



Office of Energy Projects Energy Infrastructure Update *For September 2016*

Natural Gas Highlights

- Equitrans received authorization to place into service its Ohio Valley Connector Project (except the interconnection with Texas Eastern) which will provide 850 MMcf/d of capacity to Rockies Express Pipeline for delivery to mid-continent and Gulf Coast Markets.
- Texas Eastern received authorization to place into service the Phase I facilities of its Gulf Markets Expansion Project which will provide 250 MMcf/d of the 650 MMcf/d authorized bi-directional and mainline capacity on its system from the Northeast to the Gulf Coast region of LA and TX.
- Columbia received authorization to place into service its Utica Access Project which will provide 205 MMcf/d of capacity from a new interconnection with Dominion to an interconnection with Columbia's existing Line X-52-M1, all located in Kanawha and Clay Counties, WV.
- East Tennessee received authorization to place into service its Loudon Expansion Project which will provide 40 MMcf/d of capacity to the Tate & Lyle's manufacturing facility in Loudon County, TN.
- Columbia received authorization to place into service the Phase III facilities of its Line MB Expansion Project which will provide improved reliability for customers located in Baltimore and Harford Counties, MD.
- Columbia received authorization to place into service pipeline facilities (except those facilities crossing the Licking River) which will replace deteriorating pipeline facilities on Columbia's E-System in KY.
- Tennessee received authorization to construct and operate its Broad Run Expansion Project which will provide 200 MMcf/d of capacity in WV, KY, and TN to meet market needs in the southeastern U.S.
- Paulsboro Pipeline received authorization to construct and operate its 45-Foot Project which will provide an additional 20 MMcf/d of capacity to Paulsboro Refining Company located in Paulsboro, NJ.
- Tennessee received authorization to construct and operate its Susquehanna West Project which will provide 145 MMcf/d of east-to-west capacity on Tennessee's Line 300 in Susquehanna and Potter Counties, PA.
- ANR received authorization to construct and operate its Collierville Expansion Project which will expand delivery and pressures on its system to serve TVA's pending 1,070 MW Allen Combined Cycle Power Plant in Memphis, TN.
- National Fuel received authorization to construct, operate, replace, and abandon facilities on its Line T2KNY, Line TNY, and Line KNY located in Erie County, NY. These modifications will provide an additional 2.6 MMcf/d of capacity.
- Kinetica Deepwater Express (formerly TC Offshore) received authorization to abandon by sale to Avocet LNG its jurisdictional facilities of its Grand Chenier System and associated appurtenances located offshore LA in the Gulf of Mexico and onshore LA. The jurisdictional facilities will become non-jurisdictional upon abandonment by sale.
- Columbia requested authorization to abandon, replace, construct, and operate facilities as part of its B System Project located in Fairfield and Franklin Counties, Ohio. The project would provide a continued safe and reliable service to meet the energy needs in the region.
- Texas Eastern requested authorization to excavate, elevate, and/or replace certain sections of pipeline and appurtenant facilities as part of its Marshall County Mine Panel 17W Project located in Marshall County, WV. This project would ensure the safe and efficient operation of Texas Eastern's existing system during the planned longwall mining activities of Marshall County Coal Company in Panel 17W of its Marshall County Mine.
- WBI Energy withdrew its request to construct and operate its Demicks Lake Pipeline Project which would have provided 221.5 MMcf/d of capacity to ONEOK Rockies Midstream's proposed Demicks Lake gas plant to be located west of Kenne, ND.



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Natural Gas Activities in September 2016

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service	6			1,345.0	85.5	36,000
Certificated	5			367.6	18.9	139,221
Proposed	2			0.0	23.2	0
Storage						
Placed in Service	0	0.0	0.0			0
Certificated	0	0.0	0.0			0
Proposed	0	0.0	0.0			0
LNG (Import & Export)						
Placed in Service	0	0	0			0
Certificated (Import/Export)	0	0	0			0
Proposed (Import)	0	0	0			0

Source: Staff Database

Natural Gas Activities through September 30, 2016 January through September 30, 2015

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service through September 30, 2015	24 16			4,609.3 5,505.7	274.6 203.5	129,695 127,925
Certificated through September 30, 2015	46 26			14,382.5 7,541.0	1,136.5 360.6	1,251,340 247,078
Storage						
Placed in Service through September 30, 2015	0 5	0.0 11.4	0 53			0 4,800
Certificated through September 30, 2015	0 2	0.0 2.7	0 0			0 0
LNG (Import & Export)						
Placed in Service through September 30, 2015	1 0	0 0	700 0			0 0
Certificated (Import/Export) through September 30, 2015	4 1	10.2 0	3,181 1,400			0 0

Source: Staff Database



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Hydropower Highlights (nonfederal)

- Baker County, Oregon was issued an original license for the 3.4 MW Mason Dam Hydroelectric Project No. 12686. The project will be located at the U.S. Bureau of Reclamation's Mason Dam on the Powder River, near Baker City, in Baker County, OR.
- Juneau Hydropower, Inc. was issued an original license for the 19.8 MW Sweetheart Lake Hydroelectric Project No. 13563. The project will be located on Sweetheart Creek in the Tongass National Forest, approximately 30 miles south of the City and Borough of Juneau, AK.
- Uniontown Hydro, LLC was issued an original license for the 66.6 MW Uniontown Hydroelectric Project No. 12958. The project will be located at the U.S. Army Corps of Engineers' John T. Myers Locks and Dam on the Ohio River, in Union County, KY, and Posey County, IN.
- Northern Illinois Hydropower, LLC was issued an original license for the 10.96 MW Dresden Island Hydroelectric Project No. 12626. The project will be located at the U.S. Army Corps of Engineers' Dresden Island Lock and Dam on the Illinois River, near the Town of Morris, in Grundy County, IL.

Hydropower Project Activities in September 2016

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	4	100.760	0	0	0	0	4	100.760
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	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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Hydropower Project Activities Year to Date (through September 30, 2016)

Status	Conventional		Pumped Storage		Hydrokinetic		Total No. of Projects	Total Capacity (MW)
	No.	Capacity (MW)	No.	Capacity (MW)	No.	Capacity (MW)		
Filed								
License	2.5	50.049	0.5	300.000	0	0	3	350.049
10-MW Exemption	1	0.360	0	0	0	0	1	0.360
Capacity Amendment	1	0.100	0	0	0	0	1	0.100
Conduit Exemption	2	0.530	0	0	0	0	2	0.530
Issued								
License	10	151.822	0	0	0	0	10	151.822
10-MW Exemption	1	0.220	0	0	0	0	1	0.220
Capacity Amendment	3	6.310	0	0	0	0	3	6.310
Conduit Exemption	0	0	0	0	0	0	0	0
Placed in Service								
License	3.5	204.700	0	0	0	0	3.5	204.700
10-MW Exemption	0	0	0	0	0	0	0	0
Capacity Amendment	2.5	26.500	0	0	0	0	2.5	26.500
Conduit Exemption	0	0	0	0	0	0	0	0

Source: Staff Database

Electric Generation Highlights

- South Texas Electric Cooperative Inc.'s 224.4 MW natural gas-fired Red Gate Power Plant Project in Hidalgo County, TX is online.
- El Paso Electric Company's 132 MW natural gas-fired Montana Power Station Phase 3 Expansion Project in El Paso County, TX is online.
- The United States Army's 7.9 MW natural gas-fired Aberdeen Proving Ground CHP Project in Harford County, MD is online.
- RE Tranquility LLC's 205.3 MW RE Tranquility Solar Project in Fresno County, CA is online. The power generated is sold to Southern California Edison Co. under long-term contract.
- 63SU 8ME LLC's 155 MW Springbok Solar Farm Phase 2 Expansion Project in Kern County, CA is online. The power generated is sold to Southern California Public Power Authority under long-term contract.
- Enterprise Solar LLC's 80 MW Enterprise Solar Project in Iron County, UT is online. The power generated is sold to PacifiCorp under long-term contract.
- NextEra River Bend Solar LLC's 75 MW River Bend Solar Project in Lauderdale County, AL is online. The power generated is sold to Tennessee Valley Authority under long-term contract.
- RE Barren Ridge 1 LLC's 60 MW RE Cinco Solar Project in Kern County, CA is online. The power generated is sold to Los Angeles Department of Water and Power under long-term contract.
- ID Solar 1 LLC's 40 MW Idaho Solar 1 Project in Ada County, ID is online. The power generated is sold to Idaho Power Co. under long-term contract.
- Blythe Solar II LLC's 32 MW Blythe Solar II Project in Riverside County, CA is online. The power generated is sold to Southern California Edison Co. under long-term contract.
- Nicolis Solar LLC's 19 MW Nicolis Solar Project in Kern County, CA is online. The power generated is sold to Southern California Edison Co. under long-term contract.
- Nevada Valley Solar Solutions II LLC's 17.5 MW Valley Electric Association Community Solar Project in Ada County, ID is online. The power generated is sold to Idaho Power Co. under long-term contract.
- Valley Electric and Bombard Renewable Energy's 15 MW Pahrump Community Solar Project in Clark County, NV is online.



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- Tropico Solar LLC's 14 MW Tropico Solar Project in Kern County, CA is online. The power generated is sold to Southern California Edison Co. under long-term contract.
- OneEnergy Wye Mills Solar LLC's 13.7 MW Wye Mills Solar Project in Queen Anne's County, MD is online. The power generated is sold to Johns Hopkins University under long-term contract.
- Flint Hill Solar LLC's 7 MW Flint Hill Solar Project in Moore County, NC is online. The power generated is sold to North Carolina Electric Membership Corp. under long-term contract.
- Duke Energy Florida's 5.1 MW Perry Solar Project in Taylor County, FL is online.
- Indiana Michigan Power Co.'s 5 MW Olive Solar Power Project in Saint Joseph County, IN online.
- BQ Energy's 4 MW Steel Sun Solar Farm Phase 1 Project in Erie County, NY is online.
- Indiana Municipal Power Agency's 4 MW Washington Solar Park Project in Deviess County, IN is online.
- KDC Solar LLC's 4 MW Seabrook Retirement Community Solar Project in Monmouth County, NJ is online.

New Generation In-Service (New Build and Expansion)

Primary Fuel Type	September 2016		January – September 2016 Cumulative		January – September 2015 Cumulative	
	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)
Coal	0	0	3	45	2	6
Natural Gas	14	364	81	7,449	57	5,403
Nuclear	0	0	0	0	2	152
Oil	0	0	6	33	15	21
Water	0	0	28	250	21	158
Wind	0	0	34	2,661	37	4,136
Biomass	0	0	26	55	33	267
Geothermal Steam	0	0	0	0	2	64
Solar	38	818	271	4,212	219	1,552
Waste Heat	0	0	1	15	0	0
Other *	1	0	7	0	9	0
Total	54	1,182	457	14,720	397	11,759

Sources: Data derived from Velocity Suite, ABB Inc. and The C Three Group LLC which include plants with nameplate capacity of 1 MW or greater. The data may be subject to update.

Total Available Installed Generating Capacity

	Installed Capacity (GW)	% of Total Capacity
Coal	293.73	24.99%
Natural Gas	510.26	43.42%
Nuclear	107.36	9.14%
Oil	44.98	3.83%
Water	100.35	8.54%
Wind	76.66	6.52%
Biomass	16.64	1.42%
Geothermal Steam	3.88	0.33%
Solar	19.39	1.65%
Waste Heat	1.17	0.10%
Other *	0.76	0.07%
Total	1,175.20	100.00%

Sources: Data derived from Velocity Suite, ABB Inc. and The C Three Group LLC which include plants with nameplate capacity of 1 MW or greater. 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.



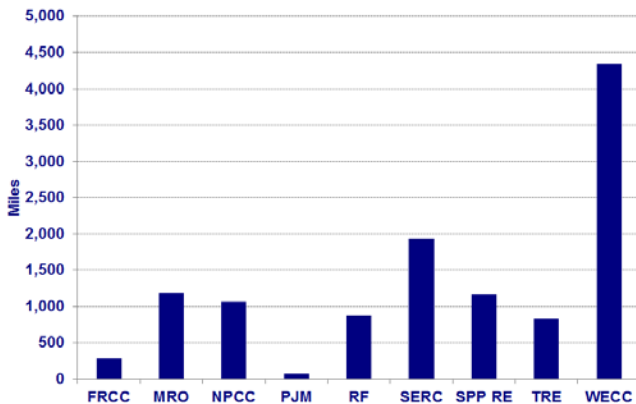
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Electric Transmission Highlights

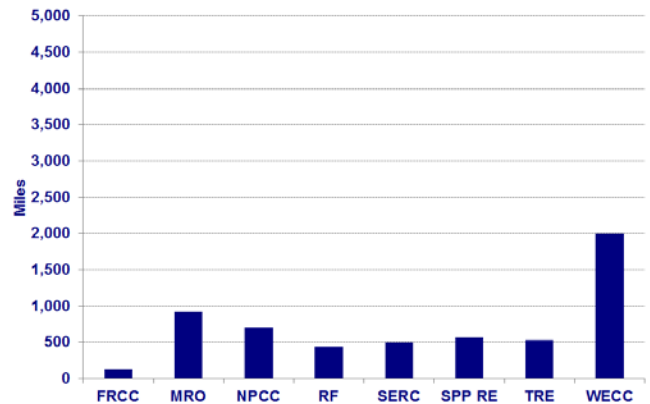
- Southwestern Public Service has completed the 41.5 mile, 115 kV Curry County Interchange - Bailey County Interchange. The Curry – Baily County Interstate Project connects NM and TX with an estimated cost of \$36.1 million.
- CapX2020 partners have completed the final 36 mile segment of the 345 kV Hampton – Rochester – LaCrosse Transmission Project.

Voltage (kV)	Transmission Projects Completed				Proposed Transmission Projects In-Service by September 2018	
	September 2016	September 2015	January – September 2016 Cumulative	January – December 2015 Cumulative	High Probability of Completion	All
	Line Length (miles)					
≤230	41.5	15.1	285.9	694.3	2,654.3	5,122.9
345	36.0	82.0	199.4	1,230.5	2,208.9	3,734.7
500	0.0	0.0	43.0	355.0	925.3	2,884.3
Total U.S.	77.5	97.1	528.3	2,279.8	5,788.5	11,741.9

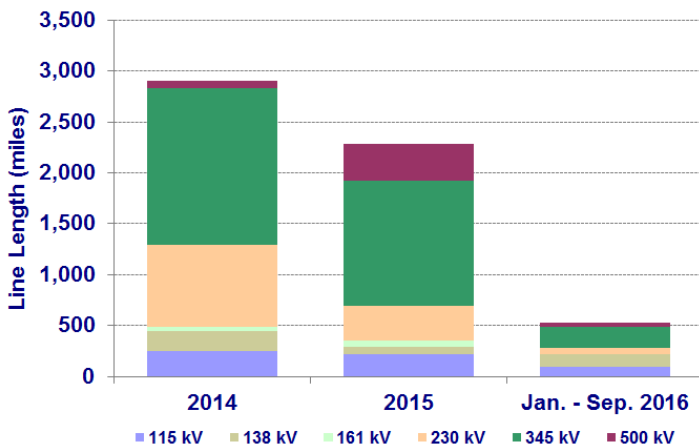
All Transmission Projects with a Proposed In-Service Date by September 2018



Transmission Projects with a High Probability of being completed by September 2018



New Transmission Projects by Voltage



Sources: Data derived from Staff Database and U.S. Electric Transmission Projects ©2016 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.