

# Office of Energy Projects

## Energy Infrastructure Update

For February 2012

### Natural Gas Highlights

- The Commission vacated the authorizations issued to Crown Landing and Texas Eastern to construct and operate an LNG terminal in Gloucester County, NJ and pipeline facilities connecting the terminal to Texas Eastern facilities in PA.
- DCP Midstream received authorization to construct and operate its LaSalle Residue Line Project. This project will provide 230 MMcf/d of capacity from DCP Midstream's new processing plant to CIG in Weld County, CO.
- Texas Eastern received authorization to expand its existing Philadelphia Lateral in Delaware County, PA by providing 27 MMcf/d of transportation capacity for Grays Ferry Cogeneration Partnership and Paulsboro Refining Company.
- Dominion filed to construct and operate its Allegheny Storage Project which will provide 125 MMcf of firm transportation capacity and 2.5 Bcf of working gas capacity for shippers from proposed pipeline and storage facilities in MD, OH, WV, and PA to Northeast markets.
- Liberty Natural Gas filed to withdraw its Liberty DWP Project. This project would have provided 2,400 MMcf/d of new capacity from a proposed LNG facility located Offshore NJ to onshore interconnections with interstate pipelines.
- Jordan Cove commenced the Commission's pre-filing process for its Jordan Cove Liquefaction facility in Coos Bay, OR. This facility will have a liquefaction capability of 900 MMcf/d.

#### Natural Gas Activities in February 2012

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
<b>Pipeline</b>						
Placed in Service	0			0.0	0.0	0
Certificated	2			257.0	11.7	0
Proposed	1			125.0	3.1	19,550
<b>Storage</b>						
Placed in Service	0	0.0	0			0
Certificated	0	0.0	0			0
Proposed	1	2.5	110			0
<b>LNG</b>						
Placed in Service	0	0	0			0
Certificated	0	0	0			0
Proposed	0	0	0			0

Source: Staff Database

#### Natural Gas Activities through February 29, 2012 Through February 28, 2011

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
<b>Pipeline</b>						
Placed in Service	0			0.0	0.0	0
through February 28, 2011	3			1,450.0	43.3	102,430
Certificated	4			490.3	20.3	9,470
through February 28, 2011	2			688.0	20.5	59,265
<b>Storage</b>						
Placed in Service	2	3.1	150			0
through February 28, 2011	0	0.0	0			0
Certificated	2	17.2	0			0
through February 28, 2011	0	0.0	0			0
<b>LNG</b>						
Placed in Service	0	0	0			0
through February 28, 2011	0	0	0			0
Certificated	0	0	0			0
through February 28, 2011	0	0	0			0

Source: Staff Database

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**Hydropower Highlights**

- OEP issued an 8-year hydrokinetic pilot project license to Ocean Renewable Power Company Maine, LLC (ORPC Maine) for the proposed 0.3-MW Cobscook Bay Tidal Energy Project No. 12711. The project will be located in Cobscook Bay in Washington County, Maine. ORPC Maine prepared its license application using the Commission's hydrokinetic pilot project licensing procedures.
- OEP issued a small-hydro (less than 5 MW) exemption from licensing to Crane and Company for the proposed 0.25-MW Byron Weston Hydroelectric Project No. 13583. The project will be located on the East Branch of the Housatonic River in the Town of Dalton, Berkshire County, Massachusetts.
- The New York City Department of Environmental Protection filed a license application for the proposed 14.08-MW Cannonsville Hydroelectric Project No. 13287. The project would be located at an existing New York City water supply dam on the West Branch of the Delaware River, near the Township of Deposit, Delaware County, New York.
- The Three Sisters Irrigation District filed an application for exemption for small conduit hydroelectric facility for the Three Sisters Irrigation District Project No. 14364, located on the Three Sisters Irrigation District Main Canal, Whychus Creek, in Deschutes County, Oregon. The proposed project would develop 0.7 MW and generate an average annual generation of 3,400 MWh.
- Hydro Development Group, Inc. filed a non-capacity amendment to increase the as built capacity from 1.49 MW to 1.9 MW of the Hailesboro #4 Project No. 6058, located on the Oswegatchie River, St. Lawrence County, New York.

**Hydropower Activities in February 2012**

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	14.080	0	0	0	0	1	14.080
5-MW Exemption	0	0	0	0	0	0	0	0
Capacity Amendment	1	0.410	0	0	0	0	1	0.410
Conduit Exemption	1	0.700	0	0	0	0	1	0.700
<b>Issued</b>								
License	0	0	0	0	1	0.300	1	0.300
5-MW Exemption	1	0.250	0	0	0	0	1	0.250
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
5-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 Activities Year to Date (through February 29, 2012)**

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	14.080	0	0	0	0	1	14.080
5-MW Exemption	0	0	0	0	0	0	0	0
Capacity Amendment	2	5.210	0	0	0	0	2	5.210
Conduit Exemption	4	1.800	0	0	0	0	4	1.800

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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)		
<b>Issued</b>								
License	3	18.020	0	0	2	1.350	5	19.370
5-MW Exemption	1	0.250	0	0	0	0	1	0.250
Capacity Amendment	3	24.472	0	0	0	0	3	24.472
Conduit Exemption	1	0.300	0	0	0	0	1	0.300
<b>Placed in Service</b>								
License	0	0	0	0	0	0	0	0
5-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

- AEP's 580 MW gas-fired combined-cycle Dresden plant near Dresden, Ohio is online. The Dresden plant will supply electricity to AEP's Appalachian Power customers in West Virginia, Virginia and Tennessee.
- OG&E's 227.5 MW Crossroads Wind Farm in Dewey County, northwestern Oklahoma is online. The project consists of 95 Siemens turbines at 2.3 MW each, plus three Siemens 3-MW direct drive turbines, the first of their kinds in the United States. This project allows OG&E to provide about ten percent of its energy demand by wind generation.
- Puget Sound Energy's Lower Snake River Wind Facility in Garfield County, Washington is in full commercial operation. Phase I of the project has a total generation capacity of 343 MW; 216 MW came online in December 2011, another 127 MW came online in February 2012. The power generated ties into the Northwest electric grid at Bonneville Power Administration's newly completed Central Ferry substation.
- NextEra Energy Resources' 99.2 MW Perrin Ranch Wind Energy Project in Coconino County, Arizona came online. The project consists of 62 turbines of 1.6 MW each. The facility will provide power to Arizona Public Service.
- NextEra Energy Resources' 78.2 MW FPL Montezuma II Wind Project in Solano County, California is online. The project consists of 34 Siemens 2.3 MW turbines. The power generated is sold to Pacific Gas and Electric Co.
- Allete, Inc.'s 45 MW Bison 1B Wind Energy Center expansion near New Salem, North Dakota is online. Bison 1B consists of 15 Siemens 3-MW direct drive wind turbines. Bison 1A, with 36.8 MW came online in 2010. The power generated by Bison I supplies Minnesota Power, a division of Allete, Inc.
- First Wind's 15 MW Steel Winds II expansion in Lackawana and Hamburg in Erie County, New York came online. Steel Winds is built on the shores of Lake Erie on the abandoned Bethlehem Steel mill site. Steel Winds II consists of six 2.5 MW Clipper Liberty turbines. Steel Winds I with 20 MW came online in 2007.
- Clean Focus Corporation's 4.8 MW SunPower rooftop solar system at Jersey Gardens outlet mall in Elizabeth, New Jersey is online. The project consists of 15,000 SunPower solar panels, is expected to generate 11 percent of the mall's electric demand.
- Enfinity America Corporation announced the completion of 1.8 MW of solar installations at municipal facilities in the City of Reno, Nevada. The total system comprises of 5,016 solar panels. The power generated is sold to Reno under a 20-year agreement.
- Aqua America, Inc. announced the installation of a 1.5 MW solar project at its Pickering Water Treatment plant in Schuylkill Township, Pennsylvania. This is Aqua America's fourth solar installation at its water treatment facilities, with a total of 2 MW of solar for the four water treatment facilities.
- Cox Enterprises announced the installation of 1 MW of fuel cells in San Diego, California. The installation consists of 5 biogas fueled Bloom Energy Servers fuel cell units, which employ electro-chemical process in generation electricity without any combustion.

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

Primary Fuel Type	February 2012		January – February 2012 Cumulative		January – February 2011 Cumulative	
	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)
Coal	0	0	1	808	4	915
Natural Gas	1	678	6	1,084	12	667
Nuclear	0	0	0	0	0	0
Oil	0	0	2	3	1	3
Water	0	0	0	0	4	1
Wind	7	591	14	854	37	1,626
Biomass	5	1	10	9	22	118
Geothermal Steam	0	0	0	0	1	8
Solar	8	13	21	85	27	61
Waste Heat	0	0	0	0	1	135
Other	0	0	0	0	5	8
<b>Total</b>	<b>21</b>	<b>1,284</b>	<b>54</b>	<b>2,842</b>	<b>114</b>	<b>3,540</b>

Source: Data derived from Ventyx Global LLC, Velocity Suite.

**Total Installed Operating Generating Capacity**

Primary Fuel Type	Installed Capacity (GW)	% of Total Capacity
Coal	343.69	29.82%
Natural Gas	478.78	41.54%
Nuclear	108.53	9.42%
Oil	52.64	4.57%
Water	99.69	8.65%
Wind	47.97	4.16%
Biomass	13.79	1.20%
Geothermal Steam	3.45	0.30%
Solar	2.26	0.20%
Waste Heat	0.92	0.06%
Other	1.04	0.09%
<b>Total</b>	<b>1,152.55</b>	<b>100.00%</b>

Source: Data derived from Ventyx Global LLC, Velocity Suite.

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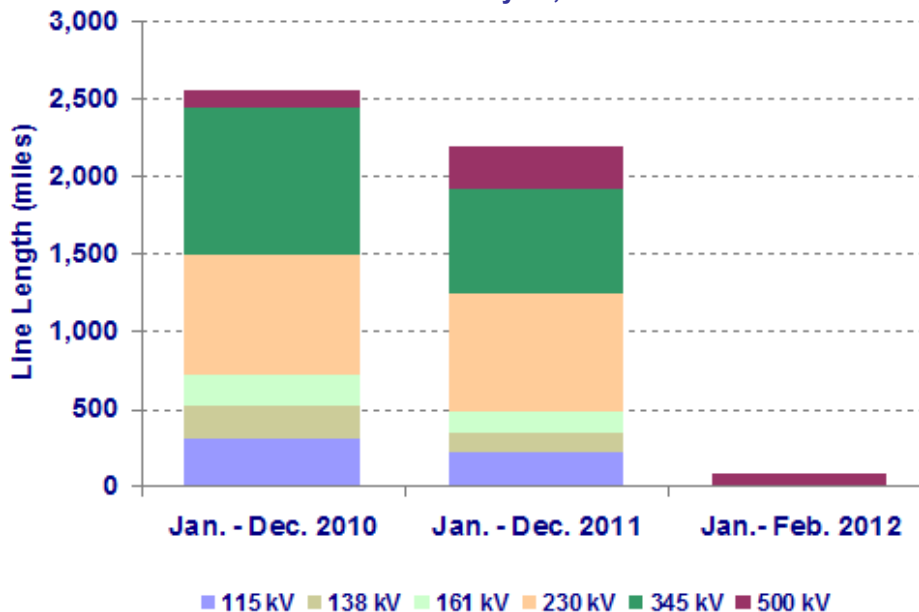
*For February 2012*

### Electric Transmission Highlights

- London Economics International LLC released a study that concluded that the construction and operation of the 333 mile, HVDC Champlain Hudson Power Express transmission project would create approximately 2,000 jobs. The study was commissioned by Transmission Developers Inc (TDI), the developers of the Champlain Hudson project. TDI also submitted a joint settlement agreement to the New York State Public Service Commission. The agreement would allow 1,000 MW of power to flow from Canada to New York City mostly through underwater and underground routes.
- Appalachian Power Company filed an application with the Virginia State Corporation Commission to construct the \$25 million, 138 kV, 7.5 mile Falling Branch–Merrimac transmission project.
- Rocky Mountain Power announced plans to modify the 230 kV Windstar–Aeolus transmission line in Wyoming. They will remove 100 miles on the eastern side of the project. The Windstar-Aeolus transmission line is apart of the 1,100 mile Gateway West transmission project.
- Tri-State Generation & Transmission Association Inc. and Public Service Co. of Colorado announced plans for a joint transmission project in Colorado. The Lamar-Front Range transmission project would consist of a series of 345 kV transmission lines on the eastern plains. It could range in size from 350 miles to 500 miles and cost in between \$294 - \$900 million with a completion date in 2019.
- Bonneville Power Administration completed the 500 kV, 79 mile McNary-John Day transmission line ten months ahead of schedule and saved nearly \$140 million off the original cost estimate of \$340 million.

Voltage (kV)	Transmission Projects Completed				Proposed Transmission Projects In-Service by February 2014	
	February 2012	February 2011	January –February 2012 Cumulative	January –December 2011 Cumulative	High Probability of Completion	All
	Line Length (miles)					
≤230	0	89.5	0	1,236.0	3,396.0	6,292.0
345	0	13.2	0	678.3	8,354.7	10,600.0
500	79.0	0	79.0	268.4	2,095.7	5,802.0
<b>Total U.S.</b>	<b>79.0</b>	<b>102.7</b>	<b>79.0</b>	<b>2,182.7</b>	<b>13,846.4</b>	<b>22,694.0</b>

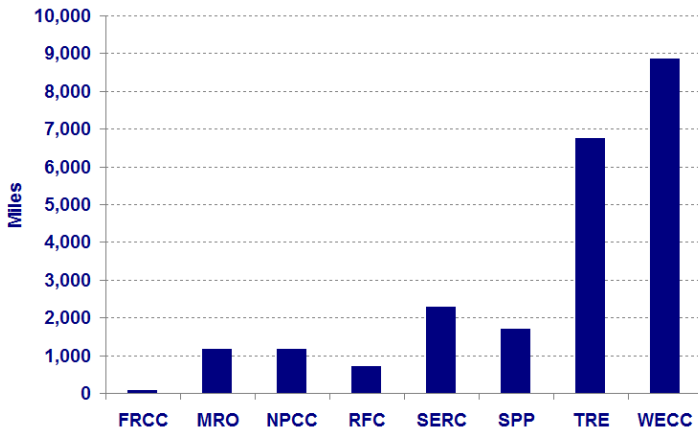
**Completed Transmission Projects  
As of February 29, 2012**



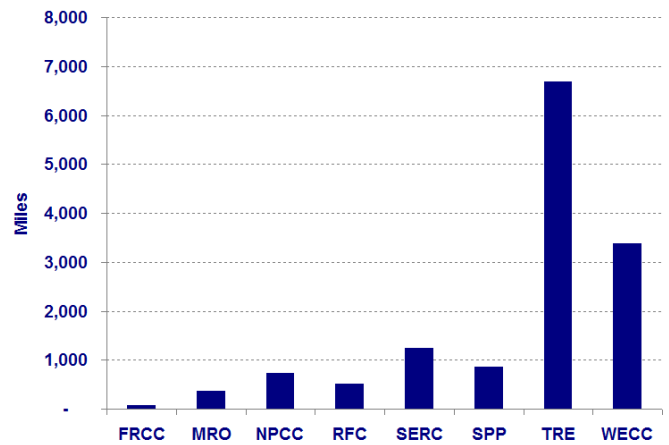
Sources: Data derived from Staff Database and U.S. Electric Transmission Projects ©2012 The C Three Group, LLC

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### All Transmission Projects with a Proposed In-Service Date by February 2014



### Transmission Projects with a High Probability of being completed by February 2014



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