

Office of Energy Projects

Energy Infrastructure Update

For July 2012

Natural Gas Highlights

- Equitrans placed into service its Sunrise Pipeline Project which will add 314 MMcf/d of additional capacity in WV and PA for the movement of Marcellus Shale gas to Northeastern and Mid-Atlantic markets.
- The Commission vacated the authorization issued to Cameron LNG to expand its existing import terminal near Hackberry, LA. The expansion would have increased the deliverability by 850 MMcf/d.
- Oregon LNG and Oregon Pipeline commenced the Commission's pre-filing process to construct and operate a 1,250 MMcf/d liquefaction terminal near Warrenton, OR, and the associated pipeline facilities to interconnect with Northwest.
- Northwest commenced the Commission's pre-filing process to construct and operate facilities in WA necessary to provide 750 MMcf/d of firm transportation capacity to the proposed Oregon LNG liquefaction facility in OR.
- Texas Eastern commenced the Commission's pre-filing process to construct and operate its TEAM 2014 Project. This project will provide 600 MMcf/d of new capacity for the movement of Marcellus Shale gas to the Northeast, Midwest, and Gulf Coast markets.

Natural Gas Activities in July 2012

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service	2			313.6	49.4	14,205
Certificated	2			275.0	0.2	12,260
Proposed	5			2,780.7	233.3	201,160
Storage						
Placed in Service	1	1.0	150			0
Certificated	0	0.0	0			0
Proposed	0	0.0	0			0
LNG (Import & Export)						
Placed in Service	0	0	0			0
Certificated (Export)	0	0	0			0
Proposed (Export)	1	0	1,250			0

Source: Staff Database

Natural Gas Activities through July 31, 2012 Through July 31, 2011

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service through July 31, 2011	6 15			687.9 8,070.5	81.1 1,441.5	21,205 618,771
Certificated through July 31, 2011	13 8			3,017.8 2,272.3	97.2 238.1	86,660 110,385
Storage						
Placed in Service through July 31, 2011	7 6	37.2 25.3	780 2,545			33,000 6,283
Certificated through July 31, 2011	7 7	52.8 138.3	1,700 3,200			49,020 91,710
LNG (Import & Export)						
Placed in Service through July 31, 2011	0 1	0 16.4	0 2,000			0 0
Certificated (Export) through July 31, 2011	1 0	0 0	2,600 0			0 0

Source: Staff Database

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Hydropower Highlights

- Wilkesboro Hydroelectric Company, LLC was issued an original license for the proposed 4 MW W. Kerr Scott Hydropower Project No. 12642. The project will be located at the existing U.S. Army Corps of Engineers' W. Kerr Scott Dam and Reservoir, located on the Yadkin River, near Wilkesboro in Wilkes County, NC.
- Grand Valley Irrigation Company was issued an order granting exemption from licensing (conduit) for the Dividers Project (FERC No. 14377), located on the Grand Valley Irrigation Canal where the Upper Mainline canal splits into the Highline and the Lower Mainline in Mesa County, CO. The proposed project would develop 0.185 MW.
- Monroe City filed an Application for Exemption from Licensing (Conduit) for the Monroe Cold Spring Project (FERC No. 14441), located on the city's water distribution system, in Sevier County, UT. The proposed project would develop 0.037 MW.
- City of Pendleton, OR filed an Application for Exemption from Licensing (Conduit) for the ERT Phase 2 Project No. 14440, located in Umatilla County, OR. The proposed project would develop 0.2344 MW.

Hydropower Activities in July 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	2	0.271	0	0	0	0	2	0.271
Issued								
License	1	4.000	0	0	0	0	1	4.000
5-MW Exemption	0	0	0	0	0	0	0	0
Capacity Amendment	0	0	0	0	0	0	0	0
Conduit Exemption	1	0.185	0	0	0	0	1	0.185
Placed in Service								
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 July 31, 2012)

Status	Conventional		Pumped Storage		Hydrokinetic		Total No. of Projects	Total Capacity (MW)
	No.	Capacity (MW)	No.	Capacity (MW)	No.	Capacity (MW)		
Filed								
License	5	19.905	0	0	2	1.100	7	21.005
5-MW Exemption	2	0.733	0	0	0	0	2	0.733
Capacity Amendment	3	9.040	0	0	0	0	3	9.040
Conduit Exemption	13	3.451	0	0	0	0	13	3.451
Issued								
License	8	42.840	0	0	2	1.350	10	44.190
5-MW Exemption	2	1.125	0	0	0	0	2	1.125
Capacity Amendment	9	52.382	3	149.500	0	0	12	262.594
Conduit Exemption	8	9.685	0	0	0	0	8	9.685

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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	2	8.530	0	0	0	0	2	8.530
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	0	0	0	0	0	0	0	0

Source: Staff Database

Electric Generation Highlights

- Babcock & Wilcox Co.'s 125 MW B&W mPower Reactor Integrated System Test (IST) facility located at the Center for Advanced Engineering and Research in Bedford County, Virginia is online. The IST is a small modular- nuclear reactor designed to test, evaluate and simulate the energy generated by a nuclear core.
- Dominion Virginia Power's 668 MW Virginia City Hybrid Energy Center in Wise County, Virginia is online. The facility uses the circulating fluidized bed (CFB) technology, fueled by coal, low-cost waste coal and wood waste.
- Algonquin Power's 16.4 MW natural gas combustion turbine generator at the Windsor Locks Cogeneration Facility in Windsor Locks, Connecticut is online. This is an expansion project adding to an existing 56 MW combined cycle generator. This cogeneration facility supplies steam and electricity to an adjacent paper mill.
- Pennsylvania Dept. of Corrections' 6.96 MW SCI Laurel Highlands project in Somerset County, Pennsylvania is online. The project is fired by natural gas and landfill gas supplied by the Mosteller Landfill through a 4.7 mile landfill gas pipeline. The electricity is used by the correction facility and surplus is sold to First Energy.
- Invenergy LLC's 200 MW Bishop Hill Wind Energy Phase 1 in Henry County, Illinois is online. This first phase consists of 133 GE wind turbines located on 22,000 acres of farm land. The electricity is contracted to TVA under long-term agreement. Two additional phases totaling another 213 MW are in development with the latest completion expected in June 2013.
- Caithness Energy LLC's 290 MW Shepherds Flat Wind Farm Phase 3 in Morrow County, Oregon came online. This expansion project together with two phases already in operation now total 555 MW. An additional 290 MW is expected to come online in August 2012. The electricity is sold to So. California Edison under long-term contract.
- Enel Green Power's 149 MW Rocky Ridge Wind Farm in Kiowa and Washita Counties, Oklahoma is online. The electricity is contracted to the Western Farmers Electric Cooperative.
- NRG Energy Inc's 100 MW Aqua Caliente Phase 4 solar expansion project in Yuma County, Arizona is online. The solar facility now totals 200 MW. Phase 5 with 90 MW is now in development with expected in service date in April 2014. The electricity is sold under long-term contract to PG&E.
- Four solar projects are online in California: Solar Power Inc's 8 MW Palm Springs Solar in Riverside County; 2.2 MW Augustine Solar expansion project phase 2, the largest solar project on tribal lands; SCE Golden Solar Santa Fe Springs No. 1 and No. 2 with a total of 3.08 MW; and SCE 15710 San Antonio Ave Solar with 1.86 MW.
- Solar Design and Development's 4 MW SDD Solar Project 5 & 4 in Upson County, Georgia is online. The electricity is sold to Georgia Power under long-term agreement.
- Doyon Utilities, LLC's 5.6 MW Eagle River Landfill-Gas-to-Energy project in Anchorage, Alaska in online. The project is located on the Joint Base Elmendorf-Richardson, a joint U.S. Army and Air Force base and will provide half of the Joint Base's peak demand.

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New Generation In-Service (New Build and Expansion)

Primary Fuel Type	July 2012		January – July 2012 Cumulative		January – July 2011 Cumulative	
	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)
Coal	1	668	3	2,276	10	1,165
Natural Gas	3	19	54	4,159	76	8,436
Nuclear	1	125	1	125	0	0
Oil	0	0	8	13	27	56
Water	0	0	4	4	11	20
Wind	3	652	57	3,025	80	3,194
Biomass	6	10	69	327	73	186
Geothermal Steam	0	0	7	105	3	28
Solar	10	122	124	720	130	251
Waste Heat	0	0	1	3	1	135
Other	0	0	2	0	9	0
Total	24	1,595	330	10,758	420	13,470

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

Total Installed Operating Generating Capacity

	Installed Capacity (GW)	% of Total Capacity
Coal	341.44	29.58%
Natural Gas	482.32	41.78%
Nuclear	105.91	9.18%
Oil	51.70	4.48%
Water	99.79	8.64%
Wind	50.19	4.35%
Biomass	14.38	1.25%
Geothermal Steam	3.61	0.31%
Solar	3.15	0.27%
Waste Heat	0.80	0.07%
Other	1.04	0.09%
Total	1,154.32	100.00%

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

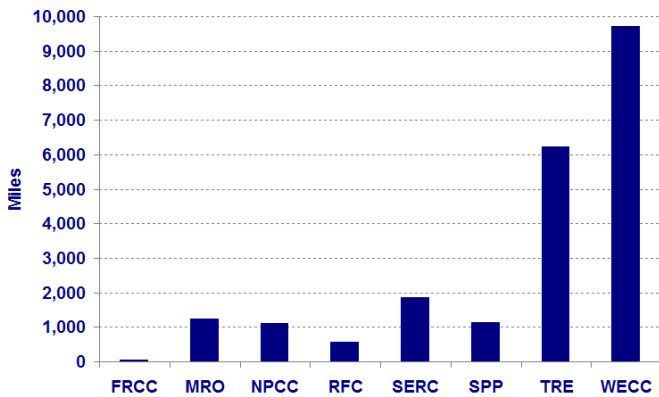
Electric Transmission Highlights

- ITC Great Plains LLC placed in service the 345 kV, 18 mile Hugo – Valliant transmission line in OK.
- Southwestern Electric Power Company, a part of AEP West, placed in service the 138 kV, 34 mile Turk - SE Texarkana transmission line in AR. The \$25.6 million transmission project is located in AR.
- Central Maine Power Co. energized the 115 kV, 39 mile Wyman Hydro – Rice Rips transmission line in ME.
- The Arizona Corporation Commission approved the 500 kV, 40 mile Pinal Central – Tortolita transmission line. The \$40 million transmission project is scheduled to be completed in 2014 or 2015.

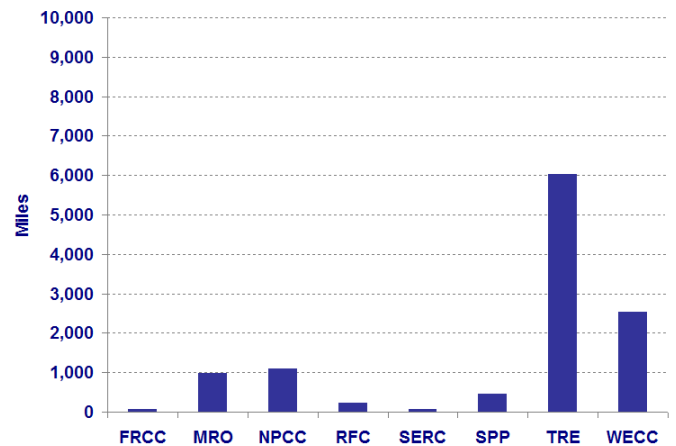
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Voltage (kV)	Transmission Projects Completed				Proposed Transmission Projects In-Service by July 2014	
	July 2012	July 2011	January –July 2012 Cumulative	January –December 2011 Cumulative	High Probability of Completion	All
	Line Length (miles)					
≤230	73.0	1.3	254.0	909.3	1,560.5	5,162.2
345	18.0	0	528.8	516.5	7,984.0	9,924.7
500	0	0	170.1	262.0	1,862.0	6,825.0
Total U.S.	91.0	1.3	952.9	1,687.8	11,406.5	21,911.9

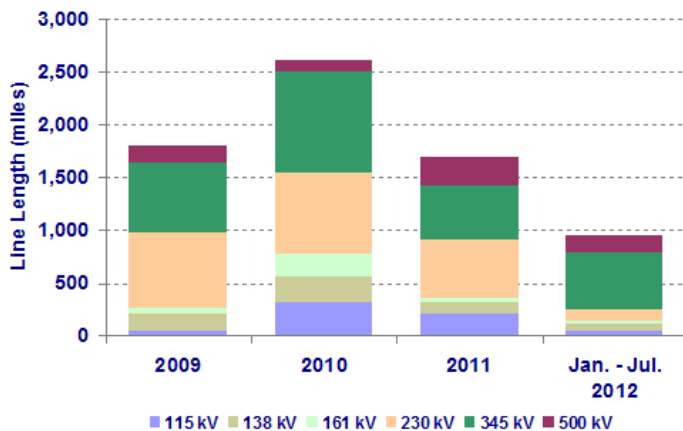
All Transmission Projects with a Proposed In-Service Date by July 2014



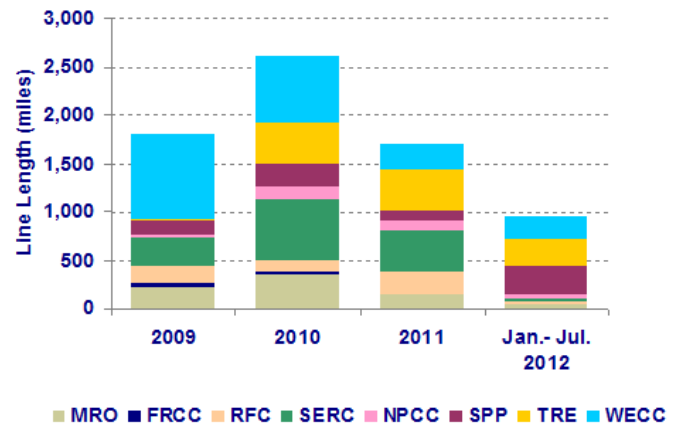
Transmission Projects with a High Probability of being completed by July 2014



New Transmission Projects by Voltage



New Transmission Projects by Region



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

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