



Office of Energy Projects Energy Infrastructure Update For August 2019

Natural Gas Highlights

- Gulf South Pipeline received authorization to construct the 10,000 HP Westlake Compressor Station, including approximately 0.3 miles of 16-inch pipeline and other appurtenances in Calcasieu Parish, LA.
- Columbia Gas received authorization to place in service Section 4 of its Line 8000 Replacement Project which extends from Keyser Station in Mineral County, WV to LaVale Station in Allegany County, MD.
- Transco received authorization to place in service the Bergen Loop and the Central Manhattan Meter of its Rivervale South to Market Project.
- Dominion Cove Point LNG received authorization to place in service its Eastern Market Access Project, which will provide 294 MMcf/d of capacity to serve markets in the Mid-Atlantic region.
- Corpus Christi LNG received authorization to place in service Train 2 of its LNG terminal in San Patricio and Nueces Counties, TX, which adds 0.72 MMcf/d of export capacity to the facility. The proposed terminal includes three trains, which would provide a total of 2,140 MMcf/d and 400 MMcf/d of export and import deliverability, respectively.
- America Midstream (AlaTenn) received authorization for its Greene Interconnect Project, which includes abandoning in place four compressors at its Decatur Compression Station in Limestone County, AL and replacing them with two new compressors. The project would increase compression by 2,095 HP and downstream capacity by 39 MMcf/d.
- Gulf South received authorization to replace two compressors at its Arnaudville Compressor Station in St. Landry Parish, LA, with an 11,107 HP unit. This project would not affect daily design capacity or maximum daily capability.
- Texas Eastern received authorization to abandon approximately 30 miles of lateral pipeline and associated facilities in Harrison and Marion Counties, TX, which have not been used since 2016.
- Stingray Pipeline received authorization to abandon three compressor units at its Station 701 in Cameron Parish, LA and one unit at its Station 702 in the Gulf of Mexico. These units have not operated in over a year.
- NGPL received authorization to remove 6,984 feet of its Louisiana Line Nos. 1 and 2 and replace them with 9,500 feet of new pipeline in Jefferson County, TX in order to relocate the lines from land to be used to construct the Golden Pass LNG Export Terminal.
- Texas Gas received authorization to plug and abandon Injection/Withdrawal Well No. 5710 and related infrastructure at its Leesville Storage Field Lawrence County, IN. The abandonment will have no effect on the certificated physical parameters of the field.
- Monroe Gas Storage received authorization to abandon certain certificated gas storage capacity and reclassify the remaining storage capacity at its Monroe gas storage facility in Northeast Mississippi, which would reduce the working gas capacity of the field from 12 to 7 Bcf.
- Northern Natural requests authorization for its Palmyra to South Sioux City A-Line Abandonment Project, including abandoning 118 miles of older pipeline in Otoe, Lancaster, Saunders, Dodge, Burt, Thurston, and Dakota Counties, NE, and building 4.2 miles of pipeline and associated appurtenances in Otoe and Dodge Counties, NE.
- Texas Eastern requests authorization for its Bailey East Mine Panel 11J Project, including excavating and temporarily elevating portions of Lines 10, 15, 25, and 30 in Marshall County, WV, to maintain pipeline integrity during longwall mining activities by CONSOL.
- Equitrans requests authorization to abandon its Copley Certificated Gathering Facilities in Lewis and Braxton Counties, WV, to Diversified Gas and Oil, and EQM Gathering Opco.
- Transco received authorization to abandon 20.3 miles of a lateral line from Ship Shoal Block 169 to Ship Shoal Block 72 and appurtenant metering facilities in Federal waters, offshore LA.
- Spire Storage West requests authorization for its Storage Wells at Clear Creek Project, which consists of converting four observation wells at its Clear Creek Plant storage facility in Uinta County, WY, to Injection/Withdrawal wells. This project would allow the Clear Creek Plant to operate at its maximum certificated capacity on a more predictable basis.
- Spire Storage requests authorization for its Belle Butte Storage Optimization Project, which involves converting two observation wells to injection/withdrawal wells in Uinta County, WY, and connecting flowlines and appurtenances to improve the Belle Butte Storage Field's performance. The project will not impact the storage capacity or deliverability.
- Tennessee Gas requests authorization to abandon inactive injection/storage Well 5564 at its Hebron Storage Field in Potter County, PA.
- Commonwealth LNG requests authorization to construct an LNG export plant comprised of six liquefaction trains with an export capacity of 1.2 Bcf/d, six storage tanks, one marine berth, and a 1.44 Bcf/d 3-mile pipeline connecting the facility to the Kinetica and Bridgeline Pipelines. The project is located in Cameron Parish, LA.



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Natural Gas Activities in August 2019

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service	4			684	15	41,370
Certificated	3			10	2	13,202
Proposed	2			0	6	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)	1	10.14	713			0
Certificated (Import/Export)	0	0	0			0
Proposed (Import/Export)	1	0	1210			0

Source: Staff Database

Natural Gas Activities through August 31, 2019 January through August 31, 2018

Status	No. of Projects	Storage Capacity (BCF)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service	9			4,785.0	16.6	323,770
through August 31, 2018	9			4,716.2	100.5	183,800
Certificated	22			10,250.9	428.4	614,413
through August 31, 2018	39			8,428.1	639.6	281,095
Storage						
Placed in Service	0	0.0	0.0			0
through August 31, 2018	0	0.0	0.0			0
Certificated	3	1.0	429.0			10,000
through August 31, 2018	4	3,600.3	152.0			0
LNG (Import & Export)						
Placed in Service (Export)	4	23.7	2,839.0			0
through August 31, 2018	1	0.0	825.0			0
Certificated (Import/Export)	5	33.6	9,459.0			0
through August 31, 2018	0	0.0	0.0			0

Source: Staff Database



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Hydropower Highlights (nonfederal)

- Big Wood Canal Company filed an application to raise the capacity of its Jim Knight Project No. 7686 from 0.289 MW to 0.475 MW. The project is located on the South Gooding main canal in Gooding County, ID.
- Big Wood Canal Company filed an application to raise the capacity of its Sagebrush Project No. 8046 from 0.350 MW to 0.475 MW. The project is located on the South Gooding main canal in Lincoln County, ID.
- Fremont Irrigation Company filed an application for an exemption for a small conduit hydroelectric facility for the proposed 2.000 MW Mill Meadow Pipeline Project No. 15005. The project is located on the Mill Meadow irrigation pipeline in Wayne County, UT.
- Great River Hydro, LLC was issued an order raising the capacity of its Deerfield River Project No. 2323 from 76.910 MW to 77.140 MW. The project is located on the Deerfield River in Berkshire and Franklin Counties, MA, and Bennington and Windham Counties, VT.
- Kenai Hydro, LLC was issued an original license for the 5.000 MW Grant Lake Hydroelectric Project No. 13212. The project is located on Grant Creek near the community of Moose Pass within the Kenai Peninsula Borough, AK.

Hydropower Project Activities in August 2019

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	2	0.311	0	0	0	0	2	0.311
Conduit Exemption	1	2.000	0	0	0	0	1	2.000
Issued								
License	1	5.000	0	0	0	0	1	5.000
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
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

Source: Staff Database

Hydropower Project Activities Year to Date (through August 31, 2019)

Status	Conventional		Pumped Storage		Hydrokinetic		Total No. of Projects	Total Capacity (MW)
	No.	Capacity (MW)	No.	Capacity (MW)	No.	Capacity (MW)		
Filed								
License	3	3.764	0	0	1	20.000	4	23.764
10-MW Exemption	0	0	0	0	0	0	0	0
Capacity Amendment	4	4.211	0	0	0	0	4	4.211
Conduit Exemption	1	2.000	0	0	0	0	1	2.000
Issued								
License	1	5.000	1	393.300	1	0.070	3	398.370
10-MW Exemption	1	0.140	0	0	0	0	1	0.140
Capacity Amendment	2	3.870	0	0	0	0	2	3.870
Conduit Exemption	0	0	0	0	0	0	0	0



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Status	Conventional		Pumped Storage		Hydrokinetic		Total No. of Projects	Total Capacity (MW)
	No.	Capacity (MW)	No.	Capacity (MW)	No.	Capacity (MW)		
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

Source: Staff Database

Electric Generation Highlights

- Palmetto Plains Solar Project LLC's 106.0 MW Palmetto Plains Solar Project in Orangeburg County, SC is online. The power generated is sold to Dominion Energy South Carolina under long-term contract.
- Public Service Electric & Gas Co.'s 10.0 MW Taylors Lane Solar Project in Burlington County, NJ is online.
- ORNI 43 LLC's 7.3 MW Tungsten Mountain solar expansion in Churchill County, NV is online.
- University of Alaska's 17.0 MW coal fired expansion at the University of Alaska – Fairbanks in Fairbanks North Star Borough, AK is online.

New Generation In-Service (New Build and Expansion)

Primary Fuel Type	August 2019		January – August 2019 Cumulative		January – August 2018 Cumulative	
	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)
Coal	1	17	3	62	4	10
Natural Gas	0	0	70	7,573	91	12,361
Nuclear	0	0	1	155	3	30
Oil	0	0	14	74	24	44
Water	0	0	16	105	10	115
Wind	0	0	25	2,863	33	2,231
Biomass	0	0	7	63	12	101
Geothermal Steam	0	0	0	0	3	36
Solar	6	128	243	2,253	382	2,976
Waste Heat	0	0	0	0	1	50
Other *	0	0	23	0	21	2
Total	7	145	402	13,148	584	17,956

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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Total Available Installed Generating Capacity

	Installed Capacity (GW)	% of Total Capacity
Coal	256.24	21.37%
Natural Gas	534.61	44.58%
Nuclear	106.33	8.87%
Oil	39.86	3.32%
Water	100.78	8.40%
Wind	99.95	8.33%
Biomass	16.03	1.34%
Geothermal Steam	3.84	0.32%
Solar	39.57	3.30%
Waste Heat	1.32	0.11%
Other*	0.77	0.06%
Total	1,199.28	100.00%

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.

Generation Capacity Additions and Retirements (September 2019 – August 2022)

From ABB Velocity Suite's Generating Unit Capacity Dataset

Primary Fuel Type	All Proposed Additions		Proposed Additions Under Construction**		Proposed Retirements	
	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)
Coal	1	77	0	0	58	18,957
Natural Gas	225	58,907	101	31,169	111	11,412
Nuclear	9	7,781	1	1,100	6	5,951
Oil	12	685	2	5	28	3,021
Water	220	14,581	81	1,882	15	600
Wind	555	100,205	176	27,979	2	320
Biomass	54	505	25	431	31	98
Geothermal Steam	18	860	6	280	0	0
Solar	2,642	91,326	581	17,858	1	1
Waste Heat	4	54	2	29	0	0
Other *	156	475	37	15	1	2
Total	3,896	275,456	1,012	80,748	253	40,362

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.

** Under Constructions includes units that have started site preparation or construction. It also includes units that are in the testing phase.



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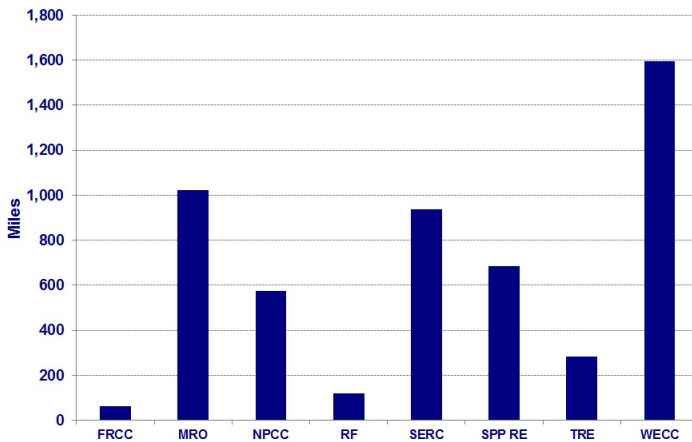
Electric Transmission Highlights

There were no transmission activities this month.

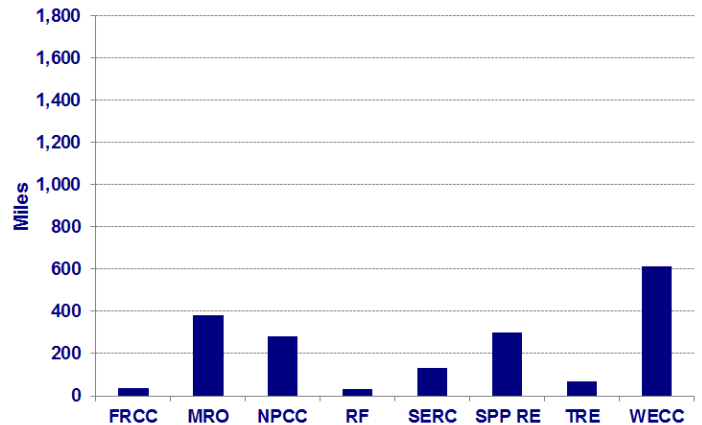
Voltage (kV)	Transmission Projects Completed				Proposed Transmission Projects In-Service by September 2021	
	August 2019	August 2018	January – August 2019 Cumulative	January – December 2018 Cumulative	Planned and Under Construction	All
	Line Length (miles)					
≤230	0.0	5.0	122.9	521.5	540.0	1,292.8
345	0.0	83.0	371.5	847.2	637.4	2,129.1
500	0.0	0.0	7.7	69.4	670.0	1,859.0
Total U.S.	0.0	88.0	502.1	1,438.1	1,847.4	5,280.9

Sources: Data derived from North American Electric Reliability Corporation (NERC) Electricity Supply and Demand (ES&D) and U.S. Electric Transmission Projects ©The C Three Group, LLC.

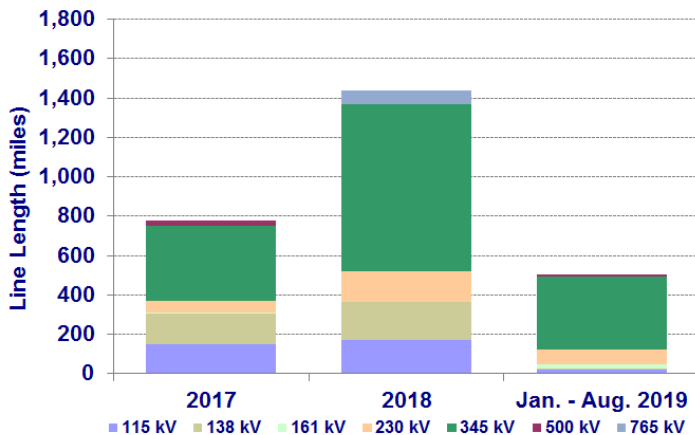
All Transmission Projects with a Proposed In-Service Date by September 2021



Planned and Under Construction Transmission Projects with a Proposed In-Service Date by September 2021



New Transmission Projects by Voltage



Sources: Data derived from North American Electric Reliability Corporation (NERC) Electricity Supply and Demand (ES&D) and U.S. Electric Transmission Projects ©The C Three Group, LLC.

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