Office of Energy Projects
Energy Infrastructure Update
For November 2012

Natural Gas Highlights

- Central NY Oil & Gas placed into service its MARC1 Hub Line Project which will provide 550 MMcf/d of firm transportation capacity for three shippers with access to gas from storage and Marcellus Shale gas in northeast PA.
- Transco received authorization to construct and operate its Northeast Supply Link Project. This project will provide 250 MMcf/d of firm transportation capacity from supply areas in PA to markets in NJ and New York City.
- Dominion requests authorization to construct and operate its Natrium-to-Market Project which will provide 185 MMcf/d of firm transportation capacity from producing areas in WV and PA to markets in the Northeast and the Mid-Atlantic.
- Millennium requests authorization to construct and operate its Hancock Compressor Project in Delaware Co., NY. This project will provide 222.5 MMcf/d of firm capacity on Millennium's existing system for delivery to Algonquin in NY.
- Excelerate Liquefaction and Lavaca Bay Pipeline commenced the Commission's pre-filing process to construct and operate a 1,380 MMcf/d, floating liquefaction facility in the Port of Port Lavaca-Point Comfort in Calhoun Co., TX, and related pipeline facilities necessary to deliver 1,500 MMcf/d of natural gas to the LNG facility.
- Northern Natural commenced the Commission's pre-filing process for its West Leg 2014 Expansion Project which will provide 90.4 MMcf/d of firm capacity for two shippers on a new branch pipeline in NE and IA.

Natural Gas Activities in November 2012

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service	4			557.5	64.3	61,660
Certificated	1			250.0	12.5	41,000
Proposed	7			2,143.3	54.9	39,850
Storage						
Placed in Service	0	0.0	0			0
Certificated	0	0.0	0			0
Proposed	2	5.2	0			0
LNG (Import & Export)						
Placed in Service	0	0	0			0
Certificated (Export)	0	0	0			0
Proposed (Export)	1	0	1,380			0

Source: Staff Database

Natural Gas Activities through November 30, 2012
Through November 30, 2011

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service through November 30, 2011	22 31			3,084.0 12,559.4	304.3 1,776.8	224,920 816,369
Certificated through November 30, 2011	20 18			4,305.3 4,177.7	207.5 323.5	133,660 312,255
Storage						
Placed in Service through November 30, 2011	10 11	54.7 42.5	880 2,504			80,100 30,218
Certificated through November 30, 2011	9 13	76.8 181.4	2,940 4,495			85,755 143,010
LNG (Import & Export)						
Placed in Service through November 30, 2011	0 2	0 23.2	0 3,500			0 0
Certificated (Export) through November 30, 2011	1 0	0 0	2,600 0			0 0

Source: Staff Database

Hydropower Highlights

- Bowersock Mill and Power Company placed in service four new generators adding a generating capacity of 4.650 MW to the Expanded Kansas River Hydropower Project No. 13526, in Douglas County, KS. Currently all four units are shut down due to insufficient water in the river.
- City of Hillsboro, OR was issued an Order Granting Exemption from Licensing (Conduit) for the 0.094 MW Will Crandall Reservoir Project No. 14371, in Washington County, OR.
- City of Pendleton, OR was issued an Order Granting Exemption from Licensing (Conduit) for the 0.161 MW ERT Phase I Project No. 14407, in Umatilla County, OR.
- City of Pendleton, OR was issued an Order Granting Exemption from Licensing (Conduit) for the 0.234 MW ERT Phase II Project No. 14440, in Umatilla County, OR.
- Lee R. and A. Leon Thayn were issued an Order Amending Exemption for the Thayn Project No. 6643, located on the Green River in Emery County, UT, resulting in a 0.175 MW capacity increase.

Hydropower Activities in November 2012

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	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	0	0	0	0	0	0	0	0
5-MW Exemption	0	0	0	0	0	0	0	0
Capacity Amendment	1	0.175	0	0	0	0	1	0.175
Conduit Exemption	3	0.490	0	0	0	0	3	0.490
Placed in Service								
License	1	4.650	0	0	0	0	1	4.650
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 November 30, 2012)

Status	Conventional		Pumped Storage		Hydrokinetic		Total No. of Projects	Total Capacity (MW)
	No.	Capacity (MW)	No.	Capacity (MW)	No.	Capacity (MW)		
Filed								
License	13	48.655	0	0	2	1.100	15	49.755
5-MW Exemption	3	0.931	0	0	0	0	3	0.931
Capacity Amendment	4	11.940	0	0	0	0	4	11.940
Conduit Exemption	17	4.475	0	0	0	0	17	4.475
Issued								
License	11	88.985	0	0	4	2.950	15	91.935
5-MW Exemption	2	1.125	0	0	0	0	2	1.125
Capacity Amendment	12	58.557	3	149.500	0	0	15	208.057
Conduit Exemption	17	13.372	0	0	0	0	17	13.372

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	13.180	0	0	0	0	3	13.180
5-MW Exemption	1	0.170	0	0	0	0	1	0.170
Capacity Amendment	0	0	0	0	0	0	0	0
Conduit Exemption	1	1.000	0	0	0	0	1	1.000

Source: Staff Database

Electric Generation Highlights

- Northern California Power Agency's Lodi Energy Center in San Joaquin County, CA is online. The 296 MW combined cycle natural gas power plant features Siemens' patented quick start-up steam turbine technology. This technology provides flexibility to bridge the gap between the intermittent power supply from solar and wind. A new 2.7 mile gas pipeline was laid to supply gas to the plant. The plant will use reclaimed water for its cooling system.
- GWF Energy's 314 MW new Tracy Peaker Power Plant in San Joaquin County, CA is online. The new Tracy power plant converted two existing GE gas turbine generators to combined cycle operation. The Tracy plant fills in gaps caused by the intermittent nature of renewable resources. The plant will use untreated waste water from the Delta-Mendota Canal for the cooling system via a new 1,470 foot long pipeline. The power generated is sold to Pacific Gas and Electric Co. under long-term contract.
- U.S. Geothermal Inc's 17.3 MW Neal Hot Springs geothermal project in Malheur County, OR is online. The project consists of two 1.7 MW units and two 6.9 MW units. The power generated is sold to Idaho Power Co, under long-term contract.
- CPV Cimarron Renewable Energy Co.'s 165.6 MW Cimarron Windpower phase II expansion project in Gray County, KS is online. Phase II consists of 72 Siemens 2.3 MW turbines. The 131.1 MW Phase I came online in June 2012. The power generated is sold to Kansas City Power & Light and TVA under long-term contract.
- Consumers Energy's 100.8 MW Lake Winds Energy Park in Mason County, MI is online. This project consists of 55 Vestas 1.8 MW turbines. Consumers Energy will receive 100% of the power generated.
- AES-Acciona NY Windpower's 216 MW Marble River Wind Farm in Clinton County, NY is online. This project consists of 72 Vestas 3 MW wind turbines, which are amongst the largest wind turbines in the U.S. The power generated is sold to NYSERDA under long-term contract.
- Exelon Corp's 60 MW Harvest Wind Farm phase II expansion project in Huron County, MI is online. Phase II consists of 33 Vestas 1.8 MW wind turbines. The power generated is sold to Consumers Power under long-term contract. The 52.8 MW Phase I came online in February 2008. The power generated from Phase 1 is sold to Wolverine Power Supply Coop. Inc.
- First Wind's 69 MW Kawailoa Wind on Oahu, HI is online. The project consists of 32 Siemens 2.3 MW wind turbines, which makes it the largest wind farm in HI. The power generated is sold to Hawaii Electric Company under long-term contract.
- Iberdrola SA's 50 MW Rippey Wind Farm in Greene County, IA is online. This project consists of 20 Nordex 2.5 MW wind turbines. The power generated is sold to Central Iowa Power Cooperative under long-term contract.
- Northwestern Corp.'s 40 MW Spion Kop Wind Project in Judith Basin County, MT is online. The project consists of 25 GE 1.6 MW wind turbines. Northwestern Corp will receive 100% of the power generated.
- First Wind's 34.2 MW Blue Sky East Wind Project in Hancock County, ME is online. This project consists of 19 Vestas 1.8 MW wind turbines. Phase II with 30.6 MW is expected to come online in 2015. The power generated is sold to NSTAR under long-term contract.
- Narragansett Bay Commission's 4.5 MW Field's Point Wind Project in Providence, RI is online. This project consists of three 1.5 MW wind turbines. These turbines are the first utility-scale turbines in Providence. The electricity generated will be used to power the Narragansett Bay Commission's waste and stormwater treatment plant.
- Aspen Skiing Co.'s 3 MW Elk Creek Mine Methane Project in Gunnison County, CO is online. The project is fired by methane vented from the Oxbow Corp.'s Elk Creek Mine. This is the first such project on a large scale in the nation. The power generated is sold to Holy Cross Energy under long-term contract.
- Exelon Corp.'s 4.35 MW Casa Grande Union High School Solar in Pinal County, AZ is online. The project consists of power systems located at 3 local high schools and the school district's transportation center, in the form of covered parking lots with 18,232 solar panels. The power generated is sold to the Casa Grande High School district under long-term contract.

- Exelon Corp.'s 5 MW Outback Solar Phase I in Lake County, OR is online. This project consists of 23,000 solar panels and is Oregon's largest solar system. Phase II with 10 MW is expected to be online by December 2013. The power generated is sold to Portland General Electric under long-term contract.
- Obsidian Finance Group's 2 MW Black Cap solar Project in Lake County, OR is online. This project consists of 9,000 solar panels and was commissioned by PacifiCorp.
- Solbridge Energy LLC's 2 MW Solar 55 and 2 MW Manway Solar, both in Wayne County, NC are online. The power generated from both projects is sold to Progress Energy Carolinas under long-term contracts.
- Kenansville Solar and Beulaville Solar, both 2 MW each, in Duplin County, NC are online. The power generated from both projects is sold to Progress Energy Carolinas under long-term contracts.

New Generation In-Service (New Build and Expansion)

	November 2012		January – November 2012 Cumulative		January – November 2011 Cumulative	
Primary Fuel Type	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)
Coal	0	0	3	2,276	14	1,865
Natural Gas	3	445	82	6,335	105	10,133
Nuclear	0	0	1	125	0	0
Oil	0	0	9	16	35	120
Water	0	0	9	12	22	85
Wind	14	744	108	6,255	116	4,475
Biomass	4	4	85	419	99	381
Geothermal Steam	4	17	11	141	7	31
Solar	13	23	189	1,079	230	751
Waste Heat	0	0	1	3	2	136
Other	0	0	2	0	11	0
Total	38	1,233	500	16,661	641	17,977

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

Total Installed Operating Generating Capacity

	Installed Capacity (GW)	% of Total Capacity
Coal	337.08	29.28%
Natural Gas	490.39	42.59%
Nuclear	106.90	9.28%
Oil	41.82	3.63%
Water	98.08	8.52%
Wind	53.25	4.62%
Biomass	14.96	1.30%
Geothermal Steam	3.64	0.32%
Solar	3.52	0.31%
Waste Heat	0.69	0.06%
Other	1.07	0.09%
Total	1,151.40	100.00%

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

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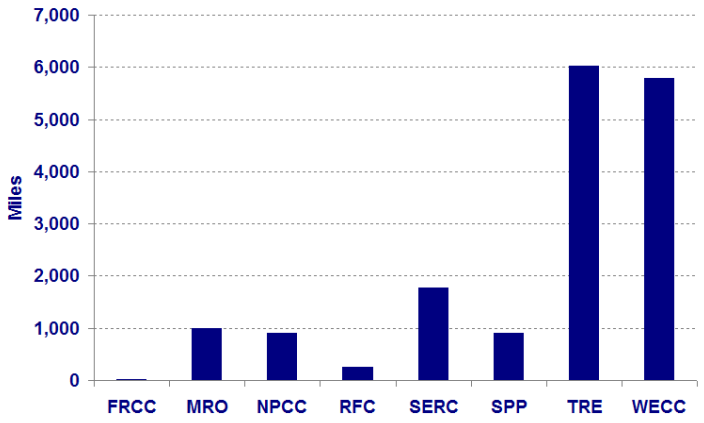
Electric Transmission Highlights

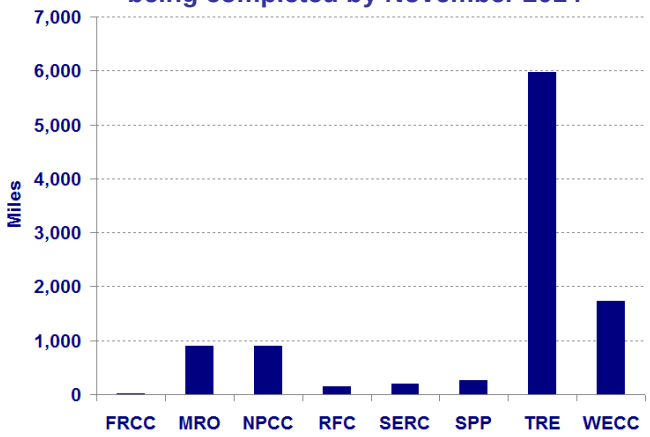
- Vectren's 138 kV, 5 mile Northeast-Oak Grove transmission line in IN is in-service. This project cost $2.8 million.
- Southern California Edison revised the in-service date for Mesa-Mira Loma Segment 8 of the Tehachapi Renewable Transmission Project from 2015 to late 2016 or 2017. The 500 kV, 39 mile Segment 8 connects San Bernardino and Los Angeles County, CA.

	Transmission Projects Completed				Proposed Transmission Projects In-Service by November 2014	
Voltage (kV)	November 2012	November 2011	January – November 2012 Cumulative	January – December 2011 Cumulative	High Probability of Completion	All
	Line Length (miles)					
≤230	5.0	38.8	460.2	951.8	1,393.0	4,510.4
345	0	3.6	654.8	516.5	7,546.6	8,831.7
500	0	0	170.1	262.0	1,161.0	3,298.0
Total U.S.	5.0	42.4	1,285.1	1,730.3	10,100.6	16,640.1

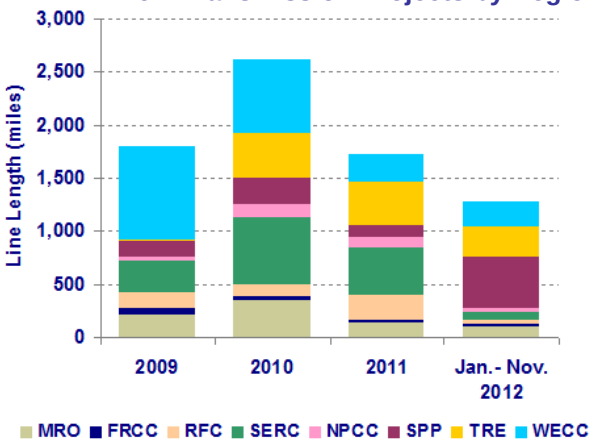
All Transmission Projects with a Proposed In-Service Date by November 2014



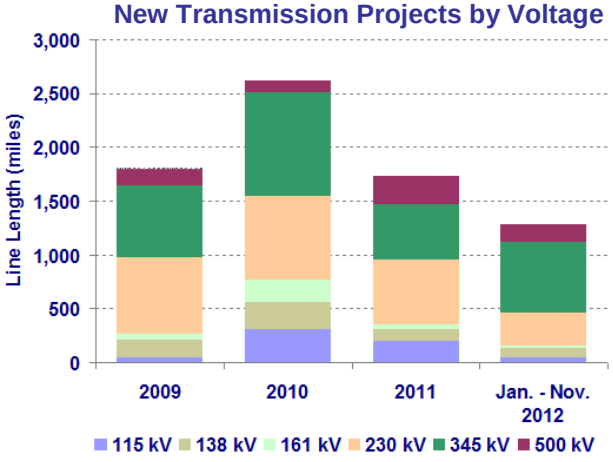
Transmission Projects with a High Probability of being completed by November 2014



New Transmission Projects by Region



New Transmission Projects by Voltage



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