



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

### Natural Gas Highlights

- Columbia Gulf received authorization to place in service its Cameron Access Project, which will provide 800 MMcf/d of bi-directional capacity for shippers on its West Lateral Line located in LA.
- Transco received authorization to place into service its Garden State Expansion Project, which will provide 180 MMcf/d of capacity from Station 210 in Mercer County, NJ to a new delivery point in Burlington County, NJ.
- Dominion Cove Point LNG received authorization to commence service for both the Maryland and Virginia facilities of the Cove Point Liquefaction Project, which has a sendout capacity of 825 MMcf/d.
- Columbia received authorization to retire segments of five existing Columbia pipelines in Allegheny and Washington Counties, PA and to construct 3.25 miles of new line to accommodate a highway relocation project.
- Blue Mountain Midstream received authorization to construct its 255 MMcf/d Blue Mountain Delivery Project, which includes 9.7 miles of new pipeline from its natural gas processing plant in Grady County, OK.
- National Fuel received authorization to construct its Line YM28 and Line FM120 Modernization Project, designed to enhance service to its existing customers. The project includes installing 14.4 miles of new pipeline (Line KL), replacing 5.8 miles and idling 12.5 miles of Line FM120, and abandoning 7.7 miles of Line YM28 in Cameron, Elk, and McKean Counties, PA.
- DTE Mainstream Appalachia received authorization to construct 13.2 miles of pipeline in Berks County, PA from an interconnection with Texas Eastern to the new Birdsboro gas-fired generation facility.
- Transwestern received authorization to modify the existing units at its WT-1 Compressor Station in Lea County, NM, which would add 130 MMcf/d of capacity on its West Texas Lateral between the WT-1 Station and CS 9.
- Texas Eastern received authorization to relocate segments of its Lines 1-B and 1-F in Montgomery County, PA in order to accommodate a highway expansion project.
- Northwest Pipeline received authorization to remove, replace, and lower 1,700 feet of 30-inch pipeline in the north floodplain of the North Fork Nooksack River in Whatcom County, WA. The project includes removal of 1,550 feet of previously abandoned in place 26-inch pipeline that will become exposed during the construction.
- Tallgrass received authorization to decrease the maximum certificated capacity at its Cheyenne Market Service Center in its Huntsman Storage in Cheyenne County, NE by 1.6 Bcf, and to convert the capacity to no-notice service.
- Columbia Gas requests authorization for its Line 1983 Glenville to Smithfield Launcher & Receiver Project, which would enable the in-line inspection of a portion of Line 1983 in Gilmer, Doddridge, and Wetzel Counties, WV.
- Cheyenne Connector requests authorization to construct its Cheyenne Connector Pipeline Project in Weld County, CO, including 70 miles of pipeline to deliver 600 MMcf/d from processing plants to the REX pipeline.
- REX requests authorization to construct its Cheyenne Enhancement project, including installing new compression and ancillary facilities at the existing Cheyenne Compressor Station in Weld County, CO, which would enable REX to provide a new hub service allowing for firm receipts and deliveries at the Cheyenne Hub.
- Panther requests authorization to abandon approximately 56 miles of gathering and transmission pipeline located both offshore, and onshore in Jefferson County, TX.
- Florida Southeast requests 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 nonjurisdictional facilities.
- Texas Gas requests authorization for its NLP-BJB Abandonment Project, which would abandon approximately 36.8 miles of pipeline in Terrebonne Parish, LA and in offshore LA. The facilities have been inactive since 2012.
- Wyoming Interstate requests authorization for its Cheyenne Compressor Station Expansion Project in Weld County, CO, which would reclassify an existing spare unit for use in day-to-day transportation and allow WIC to accept additional deliveries at the Flying Hawk interconnect with CIG.
- Rover requests 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 that would allow it to receive up to 350 MMcf/d of natural gas from Utica Gas Services, LLC.
- National Fuel requests authorization to construct its Line N to Monaca Project, including 4.5 miles of pipeline, a metering and regulating station/delivery point, and other related modifications and appurtenances in Beaver and Washington Counties, PA. The project would provide 133 MMcf/d of firm transportation services to the Shell Petrochemicals Complex in Potter Township, PA.



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- Columbia Gas requests authorization to construct its Buckeye Xpress Project, which includes replacing 60.8 miles of 20 and 24-inch pipeline with 66.2 miles of 36-inch pipeline in order to modernize the facilities and add 275 MMcf/d of additional capacity in Vinton, Jackson, Gallia and Laurence Counties, OH and Wayne County, WV.
- ANR Storage requests authorization to construct the Cold Springs 12-17 injection/withdrawal well at its Cold Springs 12 Storage Field in Kalkaska County, MI. The new well will not affect the field's capacity or deliverability.
- Transco requests authorization for partial abandonment of service at its Eminence Storage Field in Covington County, MS, including reduction of certified pressures and partial abandonment of storage capacity in caverns 5, 6, and 7.
- Columbia gas requests permission to construct new wells 12606 and 12607 at its Pavonia Storage Field in Ashland County, OH. The new wells will restore 9 MMcf/d of deliverability to the field.



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### Natural Gas Activities in March 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	2			980	34	62,760
Certificated	5			464	40	0
Proposed	6			1,612	179	44,300
<b>Storage</b>						
Placed in Service	0	0.0	0.0			0.0
Certificated	0	0.0	0.0			0
Proposed	1	0.0	9.0			0
<b>LNG (Import &amp; Export)</b>						
Placed in Service (Export)	1	0.0	825.0			0
Certificated (Import/Export)	0	0.0	0.0			0
Proposed (Import/Export)	0	0.0	0.0			0

Source: Staff Database

### Natural Gas Activities through March 31, 2018 January through March 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	2			980.0	34.1	62,760
through March 31, 2017	7			2269.3	58.1	135,850
Certificated	16			3251.5	242.4	121,015
through March 31, 2017	12			9627.9	1253.2	618,584
<b>Storage</b>						
Placed in Service	0	0.0	0.0			0
through March 31, 2017	0	0.0	0.0			0
Certificated	1	0.3	125.0			0
through March 31, 2017	0	0.0	0.0			0
<b>LNG (Import &amp; Export)</b>						
Placed in Service (Export)	1	0.0	825.0			0
through March 31, 2017	1	0.0	700.0			0
Certificated (Import/Export)	0	0.0	0.0			0
through March 31, 2017	0	0.0	0.0			0

Source: Staff Database



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### Hydropower Highlights (nonfederal)

There were no hydropower activities this month.

#### Hydropower Project Activities in March 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	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

#### Hydropower Project Activities Year to Date (through March 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	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	0	0	0	0	0	0
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

- Invenergy Thermal Development LLC's 465.0 MW natural gas-fired Lackawanna Energy Center in Lackawanna County, PA is online.
- Doswell II LLC's 187.0 MW natural gas-fired Doswell Combined Cycle Facility in Hanover County, VA is online.
- Southern Minnesota Municipal Power Agency's 38.8 MW natural gas-fired Owatonna Energy Station in Steele County, MN is online.
- Flat Top Wind I LLC's 200.0 MW Logans Gap Wind Project in Comanche County, TX is online. The power generated is sold to Walmart under long-term contract.
- AL Solar A LLC's 79.2 MW Lafayette Solar Project in Chambers County, AL is online. The power generated is sold to Alabama Power Co under long-term contract.
- Florida Power & Light Co.'s 74.5 MW Barefoot Bay Solar Energy Center in Brevard County, FL is online.
- Florida Power & Light Co.'s 74.5 MW Blue Cypress Solar Project in Indian River County, FL is online.
- Florida Power & Light Co.'s 74.5 MW Hammock Solar Project in Hendry County, FL is online.
- Florida Power & Light Co.'s 74.5 MW Loggerhead Solar Energy Center in Saint Lucie County, FL is online.
- Great Bay Solar I LLC's 57.0 MW Great Bay Energy Center in Somerset County, MD is online. The power generated is sold to U.S. Government Services under long-term contract.
- Fusion Solar Center LLC's 20.0 MW Fusion Solar Center in New London County, CT is online.
- RE Gaskell West 1 LLC's 20.0 MW RE Gaskell West Solar Project in Kern County, CA is online.
- Cypress Creek Renewables LLC's 13.0 MW Gaston Solar I Project in Lexington County, SC is online. The power generated is sold to South Carolina Electric & Gas Company under long-term contract.
- OR Holdings LLC's 12.7 MW Dairy Solar Project in Klamath County, OR is online. The power generated is sold to Pacific Power under long-term contract.
- OGE Energy Corp's 10.0 MW Covington Solar Project in Garfield County, OK is online.
- Dundas Solar Holdings LLC's 6.6 MW Dundas Solar Electric Facility in Rice County, MN is online.
- Waterville Solar Holdings LLC's 6.6 MW Waterville Solar Electric Facility in Le Sueur County, MN is online.
- Sol Systems LLC's 6.0 MW Danville Solar Project in Danville City County, VA is online. The power generated is sold to Danville Power & Light Department under long-term contract.
- Fox CSG 1 LLC's 5.2 MW Fox CSG Solar Project in Chisago County, MN is online.
- AEP Onsite Partners LLC's 5.0 MW Sherburne Community Solar Project in Sherburne County, MN is online.
- Cottage Grove CSG 1 LLC's 5.0 MW Cottage Grove CSG Solar Project in Washington County, MN is online.
- Ecoplexus Inc.'s 5.0 MW Wyoming 2 CSG Solar Project in Chisago County, MN is online.
- Dominion Cove Point LNG LP's 80.0 MW waste heat Cove Point LNG Terminal Generation in Calvert County, MD is online.
- Dominion Cove Point LNG LP's 6.0 MW hydropower Cove Point LNG Terminal Generation in Calvert County, MD is online.



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

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

Primary Fuel Type	March 2018		January – March 2018 Cumulative		January – March 2017 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	6	691	8	731	30	2,549
Nuclear	0	0	1	4	1	102
Oil	2	2	5	10	4	7
Water	3	6	5	18	3	12
Wind	1	200	18	1,956	33	2,854
Biomass	0	0	3	3	9	88
Geothermal Steam	0	0	1	19	0	0
Solar	64	602	135	1,444	147	1,433
Waste Heat	2	80	2	80	1	220
Other *	2	0	7	5	10	1
<b>Total</b>	<b>80</b>	<b>1,581</b>	<b>185</b>	<b>4,270</b>	<b>238</b>	<b>7,266</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	270.20	22.90%
Natural Gas	512.81	43.47%
Nuclear	108.18	9.17%
Oil	41.93	3.55%
Water	100.26	8.50%
Wind	90.95	7.71%
Biomass	16.49	1.40%
Geothermal Steam	3.85	0.33%
Solar	32.96	2.79%
Waste Heat	1.34	0.11%
Other*	0.79	0.07%
<b>Total</b>	<b>1,179.76</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 April 2021

Primary Fuel Type	Additions		Retirements	
	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)
Coal	1	17	61	13,716
Natural Gas	343	87,404	132	14,567
Nuclear	6	6,363	5	4,532
Oil	25	744	38	442
Water	250	12,223	19	539
Wind	495	91,174	2	68
Biomass	60	705	19	50
Geothermal Steam	24	1,115	0	0
Solar	1,793	52,395	5	2
Waste Heat	6	96	0	0
Other *	62	680	1	0
<b>Total</b>	<b>3,065</b>	<b>252,916</b>	<b>282</b>	<b>33,916</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.





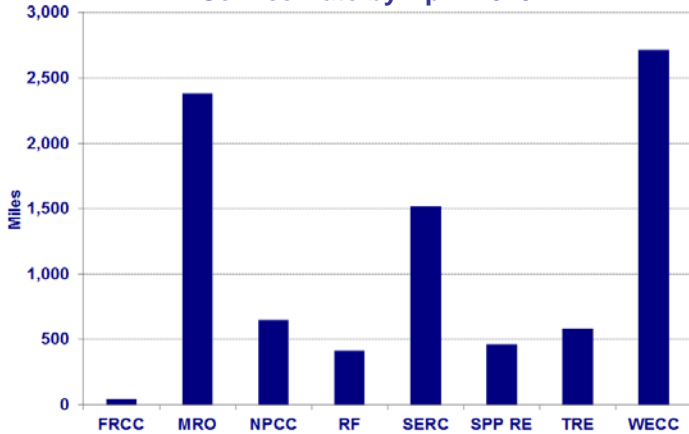
# Office of Energy Projects Energy Infrastructure Update For March 2018

## Electric Transmission Highlights

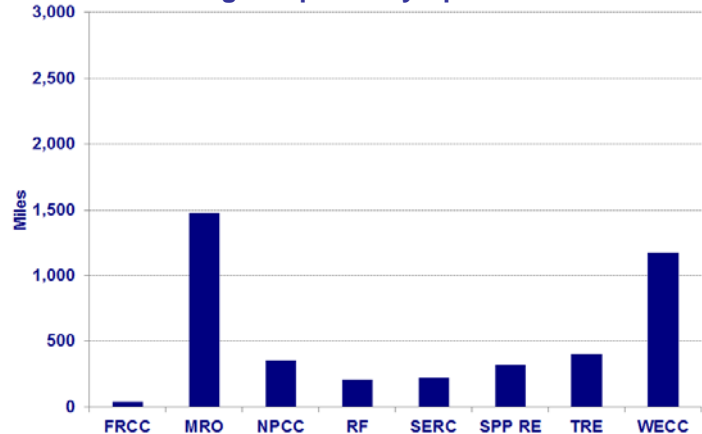
- Entergy Louisiana has completed the 11.0 mile, 230 kV Oakville – Alliance Transmission Project in LA.

Voltage (kV)	Transmission Projects Completed				Proposed Transmission Projects In-Service by April 2020	
	March 2018	March 2017	January – March 2018 Cumulative	January – December 2017 Cumulative	High Probability of Completion	All
	Line Length (miles)					
≤230	11.0	55.3	77.0	301.9	1,419.0	3,056.2
345	0.0	64.0	0.0	218.5	2,379.5	4,032.2
500	0.0	0.0	0.0	0.0	393.4	1,678.4
<b>Total U.S.</b>	<b>11.0</b>	<b>119.3</b>	<b>77.0</b>	<b>520.4</b>	<b>4,191.9</b>	<b>8,766.8</b>

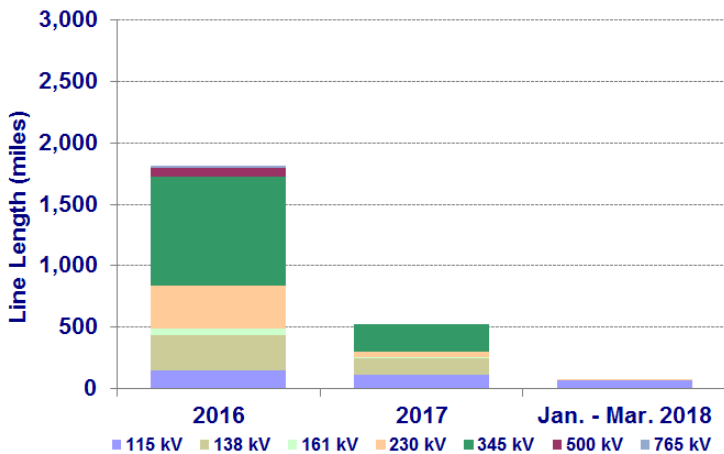
**All Transmission Projects with a Proposed In-Service Date by April 2020**



**Transmission Projects with a High Probability of being completed by April 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.