



## Office of Energy Projects Energy Infrastructure Update *For November 2015*

### Natural Gas Highlights

- Texas Eastern received authorization to place into service its OPEN Project which will provide 550 MMcf/d of capacity from receipt points in OH to delivery points in the Gulf Coast area.
- Dominion Carolina Gas received authorization to place into service its Edgemoor Compressor Project which will provide 45 MMcf/d of capacity for two shippers with delivery points in NC.
- Transco received authorization to place into service a portion of its Leidy Southeast Expansion Project which will provide 130 MMcf/d of capacity from receipt points in Clinton County, PA to Transco's Station 210 Zone 6 Pooling Point in Mercer County, NJ.
- UGI LNG received authorization to place into service its Temple LNG Liquefaction Upgrade Project which will add a nitrogen-driven LNG subcooler system, thus, increasing the refrigeration capacity at its LNG storage facility located in Berks County, PA.
- The Commission, in response to the remand from the US Court of Appeals for the District of Columbia Circuit, concluded that, when considered additively, impacts from Tennessee's Northeast Upgrade Project and Tennessee's three other projects are not significant, and when the projects are considered cumulatively with the Northeast Upgrade Project, there are no significant cumulative impacts.
- DBM Pipeline received authorization to construct and operate a residue pipeline which would provide 459 MMcf/d of capacity from the Ramsey processing plant located in Reeves County, TX to an interconnection with El Paso Natural Gas in Eddy County, NM.
- Dominion received authorization to construct and operate its Lebanon West II Project which will provide 130 MMcf/d of capacity for a shipper from an interconnection located in Butler County, PA to an interconnection with Texas Gas in Warren County, OH.
- Millennium requests authorization to construct and operate its CPV Valley Lateral Project which would provide 130 MMcf/d of capacity to CPV Valley's proposed 650 MW combined-cycle electric generator located in the Town of Wawayanda, NY.
- NEXUS Gas Transmission requests authorization to construct and operate its NEXUS Pipeline Project which would provide 1,500 MMcf/d of capacity to markets in northern OH and southeastern MI.
- Texas Eastern requests authorization to construct and operate its Texas Eastern Appalachian Lease Project. This project would provide 950.2 MMcf/d of capacity to markets in the Midwest via a lease to NEXUS Gas Transmission.
- Tennessee requests authorization to construct and operate its Northeast Energy Direct Project which would provide 1,200 MMcf/d of capacity from Troy, PA to Wright, NY, and 1,300 MMcf/d of capacity from Wright, NY to Dracut, MA to serve markets in the Northeast, particularly New England.
- Sabine Pass LNG requests authorization to construct and operate truck loading facilities at the Sabine Pass LNG terminal in Cameron Parish, LA. This project would be used to load LNG from the terminal for delivery via trucks or ISO containers.
- Delfin LNG requests authorization to amend its application to construct and operate facilities in Cameron Parish, LA to serve Delfin LNG's proposed offshore LNG export terminal located in the Gulf of Mexico. The amendment would provide an additional 800 MMcf/d of capacity for a total of 2,300 MMcf/d.
- Magnum Gas Storage requests authorization to amend its application to construct and operate a storage facility in Millard, Juab, and Utah Counties, UT. The amendment would relocate the approved natural gas storage caverns and associated surface facilities within the previously analyzed Project area and authorize Magnum Gas Storage to offer a firm wheeling transportation service under market-based rates.
- Eastern Shore request authorization to amend its White Oak Mainline Expansion Project by reducing its Kemblesville Loop pipeline to reduce certain environmental impacts that would result from construction of the loop.
- High Island Offshore System requests authorization to abandon certain offshore facilities located in the Gulf of Mexico. The proposed abandonment would assist with the development of Delfin LNG's proposed offshore LNG terminal.
- Algonquin commenced the Commission's pre-filing process to construct and operate its Access Northeast Project. This project would provide 925 MMcf/d of capacity on Algonquin's system in NY, CT, RI, and MA, and 6.8 Bcf of LNG storage capacity at the proposed Access Northeast LNG facility in Acushnet, MA to serve electric generation requirements in New England.



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### Natural Gas Activities in November 2015

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
<b>Pipeline</b>						
Placed in Service	3			725.0	88.2	50,800
Certificated	2			589.0	19.1	10,915
Proposed	6			5,605.2	811.5	565,300
<b>Storage</b>						
Placed in Service	1	0.0	0.0			2,000
Certificated	0	0.0	0.0			0
Proposed	0	0.0	0.0			0
<b>LNG (Import &amp; Export)</b>						
Placed in Service	0	0	0			0
Certificated (Import/Export)	0	0	0			0
Proposed (Export)	0	0	0			0

Source: Staff Database

### Natural Gas Activities through November 30, 2015 January through November 30, 2014

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
<b>Pipeline</b>						
Placed in Service through November 30, 2014	28 30			7,004.4 7,080.4	376.4 303.7	241,797 252,959
Certificated through November 30, 2014	38 27			10,614.2 7,273.6	433.6 262.4	337,173 306,123
<b>Storage</b>						
Placed in Service through November 30, 2014	6 9	11.4 29.75	53 1,546			6,800 8,755
Certificated through November 30, 2014	2 4	2.7 1.2	0 50			0 2,500
<b>LNG (Import &amp; Export)</b>						
Placed in Service through November 30, 2014	0 0	0 0	0 0			0 0
Certificated (Import/Export) through November 30, 2014	1 4	0 3.4	1,400 4,885			0 0

Source: Staff Database

## Hydropower Highlights (nonfederal)

- Clark Canyon Hydro, LLC filed an original license application for the proposed 4.7 MW Clark Canyon Dam Hydroelectric Project No. 14677. The project would be located at the existing U.S. Bureau of Reclamation's Clark Canyon Dam on the Beaverhead River, near the Town of Dillon, in Beaverhead County, MT.



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### Nonfederal Hydropower Project Activities in November 2015

Status	Conventional		Pumped Storage		Hydrokinetic		Total No. of Projects	Total Capacity (MW)
	No.	Capacity (MW)	No.	Capacity (MW)	No.	Capacity (MW)		
<b>Filed</b>								
License	1	4.700	0	0	0	0	1	4.700
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
<b>Issued</b>								
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
<b>Placed in Service</b>								
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

### Nonfederal Hydropower Project Activities Year to Date (through November 30, 2015)

Status	Conventional		Pumped Storage		Hydrokinetic		Total No. of Projects	Total Capacity (MW)
	No.	Capacity (MW)	No.	Capacity (MW)	No.	Capacity (MW)		
<b>Filed</b>								
License	3	10.300	3	1,033.300	0	0	6	1,043.600
10-MW Exemption	1	0.192	0	0	0	0	1	0.192
Capacity Amendment	1	0.600	0	0	0	0	1	0.600
Conduit Exemption	0	0	0	0	0	0	0	0
<b>Issued</b>								
License	5	17.918	0	0	0	0	5	17.918
10-MW Exemption	1	0.600	0	0	0	0	1	0.600
Capacity Amendment	0	0	0	0	0	0	0	0
Conduit Exemption	0	0	0	0	0	0	0	0
<b>Placed in Service</b>								
License	0	0	1	21.250	0	0	1	21.250
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



## Office of Energy Projects Energy Infrastructure Update For November 2015

### Electric Generation Highlights

- Xcel Energy's 200 MW Pleasant Valley Wind Project in Dodge and Mower Counties, MN is online. The power generated is sold to Northern States Power Co. under long-term contract.
- Qualcomm Inc.'s 4 MW natural gas-fired Qualcomm Q-Addition Cogeneration Plant and Data Center Expansion Project in San Diego County, CA is online.
- Indiana Municipal Power Agency's 2 MW Pendleton Solar Park in Madison County, IN is online.
- SPW Solar Holdings 1 LLC's 20 MW Sierra Solar Greenworks Project in Los Angeles County, CA is online. The power generated is sold to Southern California Edison Co. under long-term contract.
- Border Winds Energy LLC's 150 MW Border Winds Project in Rolette County, ND is online.
- E.ON Climate & Renewables' 20 MW E.ON Climate Kern County Solar Project in Kern County, CA is online. The power generated is sold to San Diego Gas and Electric Co. under long-term contract.
- Solar Star Nellis Air Force Base LLC's 15.5 MW Solar Star Expansion Project in Clark County, NV is online.
- Solar Star California XXXII LLC's 16.3 MW UC Davis Large Solar Plant Project in Solano County, CA is online.

### New Generation In-Service (New Build and Expansion)

Primary Fuel Type	November 2015		January – November 2015 Cumulative		January – November 2014 Cumulative	
	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)
Coal	0	0	1	3	2	136
Natural Gas	2	5	48	5,127	62	6,829
Nuclear	0	0	0	0	10	266
Oil	0	0	10	15	19	96
Water	0	0	20	151	18	229
Wind	3	350	40	4,533	47	2,984
Biomass	2	2	26	305	71	236
Geothermal Steam	0	0	1	45	7	36
Solar	7	76	207	1,619	321	2,630
Waste Heat	0	0	0	0	4	75
Other *	3	0	11	0	8	23
<b>Total</b>	<b>17</b>	<b>433</b>	<b>364</b>	<b>11,798</b>	<b>569</b>	<b>13,541</b>

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 Installed Operating Generating Capacity

	Installed Capacity (GW)	% of Total Capacity
Coal	306.04	26.26%
Natural Gas	500.61	42.96%
Nuclear	107.03	9.18%
Oil	44.84	3.85%
Water	100.06	8.59%
Wind	70.59	6.06%
Biomass	16.73	1.44%
Geothermal Steam	3.90	0.33%
Solar	13.60	1.17%
Waste Heat	1.15	0.10%
Other*	0.77	0.07%
<b>Total</b>	<b>1,165.33</b>	<b>100.00%</b>

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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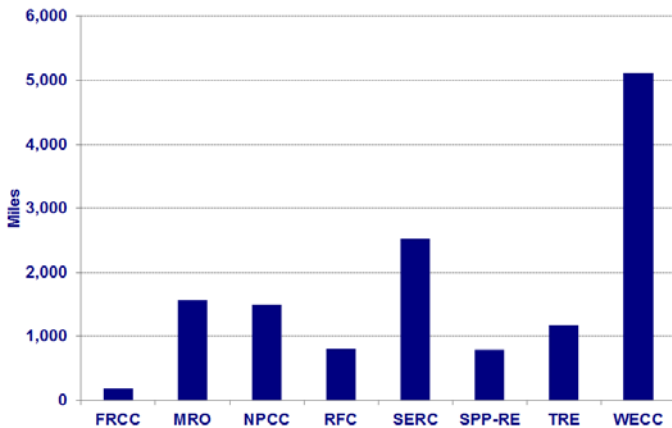
## Electric Transmission Highlights

- The Western Area Power Administration and the U.S. Bureau of Land Management released the final environmental impact statement for the proposed Southline Transmission Project. The 360 mile interstate transmission project will connect southern AZ and NM. Construction is expected to start in 2016 and be completed in 2018 with an estimated cost of \$800 million.

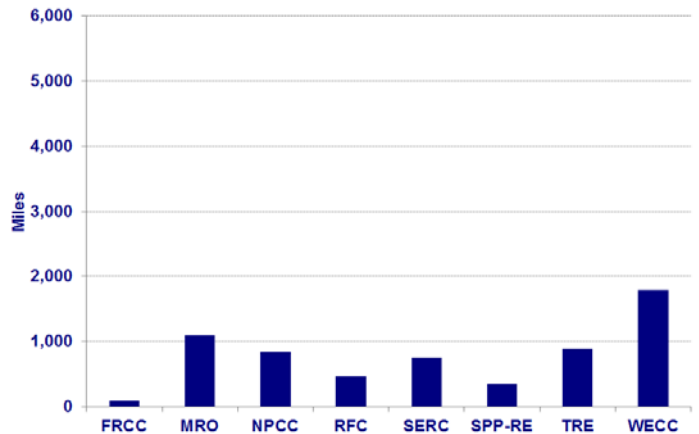
Voltage (kV)	Transmission Projects Completed				Proposed Transmission Projects In-Service by November 2017	
	November 2015	November 2014	January – November 2015 Cumulative	January – December 2014 Cumulative	High Probability of Completion	All
	Line Length (miles)					
≤230	0.0	45.0	185.3	1,218.5	2,790.2	5,431.5
345	0.0	110.0	808.7	1,659.8	2,538.8	4,928.6
500	0.0	0.0	256.0	70.0	950.9	3,292.9
<b>Total U.S.</b>	<b>0.0</b>	<b>155.0</b>	<b>1,250.0</b>	<b>2,948.3</b>	<b>6,279.9</b>	<b>13,653.0</b>

Sources: Data derived from Staff Database and U.S. Electric Transmission Projects ©2015 The C Three Group, LLC.

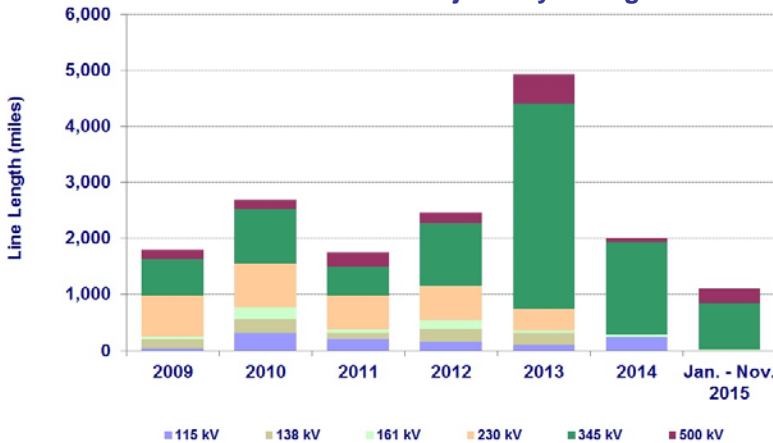
**All Transmission Projects with a Proposed In-Service Date by November 2017**



**Transmission Projects with a High Probability of being completed by November 2017**



**New Transmission Projects by Voltage**



Sources: Data derived from Staff Database and U.S. Electric Transmission Projects ©2015 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.