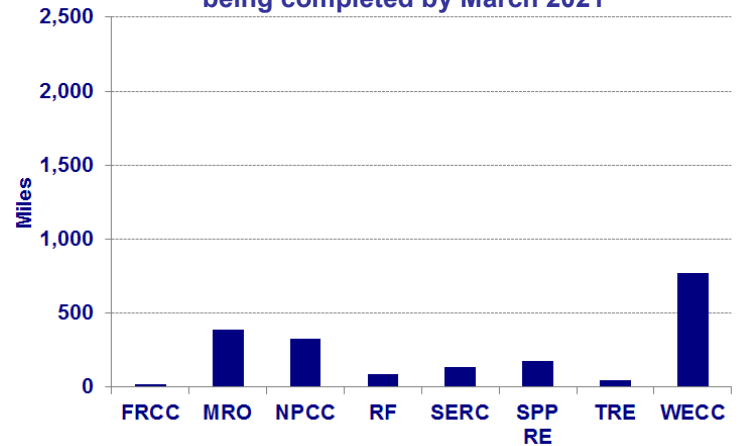


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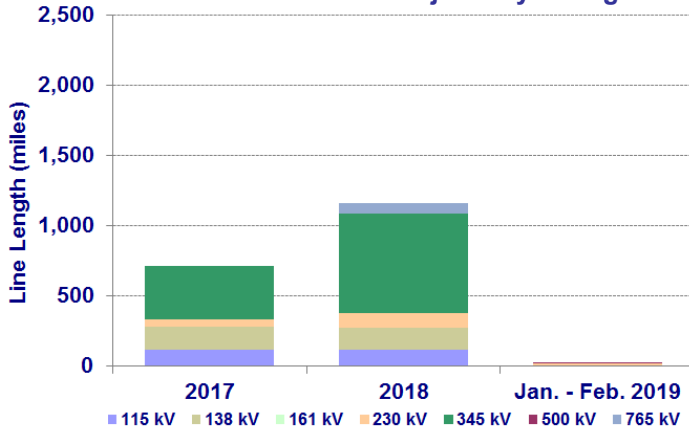
**All Transmission Projects with a Proposed In-Service Date by March 2021**



**Transmission Projects with a High Probability of being completed by March 2021**



**New Transmission Projects by Voltage**



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