



Office of Energy Projects Energy Infrastructure Update For July 2018

Natural Gas Highlights

- Southern placed into service its Fairburn Expansion Project, consisting of two new pipeline segments, an existing lateral to be acquired from Georgia Power Company, a new 18,000 HP compressor station, and three new meter stations, all located in Georgia. The project will supply 343 MMcf/d to markets in AL, GA, TN, SC, and FL.
- Millennium placed into service its CPV Valley Lateral Project in Orange County, NY which will provide 127 MMcf/d of capacity to CPV Valley's 630 MW new combined-cycle power plant in the Town of Wawayanda, NY.
- Tennessee received authorization to amend its Section 3 authorization and Presidential Permit to reflect the actual capacity at its PEMEX Border Crossing facilities in Hidalgo County, TX, increasing the authorized capacity from 185 to 468 MMcf/d.
- Tennessee received authorization to amend its Section 3 authorization and Presidential Permit to reflect the actual capacity at its Rio Bravo Border Crossing facilities in Hidalgo County, TX, increasing the authorized capacity from 320 to 420 MMcf/d.
- Southwest Gas received authorization for an amendment to its service area within which it may provide natural gas distribution service on the north shore of Lake Tahoe in California and Nevada.
- Southern Star received authorization to increase the maximum operating pressure on its Blue Mountain Chisholm Trail Lateral in Grady County, OK.
- Gulf South received authorization to abandon by sale to Tristate NLA 189.8 miles of pipeline and related facilities in Texas and Louisiana.
- Tristate received approval for its petition for a declaratory order regarding the jurisdiction of the 189.8 miles of pipeline it will purchase from Gulf South in Texas and Louisiana.
- Columbia Gas received authorization for its Eastern Panhandle Project, including 3.4 miles of pipeline from Fulton County, PA to Morgan County, WV, to provide 47.5 MMcf/d of firm capacity to Mountaineer Gas.
- Texas Eastern received authorization for its Texas Industrial Market Expansion and Louisiana Market Expansion Projects, which would provide an additional 83 MMcf/d of firm transportation into Texas Eastern's Zone WLA in Evangeline Parish, LA, and 75 MMcf/d of firm transportation into Zone WLA in Beauregard Parish, LA.
- Northwest received authorization to remove a section of its previously abandoned 8" North Seattle Lateral, replace it with 20" line, and rebuild the existing North Seattle/Everett meter station in Snohomish County, WA.
- WBI Energy received authorization to increase from 205 to 800 psi the maximum allowable operating pressure of its 6-inch Garland to Powell Lateral in Park and Big Horn Counties, WY.
- Gulf Crossing received authorization for abandonment of a lease capacity from Enable Oklahoma, and for Enable Oklahoma to abandon the limited jurisdiction certificate that authorized it to lease the capacity to Gulf Crossing. The lease had expired on July 2016. The Commission declined the request to grant retroactive abandonment.
- Enable Gas received authorization for its Allen Compressor Station Modification Project in Hughes County, OK, which would increase compression from 12,200 to 16,000 HP and increase pipeline capacity by 20 MMcf/d.
- Enable Midstream received authorization to decrease the Maximum Operating Pressure of its Line A-86, located in Jefferson County, MO. This change would not affect capacity or firm service.
- El Paso Natural Gas requests 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.
- Gulf South requests authorization for its Willis Lateral Project, including 19 miles of pipeline and 15,876 HP of new compression in Montgomery and San Jacinto County, TX, to supply 200 MMcf/d of natural gas to a proposed new power plant.
- Florida Gas requests authorization for its South Alabama Project, which includes replacing a compressor in Santa Rosa County, FL, and modifying a delivery point in Escambia County, AL to increase deliverability by 60 MMcf/d.
- Florida Gas requests authorization for its Okeechobee Expansion Project, including 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 that would deliver 12 MMcf/d to Florida Public Utilities Company.
- Sumas requests to amend its Section 3 authorization and Presidential Permit to reflect transfer of a portion of its ownership interest in the border crossing facility and natural gas pipeline in Whatscom County, WA, to PUGET and SOCCO and the subsequent transfer of SOCCO's resulting ownership interest to Dry Kilns.
- Texas Eastern requests authorization to abandon approximately 30 miles of lateral pipeline and associated facilities in Harrison and Marion Counties, TX, which have not been used since November 2016.



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- Northern Natural requests authorization for its Northern Lights 2019 & Rochester Projects, which would 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.
- Southern Star requests authorization to increase the maximum allowable operating pressure and maximum operating pressure on its Line QB in Johnson County, KS. This change would not increase the system's capacity.
- Columbia Gas requests authorization to abandon 12 injection/withdrawal wells and associated pipelines and appurtenances at five of its storage fields in Ashland, Medina, and Richland counties, in northern OH.
- Spire Storage West requests authorization to acquire the underground natural gas storage facility owned by Clear Creek Storage in Uinta County, WY, and reaffirmation of its authorization to charge market based rates following the acquisition.
- Clear Creek Storage requests authorization to abandon by combination with Spire Storage West its natural gas storage facility in Uinta County, WY.
- Columbia Gas requests authorization to abandon Benton Well 9507 and Laurel Wells 9097, 9239, and 9285, and to convert injection/withdrawal Benton Well 7612 to an observation well at its Benton and Laurel Gas Storage Fields in Hocking County, OH.
- D'Lo Gas Storage requests authorization to amend its DGS Gas Storage Project in Simpson and Rankin Counties, MS, including changes to the facility's layout which would reduce surface impacts by 14.1 acres, and the addition of a new Firm Wheeling Service to its Rate Schedule.



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Natural Gas Activities in July 2018

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service	2			441	14	18,000
Certificated	6			803	10	2,800
Proposed	5			593	54	61,829
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 July 31, 2018 January through July 31, 2017

Status	No. of Projects	Storage Capacity (BCF)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service	6			3,671.2	93.6	134,020
through July 31, 2017	14			4,994.3	255.8	262,094
Certificated	31			5,864.1	296.4	152,195
through July 31, 2017	19			9,927.9	1,271.5	623,464
Storage						
Placed in Service	0	0.0	0.0			0
through July 31, 2017	1	7.5	600.0			9,500
Certificated	4	3,600.3	152.0			0
through July 31, 2017	0	0.0	0.0			0
LNG (Import & Export)						
Placed in Service (Export)	1	0.0	825.0			0
through July 31, 2017	1	0.0	700.0			0
Certificated (Import/Export)	0	0.0	0.0			0
through July 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 Year to Date (through July 31, 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	0	0	0	0	0	0	0	0
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

Electric Generation Highlights

- Panda Hummel Station LLC's 1,064.0 MW natural gas-fired Sunbury Generation LLC in Snyder County, PA is online.
- PSEG Keys Energy Center LLC's 800.0 MW natural gas-fired Keys Energy Center in Prince Georges County, MD is online.
- NRG Texas LLC's 427.2 MW natural gas-fired Cielo Lindo Peaker Facility in Galveston County, TX is online.
- Denton Municipal Electric's 226.0 MW natural gas-fired Denton Energy Center in Denton County, TX is online.
- Southern Power Co's 148.0 MW Cactus Flats Wind Energy Project in Concho County, TX is online. The power generated is sold to General Mills Inc and General Motors Co under long-term contract.
- Perennial Wind LLC's 6.9 MW Perennial Fillmore Wind Farm in Fillmore County, NE is online. The power generated is sold to Perennial Public Power District under long-term contract.
- Shoreham Solar Commons LLC's 24.9 MW Shoreham Solar Commons in Suffolk County, NY is online. The power generated is sold to Long Island Power Authority under long-term contract.
- Invenergy LLC's 25.0 MW Tallgrass Solar Project in Suffolk County, NY is online. The power generated is sold to Long Island Power Authority under long-term contract.
- Adams Solar Center LLC's 15.0 MW Adams Solar Center in Jefferson County, OR is online. The power generated is sold to Pacific Power under long-term contract.
- Elbe Solar Center LLC's 15.0 MW Elbe Solar Center in Jefferson County, OR is online. The power generated is sold to Pacific Power under long-term contract.
- SolAmerica SC LLC has begun operation of the 10.0 MW solar powered Edgefield Davis Road Facility in Edgefield County, SC. The power generated is sold to South Carolina Electric & Gas Co under long-term contract.
- New Road Solar LLC's 10.0 MW New Road Solar Facility in Middlesex County, NJ is online.
- NJR Clean Energy Ventures Corp's 10.0 MW Old Bridge Solar Farm in Middlesex County, NJ is online.
- Standard Solar Inc's 9.8 MW Gallup Solar Project in McKinley County, NM is online.



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- Pacific Ethanol Inc's 5.0 MW Pacific Ethanol Solar Madera Facility in Madera County, CA is online.
- Sky Solar's 5.0 MW Windham Landfill Solar Facility in Windham County, VT is online.
- Kelly Solar LLC's 5.0 MW Kelly Project in Vance County, NC is online. The power generated is sold to Duke Energy Progress under long-term contract.
- Mustang Solar LLC's 5.0 MW Mustang Solar LLC in Moore County, NC is online. The power generated is sold to Duke Energy Progress under long-term contract.
- Novel Energy Solutions' 5.0 MW Novel Oya of Osakis Solar Facility in Douglas County, MN is online.
- DG Minnesota CSG LLC's 5.0 Sherburne North Solar Project in Sherburne County, MN is online. The power generated is sold to the Public Service Co of Colorado under long-term contract.
- U.S. Bureau of Reclamation's 11.0 MW Olmstead Hydroelectric Power Plant Replacement Expansion Project in Utah County, UT is online.

New Generation In-Service (New Build and Expansion)

Primary Fuel Type	July 2018		January – July 2018 Cumulative		January – July 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	20	1,717	64	10,248	65	10,770
Nuclear	0	0	1	4	1	102
Oil	1	1	11	18	12	39
Water	2	11	10	33	8	17
Wind	4	7	24	2,152	51	4,243
Biomass	0	0	11	66	23	181
Geothermal Steam	0	0	2	21	1	18
Solar	28	170	275	2,590	308	2,702
Waste Heat	0	0	2	80	1	220
Other *	0	0	13	5	20	1
Total	55	1,906	417	15,227	490	18,293

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	269.18	22.70%
Natural Gas	519.88	43.83%
Nuclear	107.63	9.07%
Oil	41.49	3.50%
Water	100.37	8.46%
Wind	91.08	7.68%
Biomass	16.23	1.37%
Geothermal Steam	3.78	0.32%
Solar	34.19	2.88%
Waste Heat	1.38	0.12%
Other*	0.79	0.07%
Total	1,186.00	100.00%

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 August 2021

Primary Fuel Type	Additions		Retirements	
	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)
Coal	1	17	66	16,317
Natural Gas	292	81,010	114	12,021
Nuclear	7	7,721	8	8,040
Oil	15	725	22	166
Water	253	14,905	19	633
Wind	498	91,388	1	50
Biomass	58	646	25	126
Geothermal Steam	22	1,076	0	0
Solar	1,836	57,573	5	2
Waste Heat	6	96	0	0
Other *	86	688	0	0
Total	3,074	255,845	260	37,355

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

- Southwestern Public Service has completed the 39.0 mile, 345 kV Kiowa – North Loving Transmission Project in NM.
- Entergy Gulf States has completed the 11.0 mile, 230 kV Richardson – Iberville Transmission Project in LA
- Southwestern Public Service and Northern States Power Company have completed the 21.0 mile, 115 kV Portales Loop Project in NM.

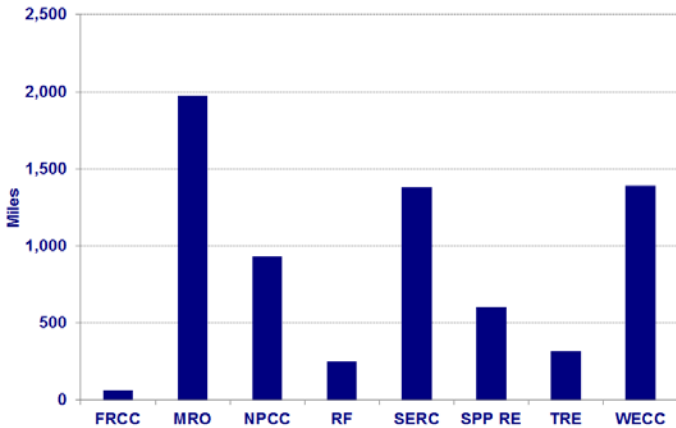
Voltage (kV)	Transmission Projects Completed				Proposed Transmission Projects In-Service by August 2020	
	July 2018	July 2017	January – July 2018 Cumulative	January – December 2017 Cumulative	High Probability of Completion	All
	Line Length (miles)					
≤230	32.0	0.0	182.0	316.9	702.4	2,082.5
345	39.0	0.0	327.2	218.5	1,657.6	3,805.6
500	0.0	0.0	69.4	0.0	386.0	1,022.4
Total U.S.	71.0	0.0	578.6	535.4	2,746.0	6,910.5

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

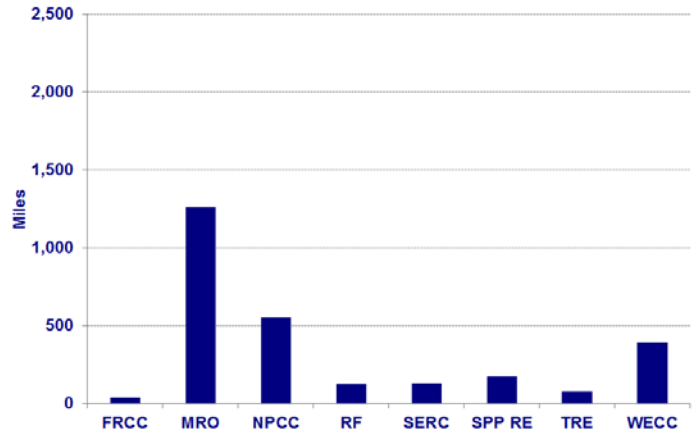


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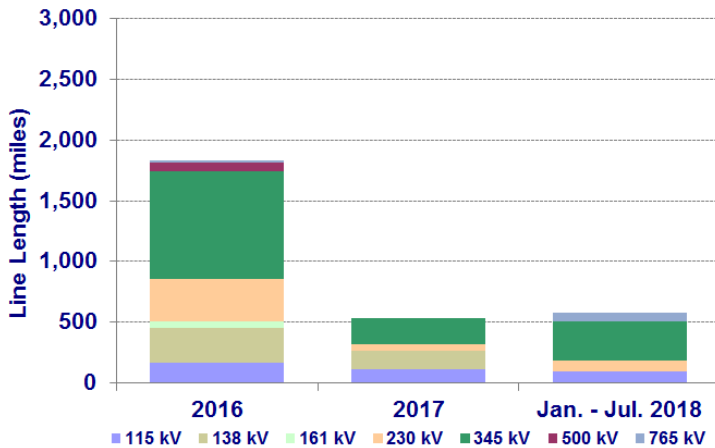
All Transmission Projects with a Proposed In-Service Date by August 2020



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