



Office of Energy Projects Energy Infrastructure Update For September 2018

Natural Gas Highlights

- National Fuel received authorization to place into service the Allegheny River crossing portion of its Line Q, QP, and Queen Storage Facility Project in Warren County, PA.
- Transwestern received authorization to abandon in place the Atoka 3 Compressor Station located in Eddy County, NM. The facility has not been used in the past 3-years.
- UGI Central Penn Gas (CPG) and UGI Utilities (UGIU) received authorization for CPG to abandon certain limited jurisdiction certificates, and for transfer of a service area determination to UGIU as part of the pending transfer of local distribution assets from CPG to UGIU in Maryland and Pennsylvania.
- El Paso Natural Gas received authorization for its Permian North Project, which consists of installing/upgrading appurtenant facilities in Winkler and Yoakum Counties, TX and Eddy and Lea Counties, NM, and increasing the maximum allowable operating pressure of a segment of its Line No. 1115 in Ector County, TX.
- Florida Gas received authorization for its Okeechobee Lateral Project, which includes construction of 3.4 miles of new pipeline, a new interconnect, and construction and modifications of related facilities in Hillsborough, Polk, and Martin Counties, FL. The project is designed to deliver 12 MMcf/d of gas to Florida Public Utilities Company.
- Rover received authorization for its Iron Bank Meter Station Project, which includes a new meter station on its Majorsville Lateral in Marshall County, PA, to allow it to receive up to 500 MMcf/d of gas from APP Midstream.
- Rover received authorization for the Revolution Receipt Point on its Burgettstown Lateral in Washington County, PA in order to receive up to 525 MMcf/d of gas from ETC Northeast.
- Florida Gas received authorization for its South Alabama Project, with includes replacing a compressor in Santa Rosa County, FL, and modifying a delivery point in Escambia County, AL in order to increase deliverability by 60 MMcf/d.
- Columbia Gas received authorization to abandon two injection/withdrawal wells at its Brinker Storage Field in Columbiana County, OH, one I/W well at its Victory B Storage Field, in Marshall County, WV, and associated pipelines and appurtenances. The abandonments will not impact current customers or operations.
- Columbia Gas received authorization to abandon 12 injection/withdrawal wells and associated pipelines and appurtenances, at five of its northern Ohio storage fields in Ashland, Medina, and Richland counties, OH.
- Columbia Gas received authorization to abandon certain facilities at its Benton and Laurel gas Storage Fields in Hocking County, OH. Specifically, Benton Well 9507 and Laurel Wells 9097, 9239, and 9285, and to convert injection/withdrawal Benton Well 7612 to an observation well.
- Dominion Energy Questar received authorization to amend its certificate in order to eliminate Operating Parameter 3, and enable its customers to inject gas earlier than November 1 of each heating season at its Chalk Creek Aquifer Storage facility in Summit County, UT.
- Pine Prairie Energy received authorization to reallocate the certificated capacities for its storage caverns Nos. 1-7 from working to base gas, increasing the base gas by approximately 8 MMcf/d in order to maintain its ability to provide high deliverability rates at its facility in Southern Louisiana.
- Eastern Shore requests authorization for its Del-Mar Energy Pathway Project, which includes 19.5 miles of pipeline in Kent and Sussex Counties, DE and Wicomico and Somerset Counties, MD. The project would add 14.3 MMcf/d of capacity to serve LDC and industrial customers.
- Equitrans requests authorization to abandon by sale to Consol 18 natural gas injection/withdrawal wells in Greene County, PA. The abandonments would take place over the course of 10 years, and not affect service to firm customers.



Office of Energy Projects Energy Infrastructure Update For September 2018

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service	1			0	5	0
Certificated	3			254	3	3,000
Proposed	1			14	19	0
Storage						
Placed in Service	0	0	0			0
Certificated	0	0	0			0
Proposed	0	0	0			0
LNG (Import & Export)						
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 September 30, 2018 January through September 30, 2017

Status	No. of Projects	Storage Capacity (BCF)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service	10			4,716.2	105.5	183,800
through September 30, 2017	18			5,295.9	478.0	312,429
Certificated	42			8,682.1	643.0	284,095
through September 30, 2017	27			14,923.1	1,556.1	1,039,667
Storage						
Placed in Service	0	0.0	0.0			0
through September 30, 2017	1	7.5	600.0			9,500
Certificated	4	3,600.3	152.0			0
through September 30, 2017	1	0.0	10.0			0
LNG (Import & Export)						
Placed in Service (Export)	1	0.0	825.0			0
through September 30, 2017	2	0.0	793.0			0
Certificated (Import/Export)	0	0.0	0.0			0
through September 30, 2017	0	0.0	0.0			0

Source: Staff Database



Office of Energy Projects Energy Infrastructure Update For September 2018

Hydropower Highlights (nonfederal)

- NorthWestern Corporation was issued an order raising the capacity of its Missouri-Madison Project No. 2188 from 303.500 MW to 305.240 MW. The project is located on the Missouri and Madison Rivers in Gallatin, Madison, Lewis and Clark and Cascade Counties, MT.

Hydropower Project Activities in September 2018

Status	Conventional		Pumped Storage		Hydrokinetic		Total No. of Projects	Total Capacity (MW)
	No.	Capacity (MW)	No.	Capacity (MW)	No.	Capacity (MW)		
Filed								
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
Issued								
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	0	0	0	0	1	1.740
Conduit Exemption	0	0	0	0	0	0	0	0
Placed in Service								
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 September 30, 2018)

Status	Conventional		Pumped Storage		Hydrokinetic		Total No. of Projects	Total Capacity (MW)
	No.	Capacity (MW)	No.	Capacity (MW)	No.	Capacity (MW)		
Filed								
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
Issued								
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	335.0000	0	0	1	335.000
Conduit Exemption	0	0	0	0	0	0	0	0
Placed in Service								
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



Office of Energy Projects Energy Infrastructure Update For September 2018

Electric Generation Highlights

- Persimmon Creek Wind Farm 1 LLC's 200.0 MW Persimmon Creek Wind Farm in Woodward County, OK is online.
- Rattlesnake Power LLC's 160.0 MW RTS Wind Project in McCulloch County, TX is online.
- Midway Solar LLC's 182.0 MW Midway Solar (TX) Project in Pecos County, TX is online. The power generated is sold to Austin Energy under long-term contract.
- Tampa Electric Co.'s 70.3 MW Payne Creek Solar Project in Polk County, FL is online.
- OCI Lamesa Solar II LLC's 50.0 MW Lamesa Solar Facility in Dawson County, TX is online. The power generated is sold to the City of Garland, TX under long-term contract.
- 97WI 8ME LLC's 24.5 MW Midway III Solar Project in Imperial County, CA is online. The power generated is sold to San Diego Gas & Electric Co. under long-term contract.

New Generation In-Service (New Build and Expansion)

Primary Fuel Type	September 2018		January – September 2018 Cumulative		January – September 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	0	0	68	12,110	79	11,100
Nuclear	0	0	1	4	1	102
Oil	0	0	11	18	18	53
Water	0	0	10	33	12	215
Wind	3	363	32	2,747	55	4,615
Biomass	0	0	11	66	25	265
Geothermal Steam	0	0	2	21	1	18
Solar	9	339	310	3,043	433	3,450
Waste Heat	0	0	2	80	1	220
Other *	1	0	18	5	24	1
Total	13	702	469	18,137	649	20,039

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 September 2018

Total Available Installed Generating Capacity

	Installed Capacity (GW)	% of Total Capacity
Coal	268.17	22.55%
Natural Gas	522.59	43.95%
Nuclear	107.66	9.05%
Oil	41.67	3.50%
Water	100.49	8.45%
Wind	91.67	7.71%
Biomass	16.26	1.37%
Geothermal Steam	3.79	0.32%
Solar	34.63	2.91%
Waste Heat	1.38	0.12%
Other*	0.78	0.07%
Total	1,189.09	100.00%

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 October 2021

Primary Fuel Type	Additions		Retirements	
	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)
Coal	1	17	74	19,255
Natural Gas	291	79,351	112	11,945
Nuclear	8	8,021	8	8,040
Oil	18	728	22	166
Water	252	14,896	19	633
Wind	494	89,880	1	50
Biomass	57	593	24	124
Geothermal Steam	22	1,076	0	0
Solar	2,020	61,623	5	2
Waste Heat	6	96	0	0
Other *	88	690	0	0
Total	3,257	256,971	265	40,215

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 September 2018

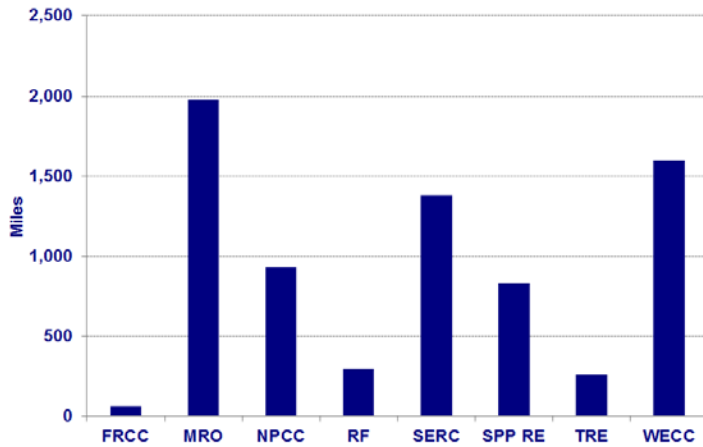
Electric Transmission Highlights

There were no transmission activities this month.

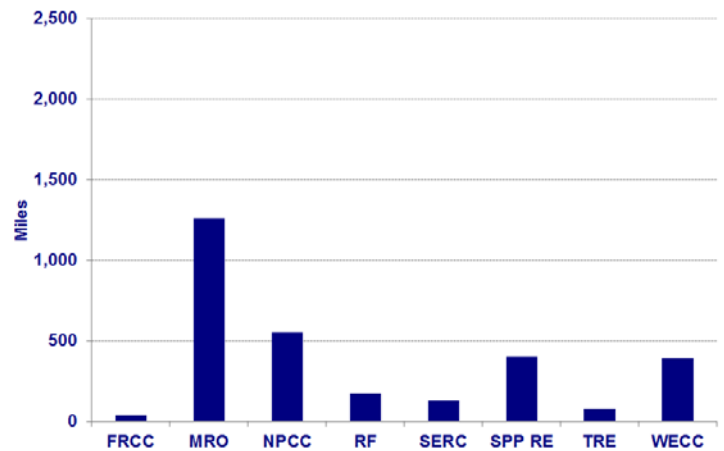
Voltage (kV)	Transmission Projects Completed				Proposed Transmission Projects In-Service by October 2020	
	September 2018	September 2017	January – September 2018 Cumulative	January – September 2017 Cumulative	High Probability of Completion	All
	Line Length (miles)					
≤230	0.0	6.0	231.7	329.3	762.3	2,076.5
345	0.0	0.0	413.2	218.5	1,882.6	4,030.6
500	0.0	0.0	69.4	0.0	371.0	1,227.4
Total U.S.	0.0	6.0	714.3	547.8	3,015.9	7,334.5

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

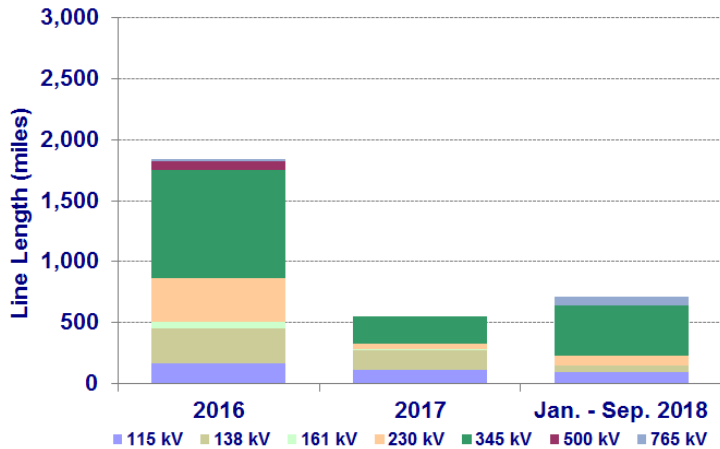
All Transmission Projects with a Proposed In-Service Date by October 2020



Transmission Projects with a High Probability of being completed by October 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.