

Office of Energy Projects

Energy Infrastructure Update

For March 2011

Natural Gas Highlights

- Golden Pass placed into service its LNG terminal (Phase I facilities) near Sabine Pass, Texas, and the associated pipeline necessary to transport 1,000 MMcf/d of the terminal's sendout capacity.
- Florida Gas placed into service the last remaining facilities of its Phase VIII Expansion Project which will increase the firm transportation capacity of Florida Gas's system in Florida by 820 MMcf/d.
- Magnum Gas (Utah) and Tallulah Gas (Louisiana) each received authorization to construct and operate salt cavern and salt dome storage facilities with working gas capacities of 42 Bcf and 24 Bcf, respectively.
- National Fuel and Tennessee have filed to construct and operate facilities related to their respective Northern Access and Station 230C Projects which will provide a total of 320 MMcf/d of capacity for transportation from existing interconnections in Pennsylvania.
- Gas Transmission Northwest filed a request to begin the pre-filing process for a proposed 25 mile lateral to transport 219.1 MMcf/d to Portland General Electric's proposed Carty Generating Station located in Morrow County, Oregon.

Natural Gas Activities in March 2011

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service	3			3,355.0	596.2	234,100
Certificated	0			0.0	0	0
Proposed	5			1,175.1	64.7	78,780
Storage						
Placed in Service	1	8.0	2,500			0
Certificated	3	68.0	2,115			47,210
Proposed	1	5.0	0			0
LNG						
Placed in Service	1	9.84	1,000			0
Certificated	0	0	0			0
Proposed	0	0	0			0

Source: Staff Database

Natural Gas Activities through March 31, 2011

Through March 31, 2010

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service through March 31, 2010	6 6			4,805.0 4,046.7	639.5 208.8	336,530 80,815
Certificated through March 31, 2010	2 5			688.0 1,302.5	20.5 3.4	59,265 90,575
Storage						
Placed in Service through March 31, 2010	1 1	8.0 2.1	2,500 0			0 0
Certificated through March 31, 2010	3 4	68.0 31.7	2,115 600			47,210 9,500
LNG						
Placed in Service through March 31, 2010	1 0	9.84 0	1,000 0			0 0
Certificated through March 31, 2010	0 0	0 0	0 0			0 0

Source: Staff Database

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Hydropower Highlights

- On March 1, 2011, the City of Logan, Utah began commercial generation at its DeWitt Pipeline Project, FERC Project No. 13820.
- On March 4, 2011, an original 50-year license was issued to Mahoning Creek Hydroelectric Company, LLC for its proposed 6.0 MW Mahoning Creek Hydroelectric Project No. 12555 which would be constructed at the U.S. Army Corps of Engineers Mahoning dam located on Mahoning Creek in Armstrong County, Pennsylvania. The license requires: (1) a soil erosion and sedimentation control plan; (2) a water quality monitoring plan; (3) an intake structure design plan; (4) a wetland protection plan; (5) a recreation and aesthetics plan; and (6) a historic properties management plan.
- On March 9, 2011, Crane & Company filed an application for a small hydropower exemption for the proposed 0.250 MW Byron Weston Hydroelectric Project No.13583. The proposed project would be located at the existing Byron Weston Dam No. 2 on the East Branch of the Housatonic River in the Town of Dalton, Berkshire County, Massachusetts.
- On March 11, 2011, the City of Watervliet filed an application for a small hydropower exemption for the proposed 5 MW Delta Hydroelectric Project No. 13135-001. The proposed project would be located at the existing New York State Canal Corporation-owned Delta Dam on the East Branch of the Mohawk River in the Town of Rome, Oneida County, New York.
- On March 16, 2011 the FERC Atlanta Regional Office was notified that FERC Project No 7630 Whittles Mill Dam (Exemption) began operation the 0.065 MW generator. Initial operations began in January 2011 Total authorized generation is 0.175 MW and the exemptee is evaluating the restoration of the second unit at this time.
- On March 17, 2011, the Commission issued an Order Amending Conduit Exemption that increased the authorized capacity from 0.070 to 0.0941 MW for the Maxwell Powerhouse, which is part of the Maxwell Project, FERC Project No. 7564.
- On March 17, 2011, the Commission issued an Order Amending Conduit Exemption that increased the authorized capacity from 0.750 to 0.800 MW for the Sunshine Powerhouse, which is part of the Sunshine Project, FERC Project No. 9078.

Hydropower Activities in March 2011

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
5-MW Exemption	2	0.750	0	0	0	0	2	0.750
Capacity Amendment	1	0.820	0	0	0	0	1	0.820
Conduit Exemption	0	0	0	0	0	0	0	0
Issued								
License	1	6.000	0	0	0	0	1	6.000
5-MW Exemption	0	0	0	0	0	0	0	0
Capacity Amendment	2	0.074	0	0	0	0	2	0.074
Conduit Exemption	1	0.150	0	0	0	0	1	0.150
Placed in Service								
License	0	0	0	0	0	0	0	0
5-MW Exemption	1	0.065	0	0	0	0	1	0.065
Capacity Amendment	0	0	0	0	0	0	0	0
Conduit Exemption	1	0.200	0	0	0	0	1	0.200

Source: Staff Database

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Hydropower Activities Year to Date (through March 31, 2011)

Status	Conventional		Pumped Storage		Hydrokinetic		Total No. of Projects	Total Capacity (MW)
	No.	Capacity (MW)	No.	Capacity (MW)	No.	Capacity (MW)		
Filed								
License	1	0.0225	0	0	0	0	1	0.0225
5-MW Exemption	5	1.846	0	0	0	0	5	1.846
Capacity Amendment	2	3.370	0	0	0	0	2	3.370
Conduit Exemption	1	0.075	0	0	0	0	1	0.075
Issued								
License	1	6.000	0	0	0	0	1	6.000
5-MW Exemption	0	0	0	0	0	0	0	0
Capacity Amendment	6	12.618	0	0	0	0	6	12.618
Conduit Exemption	2	0.350	0	0	0	0	2	0.350
Placed in Service								
License	1	0.300	0	0	0	0	1	0.300
5-MW Exemption	1	0.065	0	0	0	0	1	0.065
Capacity Amendment	0	0	0	0	0	0	0	0
Conduit Exemption	3	1.340	0	0	0	0	3	1.340

Source: Staff Database

Electric Generation Highlights

- Xtreme Power officially announced the commissioning of a 15-W energy storage system integrated with the 30-MW Kahuku Wind project on Oahu, Hawaii. This is the first renewable energy project completed under the DOE's loan guarantee program. This system operates in realtime to offset instantaneous power changes, and to turn wind power from a variable supply to a more flexible and reliable power source. The system can firm renewable, store power when it is not needed and provide other ancillary services.
- Calpine Corporation's York Energy Center in Peach Bottom Township, Pennsylvania came online three months ahead of schedule and under its project budget. The 565-MW natural gas-fired plant produces enough power to serve 450,000 residential customers.
- Xcel Energy's Greater Sandhill Solar power plant came online. The 19-MW photovoltaic plant in Alamosa County, Colorado generates electricity to serve 5,000 homes. The plant uses SunPower Tracker systems, which generate up to 25 percent more energy than conventional systems while reducing land-use requirements. The SunPower Trackers tilt toward the sun as it moves across the sky, increasing energy capture.
- Ford-DTE Energy 0.5-MW solar power generation systems at the Michigan Assembly Plant came online in March 2011, delivering renewable energy to power the production of fuel-efficient small cars. The solar facility is integrated with a 0.75-MW energy storage facility that stores 2 MWh of energy using batteries large enough to power 100 homes.

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New Generation In-Service (New Build and Expansion)

Primary Fuel Type	March 2011		January – March 2011 Cumulative		January – March 2010 Cumulative	
	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)
Coal	0	0	3	615	6	1,323
Natural Gas	2	559	9	711	28	1,872
Nuclear	0	0	0	0	0	0
Oil	0	0	0	0	2	4
Water	0	0	4	1	1	1
Wind	6	350	29	1,081	20	430
Biomass	1	2	18	41	31	77
Geothermal Steam	0	0	1	8	0	0
Solar	9	37	33	105	6	6
Waste Heat	0	0	0	0	0	0
Other	2	0	7	20	0	0
Total	20	948	104	2,581	94	3,713

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

Total Installed Operating Generation Capacity

Primary Fuel Type	Installed Capacity (GW)	% of Total Capacity
Coal	344.61	30.36%
Natural Gas	469.21	41.33%
Nuclear	108.52	9.56%
Oil	52.83	4.65%
Water	99.06	8.73%
Wind	41.18	3.63%
Biomass	13.37	1.18%
Geothermal Steam	3.37	0.30%
Solar	1.24	0.11%
Waste Heat	0.82	0.07%
Other	1.04	0.09%
Total	1,135.25	100.00%

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

Electric Transmission Highlights

- On March 24, Dominion Resources Inc. announced plans to spend more than \$1.7 billion over a two-year period to strengthen its electric grid. The \$1.7 billion for reliability projects is part of \$7.4 billion in infrastructure expansions and improvements announced earlier by the company. The reliability improvement projects started in 2010 and are expected to be complete in 2011.
- In March, the Bonneville Power Administration announced plans to build 38 mile, 500-kV transmission line. The project is estimated to cost \$99 million. It will connect a new substation near the Port of Central Ferry in Garfield County, Wash., to the existing Lower Monumental substation in Walla Walla County, Washington.
- NV Energy and Great Basin Transmission South LLC received permission from the Bureau of Land Management to build the One Nevada Transmission Line, or On Line. On Line is a 236 mile, 500 kV transmission line that will connect north of Las Vegas to Ely. The new line is expected to provide better access to northern Nevada geothermal energy and southern Nevada solar energy after it is completed in January 2013.

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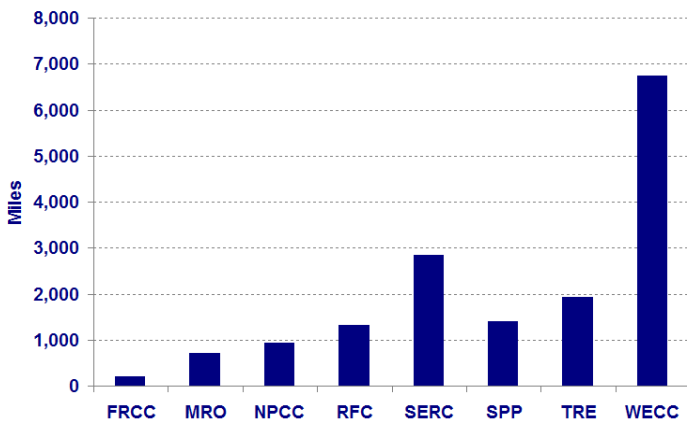
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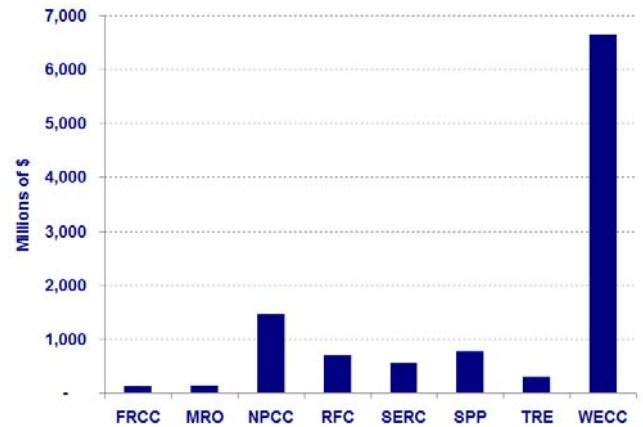
- Dominion Virginia Power announced plans to study the possibility of an offshore electric transmission line to support wind farm development. The study will look at what it would take to build a high-voltage underwater line from Virginia Beach into the Atlantic Ocean.
- The Atlantic Wind Connection filed the first-ever unsolicited right-of-way application with the Department of Interior's Bureau of Ocean Energy Management (BOEM) for the use of certain areas of the U.S. Outer Continental Shelf (OCS) to construct an offshore transmission system. The \$5 billion, 300 mile underwater transmission project will include a 200-foot-wide right of way about 10 miles to 18 miles offshore. The project is expected to start construction in 2013 and be completed in 2021.

Voltage (kV)	Transmission Projects Completed		Proposed Transmission Projects In-Service by March 2013	
	March 2011	March 2010	High Probability of Completion	All
	Line Length (miles)			
≤230	0	94.6	3,968.5	6,638.9
345	0	227.1	2,743.5	4,481.6
500	0	0	1,688.6	4,978.3
765	0	0	0	0
Total U.S.	0	321.7	8,400.6	16,098.8

Transmission Projects with a Proposed In-Service Date by March 2013



Projected Investment Cost of Transmission Projects with a Proposed In-Service Date by March 2013



Sources: Data derived from Staff Database and U.S. Electric Transmission Projects ©2011 The C-Three Group, LLC

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