



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

### Natural Gas Highlights

- Atlanta Gas Light received a service area determination to include two of its customers in Walker County, GA that have meters located across the border in Tennessee.
- Chattanooga Gas received a service area determination that encompasses its Tennessee LDC certificated area, as well as facilities serving one of its customers across the state line in Walker and Catoosa County, GA.
- Southern Natural Gas received authorization for its North Main System Upgrade Project, which involves upgrades at its McConnells Compressor station in Tuscaloosa County, AL in order to increase the firm transportation capacity on its North Main System by 5 MMcf/d.
- Colorado Interstate Gas received authorization for its CIG High Plains Kiowa Lateral Expansion Project, including 9.9 miles of new pipeline to provide 410 MMcf/d of transportation capacity from a natural gas processing plant to the CIG system in Weld County, CO.
- Algonquin received authorization for its Yorktown Replacement and Reliability Project, including upgrading the facilities at its regulating station in Westchester County, NY, to increase delivery capacity by 21.7 MMcf/d.
- Driftwood LNG received authorization to site, construct, and operate a liquefied natural gas export facility with an export capacity of 4 Bcf/d, in Calcasieu Parish, LA.
- Driftwood Pipeline received authorization to construct a new interstate pipeline system comprising of a 98 mile pipeline, three compressor stations with a combined 269,500 HP, and related facilities to transport up to 3.5 Bcf/d of feedgas to the Driftwood LNG export terminal.
- Port Arthur LNG received authorization to construct and operate a liquefied natural gas terminal in Jefferson County, TX, which would provide 1.8 Bcf/d export capacity.
- Port Arthur Pipeline received authorization to construct a new interstate natural gas pipeline system to provide up to 4 Bcf/d of feedgas to Port Arthur LNG. The project would comprise two non-integrated pipelines: the 131 mile 2 Bcf/d Louisiana Connector Project, from St. Landry Parish, LA to the LNG facility; and the 39 mile 2 Bcf/d Texas Connector Project in Jefferson and Orange Counties, TX and Cameron Parish, LA.
- Greylock Pipeline received authorization to transfer ownership of its pipeline in Clearfield and Elk Counties, PA, to its subsidiary, Greylock Shawville Pipeline, for corporate re-structuring purposes.
- Florida Gas received authorization for its Sanford Project, including modification and construction of certain natural gas pipeline facilities, lateral looping, and other appurtenant facilities in order to increase hourly flow rights from 15.7 to 17.2 MMBtu/hr to the FPL Sanford Plant in Volusia County, FL.
- Guthrie Natural Gas received a 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.
- Equitrans requests authorization to abandon in place 3.82 miles of the TP-4555 pipeline, part of its Allegheny Valley Connector System, and replace it with 9.92 miles of new pipeline. This project is in Westmoreland County, PA.
- Columbia Gas requests authorization for its Dundee Wells 122 and 166 Abandonment Project, including abandoning these wells and associated pipelines at its Dundee Storage Field in Steuben and Schuyler counties, NY.
- Perryville Gas received an amendment for its certificate's sonar survey and wellbore integrity requirements at its storage caverns in Franklin and Richland Counties, LA.
- Columbia Gas received 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.
- Enable Gas requests authorization to install a new delivery meter in Sequoia County, OK, in order provide direct service to a customer.
- Enable Gas requests authorization to decrease the maximum allowable operating pressure of its Line JM-22 in Monroe County, AR, from 686 to 400 psig. This change will have no adverse effects on its customer's service.
- Texas Eastern requests authorization for its Bernsville Compressor Units Replacement Project, which would replace two compressors with new units in Berks County, PA. The project will not affect the station's certificated horsepower.
- Columbia Gulf requests authorization to replace 2,500 feet of its Mainlines 100 and 200 in Menifee and Montgomery Counties, KY, in order to continue operating the lines at the current pressures.
- Mississippi Hub requests authorization to continue to own and operate Gas Compressor 4 at its storage terminal in Simpson County, MS. Authorization for this unit may have been incorrectly vacated by the previous owner.
- Wyoming Interstate requests authorization to abandon by sale to its affiliate, Hiland Crude, LLC, Line 29A of its Medicine Bow Lateral in Converse, Platte, and Laramie Counties, WY, and Weld County, CO. Line 29A would be converted to oil transportation.



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- National Fuel requests authorization for its Brockway Modernization Project, which includes replacing 9.6 miles of aging pipeline with 10.1 miles of new pipeline in Jefferson and Elk Counties, PA.

### Natural Gas Activities in April 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	0			0	0	0
Certificated	5			8,437	276	423,552
Proposed	2			0	14	0
<b>Storage</b>						
Placed in Service	0	0.0	0.0			0
Certificated	0	0.0	0.0			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)	2	25.4	5,865.0			0
Proposed (Import/Export)	0	0.0	0.0			0

Source: Staff Database

### Natural Gas Activities through April 30, 2019 January through April 30, 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			3943.5	1.4	282,400
through April 30, 2018	3			980.0	56.3	62,760
Certificated	12			9565.9	336.9	530,633
through April 30, 2018	19			3873.1	267.6	136,695
<b>Storage</b>						
Placed in Service	0	0.0	0.0			0
through April 30, 2018	0	0.0	0.0			0
Certificated	1	0.0	79.0			0
through April 30, 2018	3	3600.3	143.0			0
<b>LNG (Import &amp; Export)</b>						
Placed in Service (Export)	2	10.1	1413.0			0
through April 30, 2018	1	0.0	825.0			0
Certificated (Import/Export)	4	34.3	7279.0			0
through April 30, 2018	0	0.0	0.0			0

Source: Staff Database



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### Hydropower Highlights (nonfederal)

- Swan Lake North Hydro LLC was issued an original license for the 393.3 MW Swan Lake North Pumped Storage Project No. 13318. The project will be located in Klamath County, OR.
- Warm Springs Hydro, LLC filed an application for an original license for the proposed 0.850 MW Rock Creek Hydroelectric Project No. 12726. The project would be located on the Rock Creek in Haines County, OR.

#### Hydropower Project Activities in April 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	1	0.850	0	0	0	0	1	0.850
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	1	393.300	0	0	1	393.300
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 April 30, 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	1	0.850	0	0	0	0	1	0.850
10-MW Exemption	0	0	0	0	0	0	0	0
Capacity Amendment	2	3.900	0	0	0	0	2	3.900
Conduit Exemption	0	0	0	0	0	0	0	0
<b>Issued</b>								
License	0	0	1	393.300	0	0	1	393.300
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



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### Electric Generation Highlights

- Arizona Public Service Co.'s 323.8 MW expansion at the natural gas-fired Ocotillo Plant in Maricopa County, AZ is online.
- Florida Power & Light Co's 159.0 MW rerate of Sanford (FL) natural gas-fired Plant in Volusia County, FL is online.
- Midway Wind LLC's 162.9 MW Midway Wind Project in San Patricio County, TX is online. The power generated is sold to Citigroup Inc. under long-term contract.
- Tampa Electric Co.'s 32.0 MW Lake Hancock Solar Project in Polk County, FL is online.
- Strata Solar Development LLC's 20.0 MW Gloucester Solar (VA) Project in Gloucester County, VA is online.
- Cascade Solar LLC's 10.0 MW Cascade Solar LLC in Wharton County, TX is online.
- DuPont Fabros Technology's 15.0 MW light oil-fired Ashburn Corporate Center expansion in Loudoun County, VA is online.

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

Primary Fuel Type	April 2019		January – April 2019 Cumulative		January – April 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	4	10
Natural Gas	8	515	33	4,151	26	4,957
Nuclear	1	155	1	155	3	30
Oil	3	22	5	26	10	18
Water	0	0	4	29	6	18
Wind	2	165	19	1,547	17	1,792
Biomass	0	0	0	0	5	16
Geothermal Steam	0	0	0	0	2	34
Solar	12	79	125	1,568	218	1,837
Waste Heat	0	0	0	0	0	0
Other *	6	0	12	0	9	5
<b>Total</b>	<b>32</b>	<b>936</b>	<b>199</b>	<b>7,476</b>	<b>300</b>	<b>8,717</b>

### Total Available Installed Generating Capacity

	Installed Capacity (GW)	% of Total Capacity
Coal	257.48	21.55%
Natural Gas	531.08	44.44%
Nuclear	106.99	8.95%
Oil	39.77	3.33%
Water	100.44	8.41%
Wind	98.62	8.25%
Biomass	16.10	1.35%
Geothermal Steam	3.83	0.32%
Solar	38.54	3.23%
Waste Heat	1.32	0.11%
Other*	0.78	0.07%
<b>Total</b>	<b>1,194.95</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.

\* "Other" includes purchased steam, tires, and miscellaneous technology such as batteries, fuel cells, energy storage, and fly wheel.



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### Proposed Generation Additions and Retirements by May 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	52	13,992
Natural Gas	218	58,403	106	27,520	108	10,105
Nuclear	9	7,781	1	1,100	8	8,386
Oil	21	733	10	40	21	1,065
Water	217	14,608	84	1,910	19	526
Wind	537	99,037	161	27,128	1	239
Biomass	61	624	27	467	32	139
Geothermal Steam	18	860	6	280	0	0
Solar	2,533	85,431	536	16,320	1	1
Waste Heat	4	34	2	29	0	0
Other *	131	475	31	7	1	2
<b>Total</b>	<b>3,750</b>	<b>268,003</b>	<b>965</b>	<b>74,818</b>	<b>243</b>	<b>34,455</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

- American Transmission Company has completed the 4.0 mile, 345 kV Riverside Transmission Project in WI.
- Entergy Texas has completed the 25.0 mile, 230 kV China – Stowell Transmission Project in TX.
- CLECO Power has completed the 24.0 mile, 230 kV Schriver – Bayou Vista Transmission Project in LA.
- Omaha Public Power District has completed the 22.0 mile, 161 kV Elkhorn River Valley Transmission Project in NE.

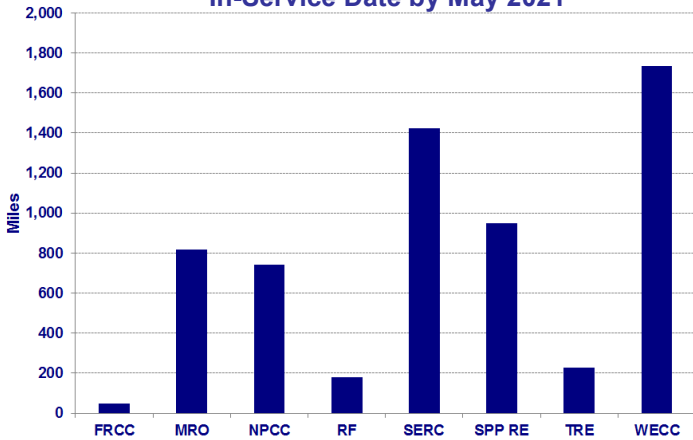
Voltage (kV)	Transmission Projects Completed				Proposed Transmission Projects In-Service by May 2021	
	April 2019	April 2018	January – April 2019 Cumulative	January – December 2018 Cumulative	High Probability of Completion	All
	Line Length (miles)					
≤230	71.0	11.0	91.0	392.3	532.1	1,748.0
345	4.0	70.0	169.0	819.3	1,067.0	2,712.0
500	0.0	0.0	7.4	69.4	738.0	1,662.0
<b>Total U.S.</b>	<b>75.0</b>	<b>81.0</b>	<b>267.4</b>	<b>1,281.0</b>	<b>2,337.1</b>	<b>6,122.0</b>

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

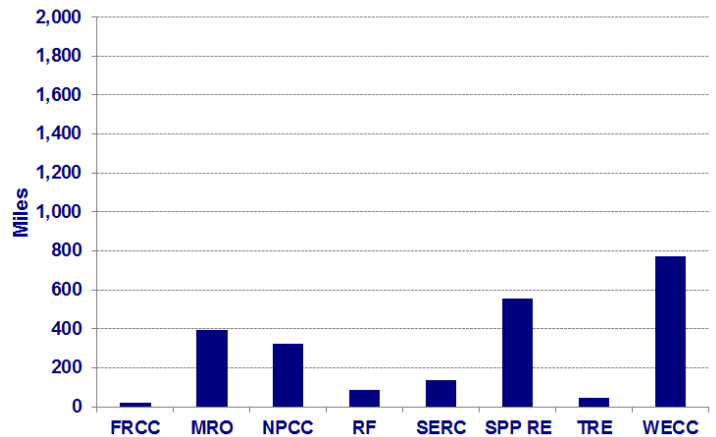


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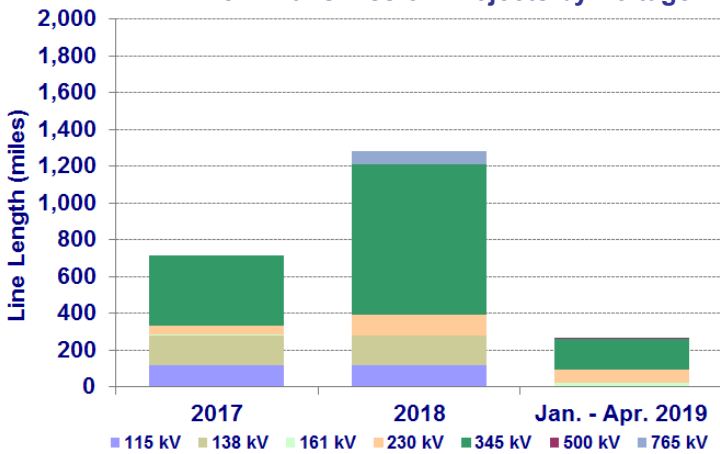
**All Transmission Projects with a Proposed In-Service Date by May 2021**



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



**New Transmission Projects by Voltage**



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

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