

Office of Energy Projects

Energy Infrastructure Update

For July 2011

Natural Gas Highlights

- The Ruby Pipeline commenced service in July. The 678 mile pipeline will transport 1,456 MMcf/d of Rockies natural gas from Wyoming to customers in the Pacific Northwest and California.
- Tiger Pipeline placed into service its Expansion Project – Phase I. These pipeline facilities will enable Tiger Pipeline to transport an additional 400 MMcf/d of gas from the Haynesville and Mid-Bossier shale basins to eastern markets.
- Ryckman Creek received authorization to construct and operate a new storage facility (Ryckman Creek Storage Project) in Uinta County, Wyoming. This storage field will have a total working gas capacity of 35 Bcf.
- Equitrans received authorization to construct and operate its Sunrise Project which will provide 314 MMcf/d of new capacity for the transportation of Marcellus shale gas to markets in the Mid-Atlantic and Northeast.
- Millennium filed an application to construct and operate its Minisink Compressor Project which will provide an additional 225 MMcf/d of capacity to transport market area gas to Algonquin at Ramapo, New York.
- Sawgrass Storage filed an application to convert a depleted natural gas reservoir in Lincoln and Union Parishes, Louisiana into a natural gas storage facility with a working gas capacity of 30 Bcf.

Natural Gas Activities in July 2011

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service	2			1,856.0	698.3	187,726
Certificated	2			455.6	49.8	33,155
Proposed	5			592.0	13.5	52,430
Storage						
Placed in Service	1	10.0	0			0
Certificated	1	35.0	480			33,000
Proposed	2	32.7	300			19,000
LNG						
Placed in Service	0	0	0			0
Certificated	0	0	0			0
Proposed	0	0	0			0

Source: Staff Database

Natural Gas Activities through July 31, 2011

Through July 31, 2010

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service	14			8,060.5	1,430.1	618,771
through July 31, 2010	10			5,090.2	225.4	140,905
Certificated	8			2,272.2	238.1	110,385
through July 31, 2010	14			7,533.1	1,432.2	439,454
Storage						
Placed in Service	5	25.3	2,545			6,283
through July 31, 2010	6	43.9	1,011			8,180
Certificated	7	138.3	3,200			91,710
through July 31, 2010	9	79.0	3,248			72,028
LNG						
Placed in Service	1	16.4	2,000			0
through July 31, 2010	1	4.22	400			0
Certificated	0	0	0			0
through July 31, 2010	0	0	0			0

Source: Staff Database

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Hydropower Highlights

- On July 7, 2011, DHL staff issued an original license to the City of Ouray for the proposed 20-kW Ouray Water Supply Small Conduit Hydroelectric Project No. 13797, located near the City of Ouray, Colorado. The proposed project would generate electricity by conveying excess water from the Weehawken Spring through an existing 1-mile-long, 6-inch-diameter pipeline and a new 300-foot-long, 6-inch-diameter pipeline connected to a Pelton wheel turbine. The project would generate an average of 150,000 kWh annually.
- On July 20, 2011, DHL staff issued a new license to Lockhart Power for the 1.9-MW Pacolet Hydroelectric Project No. 2621, located on the Pacolet River in Spartanburg County, South Carolina. The license authorizes the construction of additional generating facilities to increase the installed capacity of the project by 1.1 MWs, for a total installed capacity of 1.9 MWs.
- Seattle City Light filed an application on July 12, 2011, for non-capacity related amendment of license. The project is located on the Skagit River, in Whatcom, Skagit, and Snohomish counties, Washington. The licensee proposes to amend the license to construct a second tunnel between the Gorge Dam and Gorge Powerhouse. This proposal would increase operational capacity from 176 MW to 207.5 MW and increase annual generation by 56,000 MWh.
- Oregon Department of Fish and Wildlife filed an application on July 22, 2011, for a conduit exemption for its proposed Oak Springs Project No. 14235, located on its Oak Springs Fish Hatchery system, in Wasco County, Oregon. The project will develop 0.085 megawatts of capacity and have an average annual generation of 680,000 kilowatt-hours.
- George Wenschhof filed on July 15, 2011, an application for a conduit application, pursuant to the Colorado MOU, for the Meeker Wenschhof Project No. 14230. The project will develop 0.023 MW and generate 100,000 kWh annually.
- On July 29, 2011, Red River Hydro LLC, a wholly-owned subsidiary of Symbiotics LLC, filed a license application for the proposed 78-MW Overton Lock and Dam Project No. 13160. The proposed project would be located on the Red River in Rapides Parish, Louisiana. The project would be located at an existing lock and dam owned and operated by the U.S. Army Corps of Engineers.
- On July 18, 2011, Turnbull Hydro, LLC, of Idaho Falls, Idaho brought on line the Upper Turnbull Project, FERC No. 12598. The project is located on the Spring Valley Canal in Teton County, Montana, and contains a single unit rated at 5.3 MW. This project was one year in construction.
- On July 15, 2011, Wagon Wheel Associates began commercial generation at its Humphreys Project, FERC Project No. 13871. This resulted in a capacity increase of 0.310 MW for SFRO's 5-MW exemption projects.
- In July 2011, City of Gloversville, NY, brought on line the Rice Reservoir, FERC No. 13635. The project is located on the Dixon - Rice Reservoir Conduit in Fulton County, NY, and contains a single unit rated at 25 kW.

Hydropower Activities in July 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	78.000	0	0	0	0	1	78.000
5-MW Exemption	0	0	0	0	0	0	0	0
Capacity Amendment	1	31.500	0	0	0	0	1	31.500
Conduit Exemption	2	0.108	0	0	0	0	2	0.108
Issued								
License	2	1.120	0	0	0	0	2	1.120
5-MW Exemption	0	0	0	0	0	0	0	0
Capacity Amendment	1	7.867	0	0	0	0	1	7.867
Conduit Exemption	0	0	0	0	0	0	0	0
Placed in Service								
License	1	5.300	0	0	0	0	1	5.300
5-MW Exemption	1	0.310	0	0	0	0	1	0.310
Capacity Amendment	0	0	0	0	0	0	0	0
Conduit Exemption	1	0.025	0	0	0	0	1	0.025

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Hydropower Activities Year to Date (through July 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	9	336.423	0	0	0	0	9	336.423
5-MW Exemption	4	1.346	0	0	0	0	4	1.346
Capacity Amendment	7	56.250	0	0	0	0	7	56.250
Conduit Exemption	6	6.054	0	0	0	0	6	6.054
Issued								
License	6	48.910	0	0	0	0	6	48.910
5-MW Exemption	0	0	0	0	0	0	0	0
Capacity Amendment	9	34.897	0	0	0	0	9	34.897
Conduit Exemption	4	1.725	0	0	0	0	4	1.725
Placed in Service								
License	2	13.000	0	0	0	0	2	13.000
5-MW Exemption	2	0.375	0	0	0	0	2	0.375
Capacity Amendment	1	3.000	0	0	0	0	1	3.000
Conduit Exemption	4	1.365	0	0	0	0	4	1.365

Source: Staff Database

Electric Generation Highlights

- FPL's West County Energy Center natural gas-fired Unit 3 came online, completing the expansion at the plant. Unit 1 and 2 had been in operation since 2009. All three units are 1,250 MW each.
- GDF SUEZ and International Power's Astoria Energy II plant in New York City began commercial operation. The entire output from the 575-MW natural gas fired plant is contracted to the New York Power Authority for 20 years.
- The 620-MW natural gas-fired Kleen Energy Power Plant in Middletown, Connecticut is in commercial operation. The plant was rebuilt after a fatal explosion there last year.
- First Wind's 60-MW Rollins Wind Project in Penobscot County, Maine came online. This project consists of 40 GE 1.5-MW wind turbines which will produce enough energy to power 23,000 homes per year.
- Edison Mission Group's 30-MW Community Wind North Project in Lincoln County, Minnesota came online. The energy output from Community Wind North is sold under a 20-year power purchase agreement to Xcel Energy's Northern States Power Co. The project consists of 12 2.5-MW Clipper turbines that will produce enough power for 10,000 homes.
- Denver International Airport and Constellation Energy announced the completion of a 4.4-MW ground-mounted solar power system. Constellation built and will manage the solar panels and the airport will purchase the electricity produced by the panels for the next 20 years. This is the third large solar power project for Denver International. The airport now hosts a total of 8-MW of solar power producing about 6 percent of its energy demand.
- The 3-MW Frenchtown I Solar in Hunterdon County, New Jersey came online. Frenchtown I is interconnected with Jersey Central Power and Light. The full energy output from Frenchtown I will be purchased by Consolidated Edison Energy.
- The Emmett J. Bean Federal Center in Indianapolis has installed the largest rooftop array of solar panels in the Midwest. The 3.2-MW solar project consists of 6,152 Power solar panels produces electricity for use inside the building.

Office of Energy Projects

Energy Infrastructure Update

For July 2011

New Generation In-Service (New Build and Expansion)

Primary Fuel Type	July 2011		January – July 2011 Cumulative		January – July 2010 Cumulative	
	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)
Coal	0	0	8	835	18	4,812
Natural Gas	3	2,445	61	7,837	58	4,204
Nuclear	0	0	0	0	0	0
Oil	0	0	0	0	3	5
Water	0	0	7	19	10	19
Wind	13	90	62	2,873	38	1,568
Biomass	0	0	35	85	50	250
Geothermal Steam	0	0	2	23	0	0
Solar	10	17	87	198	28	83
Waste Heat	0	0	1	135	3	91
Other	0	0	9	20	0	0
Total	26	2,552	272	12,025	208	11,033

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

Total Installed Operating Generation Capacity

Primary Fuel Type	Installed Capacity (GW)	% of Total Capacity
Coal	343.61	30.13%
Natural Gas	474.91	41.64%
Nuclear	106.92	9.38%
Oil	52.78	4.63%
Water	99.17	8.70%
Wind	42.83	3.76%
Biomass	13.48	1.18%
Geothermal Steam	3.40	0.30%
Solar	1.35	0.12%
Waste Heat	0.96	0.08%
Other	1.04	0.09%
Total	1,140.44	100.00%

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

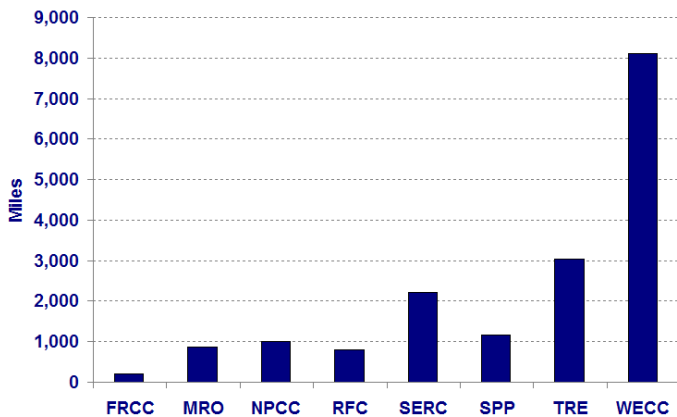
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Electric Transmission Highlights

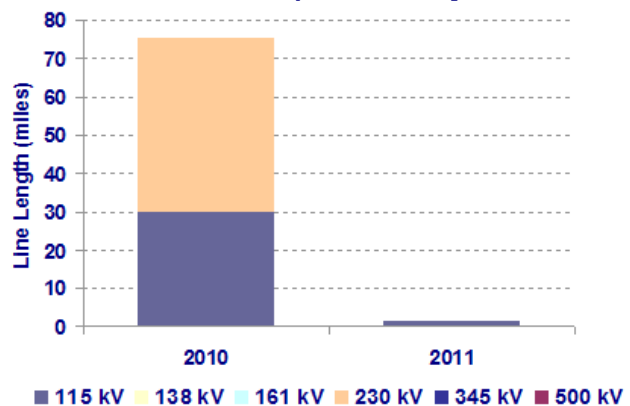
- On July 12, the Kansas Corporation Commission approved siting for ITC Great Plains LLC's "V Plan." The 345-kV transmission project is 122 miles. Construction of the \$300 million project is expected to begin in 2013 and be completed in 2014.
- An Oklahoma administrative law judge recommended that the Oklahoma Corporation Commission approve a settlement offer that granted Clean Line Energy Partner, a transmission-only company, public utility status. This ruling will allow Clean Line to move forward with its plans to build the \$3.5 billion Plains and Eastern Clean Line project, an 800-mile, interstate HVDC line that will connect Texas and Oklahoma to the southeastern United States.
- The U.S. Department of Defense has dropped its objections to the interstate SunZia transmission project. The 500-kV, 460-mile transmission project will cross New Mexico and Arizona. SunZia's estimated total transmission capacity is 3,000 megawatts for two 500 kV AC lines, or 4,500 megawatts should a hybrid configuration of one 500 kV AC line and one 500 kV DC line. The \$800 million project is expected to be in service by the end of 2015.
- The cities of Lancaster and Pittsburg, California are partnering with a transmission-only developer to create the High Desert Power Authority. The High Desert Power Authority will develop the 40-mile AV Clearview Transmission Line, an underground, double-circuit 345-kV line between Southern California Edison Co.'s South Base substation and a new substation that will connect into the Vincent-Lugo line. The AV Clearview Transmission Line will allow solar development in areas that are hard to reach with overhead transmission lines.

Voltage (kV)	Transmission Projects Completed		Proposed Transmission Projects In-Service by July 2013	
	July 2011	July 2010	High Probability of Completion	All
	Line Length (miles)			
≤230	1.3	75.2	3,123.0	5,816.7
345	0	0	4,278.9	5,697.5
500	0	0	1,706.8	5,930.5
Total U.S.	1.3	75.2	9,108.7	17,444.7

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



Transmission Projects Completed in July



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

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