



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

Natural Gas Highlights

- Kaiser-Frontier received authorization to place into service the Northern and Middle Segments of its Silo Pipeline in Laramie County, WY which will provide 5 MMcf/d of capacity and prevent the flaring of gas.
- Transwestern placed into service its Malaga Lateral Project which will provide 200 MMcf/d of capacity from a new cryogenic processing plant in Eddy County, NM
- DBM Pipeline placed into service a residue pipeline which will provide 459 MMcf/d of capacity from the Ramsey processing plant located in Reeves County, TX to an interconnection with El Paso Natural Gas Pipeline in Eddy County, NM.
- Texas Gas received authorization to place into service a portion of the compression facilities authorized in its Ohio-Louisiana Access Project. The compression facilities located in IN and LA will provide 451 MMcf/d of capacity from the northern end of the Texas Gas system to markets in the Midwest and South.
- El Paso increased its export capacity by 42.6 MMcf/d at its existing Monument 90 border crossing located at the International Boundary between the U.S. and Mexico near the town of Naco in Cochise County, AZ.
- Rockies Express received authorization to convert the existing Seneca Lateral facilities located in Noble and Monroe Counties, OH from Section 311 authorization to Section 7 jurisdiction. The Seneca Lateral will provide 600 MMcf/d of capacity.
- Transco received authorization to construct and operate its Garden State Expansion Project which will provide 180 MMcf/d of capacity from Transco's Station 210 in Mercer County, NJ to a new delivery point with New Jersey Natural Gas Company in Burlington County, NJ.
- Northwest Pipeline received authorization to construct and operate its Kalama Lateral Project which will provide 320 MMcf/d of capacity to Northwest Innovation Works' proposed Methanol Plant located in Cowlitz County, WA.
- Magnolia LNG received authorization to construct and operate an LNG export terminal near Lake Charles, Calcasieu County, LA. The export terminal will provide 1,080 MMcf/d of export deliverability.
- Kinder Morgan Louisiana received authorization to construct and operate its Lake Charles Expansion Project which will provide 1,400 MMcf/d of north-to-south capacity for delivery to Magnolia LNG's authorized but not yet constructed export terminal located in Calcasieu Parish, LA.
- Dominion received authorization to construct and operate its New Market Project which will provide 112 MMcf/d of capacity to serve markets in the Northeast and Mid-Atlantic regions.
- UGI Sunbury received authorization to construct and operate its Sunbury Pipeline Project which will provide 200 MMcf/d of capacity to serve markets in central PA including a proposed electric generation facility in Snyder County, PA.
- Columbia received authorization to increase the maximum allowable operating pressure (MAOP) of its Line PM-117 located in Johnson and Martin Counties, KY and to replace facilities on its Line P-240 located in Lawrence County, KY. The increase in MAOP will provide an additional 20 MMcf/d of capacity on Columbia's existing system.
- Equitrans received authorization to abandon and replace pipeline facilities as part of its TP-371 Pipeline Replacement Project on its existing system in Armstrong and Indiana Counties, PA. The facilities will improve system integrity, reliability, and safety to its existing system.
- Dominion received authorization to abandon gathering and processing facilities located in WV and PA by sale to Dominion Gathering & Processing, Inc.
- Equitrans received authorization to acquire and operate the Allegheny Valley Connector facilities located in western PA from its affiliate Allegheny LLC and to replace Allegheny LLC as the lessor in the lease of 2 Bcf of working gas capacity to Rager Mountain.
- Columbia Gas requests authorization to construct and operate its Mountaineer XPress Project which would provide 2,700 MMcf/d of capacity from receipt points in WV to pooling points on the Columbia Gas system and to Columbia Gulf at Leach, KY.
- Columbia Gulf requests authorization to construct and operate its Gulf XPress Project which would provide 860 MMcf/d of capacity from its existing Leach receipt point with Columbia Gas in KY to delivery points on the Columbia Gulf system in MS and LA.
- National Fuel requests authorization to construct, operate, replace, and abandon facilities on its Line T2KNY, Line TNY, and Line KNY located in Erie County, NY. The proposed modifications would provide 2.6 MMcf/d of additional capacity.
- National Grid LNG requests authorization to construct and operate liquefaction facilities (Field Point Liquefaction Project) which would provide 20 MMcf/d of deliverability at its existing LNG facility in Providence, RI.
- Tres Palacios Gas Storage requests authorization to amend its certificated working gas volume at its Tres Palacios Gas Storage Facility located in CO and TX from 38.4 Bcf to 30.99 Bcf.



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Natural Gas Activities in April 2016

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service	5			1,157.6	40.4	0
Certificated	8			2,832.0	74.4	163,503
Proposed	3			3,562.6	178.3	498,200
Storage						
Placed in Service	0	0.0	0.0			0
Certificated	0	0.0	0.0			0
Proposed	1	0.0	20.0			0
LNG (Import & Export)						
Placed in Service	0	0	0			0
Certificated (Import/Export)	1	6.8	1,080			0
Proposed (Export)	0	0.0	0			0

Source: Staff Database

Natural Gas Activities through April 30, 2016 January through April 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 April 30, 2015	11 7			2,291.6 2,268.7	92.1 63.0	46,800 84,095
Certificated Through April 30, 2015	24 13			7,797.9 4,037.0	863.8 244.6	687,125 176,673
Storage						
Placed in Service through April 30, 2015	0 2	0.0 2.4	0 53			0 0
Certificated through April 30, 2015	0 1	0.0 1.7	0 0			0 0
LNG (Import & Export)						
Placed in Service Through April 30, 2015	0 0	0 0	0 0			0 0
Certificated (Import/Export) through April 30, 2015	1 1	6.8 0	1,080 1,400			0 0

Source: Staff Database

Hydropower Highlights (nonfederal)

- The City of Hamilton, OH placed in service Meldahl Project No. 12667 with an installed capacity of 105.0 MW. The project is located on the Ohio River near Augusta, KY.
- The City of Brainerd, MI and its Public Utility Commission was issued an order amending license to raise the capacity of its Brainerd Hydroelectric Project No. 2533 from 3.160 MW to 3.760 MW. The project is located on the Mississippi River in the City of Brainerd, Crow Wing County, MI.



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- The Town of Pownal, VT was issued an order amending exemption to raise the capacity of its Pownal Hydroelectric Project No. 6795 from 0.4 MW to 0.5 MW. The project is located on the Hoosic River in the Town of Pownal, Bennington County, VT.
- Alaska Village Electric Cooperative, Inc. was issued an original license for the proposed 0.262 MW Old Harbor Hydroelectric Project No. 13272. The project will be located on East Fork Mountain Creek, near the Town of Old Harbor, Kodiak Island Borough, AK.
- Tygart LLC was issued an original license for the proposed 30 MW Tygart Hydroelectric Project No. 12613. The project will be located at the U.S. Army Corps of Engineers' Tygart Dam on the Tygart River, in the City of Grafton, Taylor County, WV.
- Kenai Hydro, LLC filed an original license application for the proposed 5.0 MW Grant Lake Hydroelectric Project No. 13212. The project would be located on Grant Lake and Grant Creek, near the Town of Moose Pass, Kenai Peninsula Borough, AK.

Hydropower Project Activities in April 2016

Status	Conventional		Pumped Storage		Hydrokinetic		Total No. of Projects	Total Capacity (MW)
	No.	Capacity (MW)	No.	Capacity (MW)	No.	Capacity (MW)		
Filed								
License	1	5.000	0	0	0	0	1	5.000
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
Issued								
License	2	30.262	0	0	0	0	2	30.262
10-MW Exemption	0	0	0	0	0	0	0	0
Capacity Amendment	2	0.7000	0	0	0	0	2	0.7000
Conduit Exemption	0	0	0	0	0	0	0	0
Placed in Service								
License	1	105.000	0	0	0	0	1	105.000
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

Hydropower Project Activities Year to Date (through April 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	6.500	0	0	0	0	2	6.500
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	0	0	0	0	0	0	0	0
Issued								
License	4	39.262	0	0	0	0	4	39.262
10-MW Exemption	0	0	0	0	0	0	0	0
Capacity Amendment	3	6.310	0	0	0	0	3	6.310
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	3	198.600	0	0	0	0	3	198.600
10-MW Exemption	0	0	0	0	0	0	0	0
Capacity Amendment	2	23.600	0	0	0	0	2	23.600
Conduit Exemption	0	0	0	0	0	0	0	0

Source: Staff Database

Electric Generation Highlights

- Dominion Electric Power's natural gas-fired 1,358 MW Brunswick County Power Station Project in Brunswick County, VA is online.
- Florida Power and Light Co.'s 1,277 MW natural gas-fired Port Everglades Expansion Project in Broward County, FL is online.
- Panda Liberty LLC's 936 MW natural gas-fired Panda Liberty Project in Bradford County, PA is online. The power generated is sold to PJM Interconnection LLC under long-term contract.
- Sky Global Power One LLC's 51.6 MW natural gas-fired Sky Global Power One Project in Colorado County, TX is online. A portion of the power generated is sold to San Bernard Electric Coop. Inc. under long-term contract.
- Midwest Energy Inc.'s 27.6 MW natural gas-fired Goodman Energy Center Expansion Project in Ellis County, KS is online.
- Kingfisher Wind LLC's 298 MW Kingfisher Wind Farm Project in Kingfisher County, OK is online. The power generated is sold to Gulf Power Co. under long-term contract.
- Grant Wind LLC's 150 MW Grant Wind Project in Grant County, OK is online. The power generated is sold to East Texas Electric Coop. Inc., Western Farmers Electric Coop., and Northeast Texas Electric Coop., all under long-term contracts.
- Desert Stateline LLC's 224 MW Desert Stateline Solar Project in San Bernardino County, CA is online. The power generated is sold to Southern California Edison Co., under long-term contract.
- CSOLAR IV West LLC's 149 MW Imperial Solar Project in Imperial County, CA is online. The power generated is sold to San Diego Gas and Electric Co. under long-term contract.
- Blythe Solar 110 LLC's 36.3 MW Blythe Solar 110 Phase II Expansion Project in Riverside County, CA is online.
- Louisville Gas and Electric Co. and Kentucky Utilities Co.'s 10 MW E.W. Brown Solar Expansion Project in Mercer County, KY is online.
- Silver State Solar Power South LLC's 72 MW Silver State South Solar Phase 6 and 7 Expansion Project in Clark County, NV is online. The power generated is sold to Southern California Edison Co. under long-term contract.
- Kingbird Solar A LLC and Kingbird Solar B LLC's 40 MW Kingbird Solar Project in Kern County, CA is online. A portion of the power generated is sold to Pasadena Water and Power Department under long-term contract.
- McCoy Solar LLC's 21 MW McCoy Solar Phase 7 Expansion Project in Riverside County, CA is online. The power generated is sold to Southern California Edison Co. under long-term contract.
- Ecos Energy LLC's 20 MW Southbridge Solar Project in Worcester County, MA is online. The power generated is sold to National Grid USA under long-term- contract.
- Sunlight Partners LLC's 6.2 MW Star Solar Project in Durham County, NC is online. The power generated is sold to Duke Energy North Carolinas under long-term contract.
- Sophie Solar LLC's 6 MW Sophie Solar Project in Cleveland County, NC is online. The power generated is sold to Duke Energy North Carolinas under long-term contract.
- Duke Energy Florida Solar Solutions LLC's 5 MW Epcot Solar Project in Orange County, FL is online.



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- Garysburg Solar LLC's 5 MW Garysburg Solar Project in Northampton County, NC is online. The power generated is sold to Virginia Electric and Power Co. under long-term contract.
- Gaston Solar LLC's 5 MW Gaston Solar Project in Northampton County, NC is online. The power generated is sold to Virginia Electric and Power Co. under long-term contract.
- Woodland Solar LLC's 5 MW Woodland Solar Project in Northampton County, NC is online. The power generated is sold to Virginia Electric and Power Co. under long-term contract.
- SolarCity Corp's 4.5 MW Genentech Oceanside Solar Project in San Diego County, CA is online.
- Consumers Energy Co.'s 3 MW Grand Valley Energy Solar Gardens Project in Ottawa County, MI is online.

New Generation In-Service (New Build and Expansion)

Primary Fuel Type	April 2016		January – April 2016 Cumulative		January – April 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	13	3,650	27	3,736	15	633
Nuclear	0	0	0	0	0	0
Oil	0	0	1	2	1	1
Water	20	108	23	189	13	24
Wind	2	448	13	1,376	12	1,372
Biomass	5	8	14	41	14	59
Geothermal Steam	0	0	0	0	1	45
Solar	24	475	88	1,424	86	509
Waste Heat	0	0	0	0	0	0
Other *	1	0	3	0	1	0
Total	65	4,689	169	6,767	144	2,645

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	300.52	25.69%
Natural Gas	503.29	43.02%
Nuclear	107.03	9.15%
Oil	44.51	3.81%
Water	100.04	8.55%
Wind	75.22	6.43%
Biomass	16.71	1.43%
Geothermal Steam	3.90	0.33%
Solar	16.66	1.42%
Waste Heat	1.16	0.10%
Other*	0.77	0.07%
Total	1,169.81	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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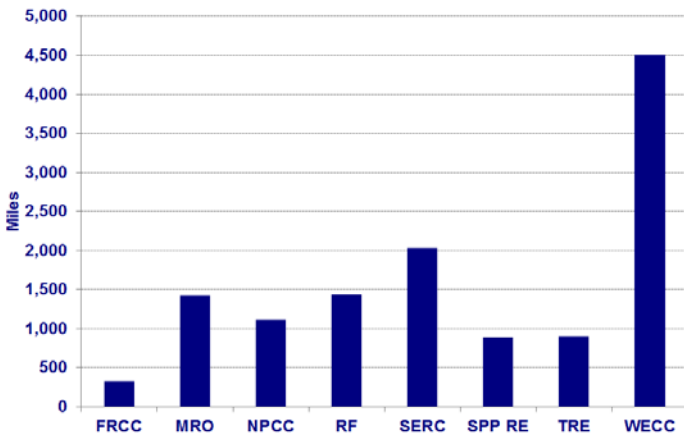
Electric Transmission Highlights

- Pacific Gas and Electric Company has completed the 4.0 mile, 230 kV Embarcadero - Potrero Transmission Line in CA.

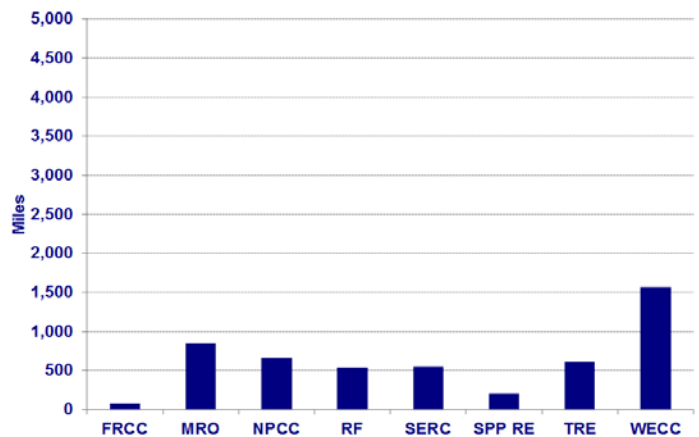
Voltage (kV)	Transmission Projects Completed				Proposed Transmission Projects In-Service by April 2018	
	April 2016	April 2015	January – April 2016 Cumulative	January – December 2015 Cumulative	High Probability of Completion	All
	Line Length (miles)					
≤230	4.0	14.0	42.0	616.0	2,298.0	4,587.8
345	0.0	203.0	0.0	1,163.5	2,136.3	4,367.0
500	0.0	0.0	0.0	294.0	617.0	3,683.5
Total U.S.	4.0	217.0	42.0	2,073.5	5,051.3	12,638.3

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

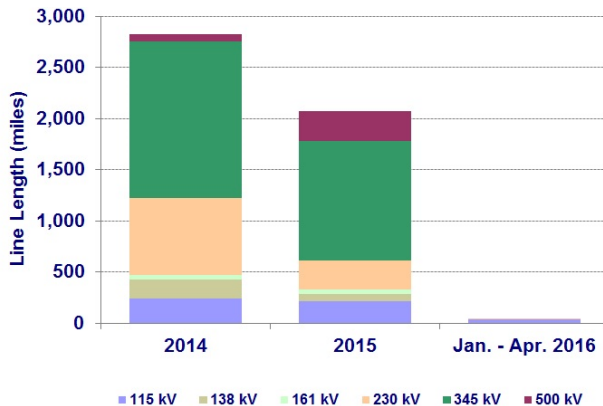
All Transmission Projects with a Proposed In-Service Date by April 2018



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