



Office of Energy Projects Energy Infrastructure Update For May 2016

Natural Gas Highlights

- Sabine Pass LNG received authorization to place into service Train 1 at its export LNG terminal currently under construction in Cameron Parish, LA. Train 1 will provide an export deliverability of 700 MMcf/d.
- Dominion Cove Point LNG received authorization to place into service its St. Charles Transportation Project which will provide 132 MMcf/d of capacity to CPV Maryland's proposed 725 megawatt power plant in Charles County, MD.
- Texas Gas received authorization to place into service compressor and pipeline facilities located in Ouachita Parish, LA, as part of its Ohio-Louisiana Access Project. These facilities will provide 175 MMcf/d of bi-directional flow from the northern end of the Texas Gas system to markets in the Midwest and South.
- Trans-Pecos Pipeline received authorization to site, construct, and operate a border crossing (The Presidio Crossing Project) on the International Boundary between the U.S. and Mexico near the City of Presidio in Presidio County, TX. The border facilities will provide 1,300 MMcf/d of export/import capacity between the U.S. and Mexico.
- Comanche Trail Pipeline received authorization to site, construct, and operate a border crossing (The San Elizario Crossing Project) on the International Boundary between the U.S. and Mexico near the City of San Elizario in El Paso County, TX. The border facilities will provide 1,100 MMcf/d of export/import capacity between the U.S. and Mexico.
- Cameron LNG received authorization to construct and operate Trains 4 and 5 at its export LNG terminal currently under construction near City of Hackberry in Cameron and Calcasieu Parishes, LA. Trains 4 and 5 will provide 1,411 MMcf/d of export deliverability.
- Transco received authorization to abandon by sale to UGI Mt. Bethel Pipeline and UGI Mt. Bethel Pipeline received authorization to acquire by sale and operate the 12-inch diameter Allentown Lateral and related facilities located in Northampton County, PA.
- Eagle Rock Exploration received authorization to transfer its Section 3 authorization and Presidential Permit to Crescent Point Energy and to amend the authorization and permit to reflect Crescent Point Energy as current owner and operator of the existing border crossing facility located at the International Boundary between the U.S. and Canada in Glacier County, MT.
- Rio Grande LNG and Rio Bravo Pipeline requested authorization to construct and operate an LNG export terminal (providing 3,600 MMcf/d of deliverability) near Brownsville in Cameron County, TX, and pipeline facilities which would provide 4,500 MMcf/d of capacity to the proposed terminal.
- Transco commenced the Commission's pre-filing process to construct and operate its Northeast Supply Enhancement Project which would provide 400 MMcf/d of capacity for shippers from Transco's Station 195 in York County, PA to an existing interconnection between the Lower NY Bay Lateral and the Rockaway Delivery Lateral located offshore NY.
- Eastern Shore commenced the Commission's pre-filing process to construct and operate its 2017 Expansion Project which would provide 86.44 MMcf/d of capacity on its system in PA, MD, and NJ to meet market demand.
- Oregon LNG and Oregon Pipeline withdrew their proposals to construct and operate an LNG import and export terminal in the Town of Warrenton in Clatsop County, OR, and associated pipeline facilities which would have provided 1,250 MMcf/d of capacity to the proposed terminal. The Oregon LNG terminal would have provided an import and export deliverability of 500 MMcf/d and 1,250 MMcf/d, respectively.
- Northwest withdrew its proposal to construct and operate its Washington Expansion Project which would have provided 750 MMcf/d of incremental capacity from Sumas, WA to Woodland, WA, to serve the withdrawn Oregon LNG import/export terminal.

Natural Gas Activities in May 2016

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service	3			307.0	0.0	41,515
Certificated	2			2,400.0	0.42	0
Proposed	3			4,986.4	223.8	656,550
Storage						
Placed in Service	0	0.0	0.0			0
Certificated	0	0.0	0.0			0
Proposed	0	0.0	0.0			0



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LNG (Import & Export)						
Placed in Service	1	0	700			0
Certificated (Import/Export)	1	3.4	1,411			0
Proposed (Export)	1	15.6	3,600			0

Source: Staff Database

Natural Gas Activities through May 31, 2016 January through May 31, 2015

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service	12			2,598.6	92.1	88,315
through May 31, 2015	8			2,915.7	66.2	84,095
Certificated	26			10,197.9	864.2	687,125
Through May 31, 2015	17			5,419.0	282.2	191,673
Storage						
Placed in Service	0	0.0	0			0
through May 31, 2015	2	2.4	53			0
Certificated	0	0.0	0			0
through May 31, 2015	1	1.7	0			0
LNG (Import & Export)						
Placed in Service	1	0	700			0
Through May 31, 2015	0	0	0			0
Certificated (Import/Export)	2	10.2	2,491			0
through May 31, 2015	1	0	1,400			0

Source: Staff Database

Hydropower Highlights (nonfederal)

- FFP Project 92, LLC was issued an original license for the proposed 5.0 MW Kentucky River Lock and Dam No. 11 Hydroelectric Project No. 14276. The license application was prepared and processed using a two-year licensing process developed under the Hydropower Regulatory Efficiency Act of 2013. The project will be located at the Kentucky River Authority's Lock and Dam No. 11 on the Kentucky River, in Madison and Estill Counties, KY.
- New England Hydropower Company, LLC was issued a small-hydro exemption from licensing for the proposed 0.220 MW Hanover Pond Dam Hydroelectric Project No. 14550. The project will be located on the Quinnipiac River in the City of Meriden, in New Haven County, CT.
- The Utah Board of Water Resources filed an original license application for the proposed Lake Powell Pipeline Project No. 12966. The project would utilize an approximately 140 mile water pipeline to provide a total of 43.549 MW of conventional hydropower capacity and 300.0 MW of pumped storage capacity. The project would convey water from the U.S. Bureau of Reclamation's Lake Powell to Sand Hollow reservoir near St. George, UT. The project would be located in Washington and Kane Counties, UT, and Mohave and Coconino Counties, AZ.
- The Town of Payson, AZ filed a conduit exemption application for the proposed 0.200 MW C.C. Cragin Raw Water Supply Line Small Conduit Hydroelectric Project No. 14776. The project would be located near the town of Payson in Gila County, AZ.



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Hydropower Project Activities in May 2016

Status	Conventional		Pumped Storage		Hydrokinetic		Total No. of Projects	Total Capacity (MW)
	No.	Capacity (MW)	No.	Capacity (MW)	No.	Capacity (MW)		
Filed								
License	0.5	43.549	0.5	300.000	0	0	1	343.549
10-MW Exemption	0	0	0	0	0	0	0	0
Capacity Amendment	0	0	0	0	0	0	0	0
Conduit Exemption	1	0.200	0	0	0	0	1	0.200
Issued								
License	1	5.000	0	0	0	0	1	5.000
10-MW Exemption	1	0.220	0	0	0	0	1	0.220
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

Hydropower Project Activities Year to Date (through May 31, 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	300.0	0	0	3	350.049
10-MW Exemption	0	0	0	0	0	0	0	0
Capacity Amendment	1	0.100	0	0	0	0	1	0.100
Conduit Exemption	1	0.200	0	0	0	0	1	0.200
Issued								
License	5	44.262	0	0	0	0	5	44.262
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	198.60	0	0	0	0	3	198.60
10-MW Exemption	0	0	0	0	0	0	0	0
Capacity Amendment	2	23.60	0	0	0	0	2	23.600
Conduit Exemption	0	0	0	0	0	0	0	0

Source: Staff Database



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Electric Generation Highlights

- Wolverine Power Corp.'s 227 MW natural gas-fired Alpine Power Plant Phase 1 Project in Otsego County, MI is online.
- El Paso Electric Corp.'s 132 MW natural gas-fired Montana Power Station Phase 2 Expansion Project in El Paso County, TX is online.
- Empire District Electric Corp.'s 94 MW natural gas-fired Riverton Conversion Project in Cherokee County, KS is online.
- Morgan City LA's 84 MW natural gas-fired Morgan City Phase 5 Expansion Project in Saint Mary Parish, LA is online.
- Tiverton Power LLC's 22 MW natural gas-fired Tiverton Power Plant Rerate Project in Newport County, RI is online.
- Silver State Solar Power South LLC's 35 MW Silver State South Solar Phase 8 Expansion Project in Clark County, NV is online. The power generated is sold to Southern California Edison Co. under long-term contract.
- Blythe Solar 110 LLC's 34.8 MW Blythe Solar Phase 3 Expansion Project in Riverside County, CA is online.
- Avalon Solar Partners II LLC's 16 MW Avalon Solar Project in Zima County, AZ is online. The power generated is sold to Tucson Electric Power Co. under long-term contract.
- Church Hill Solar Farm LLC's 6 MW Church Hill Solar Farm Project in Queen Anne's County, MD is online.
- Community Energy Inc.'s 5 MW Upper Freehold Solar Project in Monmouth County, NJ is online.
- Seaboard Solar LLC's 5 MW Seaboard Solar Project in Northampton County, NC is online. The power generated is sold to Virginia Electric and Power Co. under long-term contract.
- REP Energy LLC's 2 MW Novato Solar Project in Marin County, CA is online. The power generated is sold to Marin Clean Energy under long-term contract.
- Colbeck's Corner, LLC's 200 MW Grandview Wind Farm Phase 2 Expansion Project in Carson County, TX is online.
- Patterson Pass Windfarm LLC's 19.8 MW Patterson Pass Project in Alameda County, CA is online. The power generated is sold to Southern California Edison Co. under long-term contract.
- Northern Water's 1.2 MW Granby Hydro Project in Grand County, CO is online. The power generated is sold to Mountain Parks Electric Inc. under long-term contract.

New Generation In-Service (New Build and Expansion)

Primary Fuel Type	May 2016		January – May 2016 Cumulative		January – May 2015 Cumulative	
	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)
Coal	0	0	0	0	1	3
Natural Gas	12	572	40	4,309	36	1,796
Nuclear	0	0	0	0	0	0
Oil	1	5	2	7	2	2
Water	1	1	24	190	16	2,025
Wind	2	220	17	1,622	16	1,851
Biomass	0	0	16	42	15	115
Geothermal Steam	0	0	0	0	1	45
Solar	19	150	120	1,662	111	679
Waste Heat	0	0	0	0	0	0
Other *	0	0	3	0	6	0
Total	35	947	222	7,832	204	6,516

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.



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Total Available Installed Generating Capacity

	Installed Capacity (GW)	% of Total Capacity
Coal	296.33	25.36%
Natural Gas	504.71	43.19
Nuclear	107.06	9.16%
Oil	44.92	3.84%
Water	100.28	8.58%
Wind	75.59	6.47%
Biomass	16.65	1.42%
Geothermal Steam	3.90	0.33%
Solar	17.26	1.48%
Waste Heat	1.16	0.10%
Other*	0.77	0.07%
Total	1,168.61	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.

Electric Transmission Highlights

- American Electric Power Co. Inc. and Oncor Electric Delivery Co. LLC announced plans for the 219 mile, 345 kV Far West Texas Transmission Line Project in Texas. The project is estimated to cost \$423 million and is expected to be placed into service by 2022.
- The U.S. Bureau of Land Management has issued the final environmental impact statement for PacifiCorp's Gateway South Transmission Project. The 500 kV interstate project is part of the Energy Gateway Project.

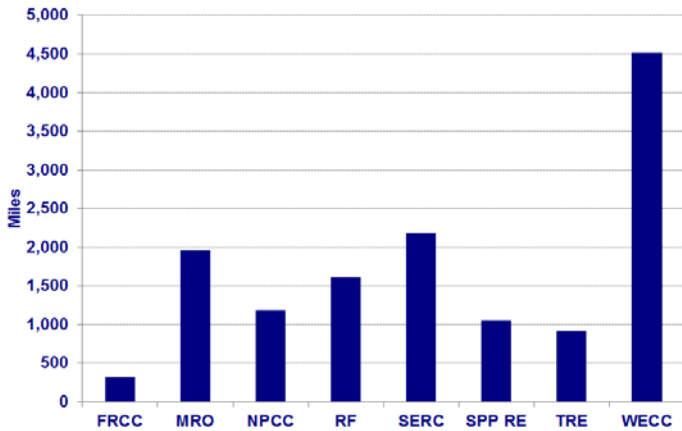
Voltage (kV)	Transmission Projects Completed				Proposed Transmission Projects In-Service by May 2018	
	May 2016	May 2015	January – May 2016 Cumulative	January – December 2015 Cumulative	High Probability of Completion	All
	Line Length (miles)					
≤230	0.0	115.3	42.0	616.0	2,579.6	5,223.4
345	0.0	448.4	0.0	1,163.5	2,405.7	4,745.5
500	0.0	256.0	0.0	294.0	621.9	3,773.9
Total U.S.	0.0	819.7	42.0	2,073.5	5,607.2	13,742.8

Sources: Data derived from Staff Database and U.S. Electric Transmission Projects ©2016 The C Three Group, LLC.

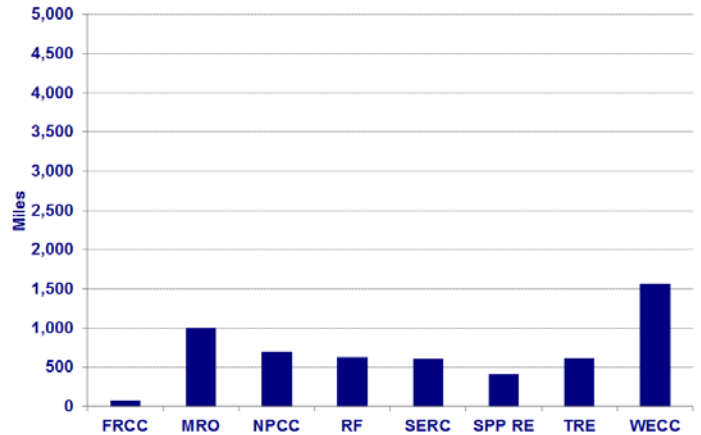


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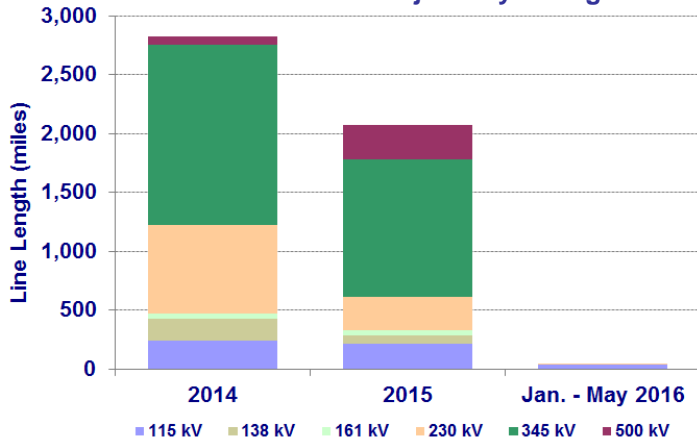
All Transmission Projects with a Proposed In-Service Date by May 2018



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