

Office of Energy Projects Energy Infrastructure Update

For April 2013

Natural Gas Highlights

- Elba Express placed into service its Hartwell Compressor Station Project in Hart County, GA. This project will provide an additional 220 MMcf/d of transportation capacity on Elba Express existing pipeline system in GA and SC.
- Cadeville Gas Storage placed into service the reservoir and a portion of the storage and pipeline facilities of its Cadeville Project in Ouachita Parish, LA. This storage project will provide 16.4 Bcf of working gas capacity.
- Transco requested authorization to construct and operate its Northeast Connector Project which will provide an additional 100 MMcf/d of new transportation capacity on Transco's existing system in NY.
- Dominion Cove Point LNG requested authorization to construct and operate an 825 MMcf/d liquefaction and export facility at the existing import terminal in Calvert County, MD and to increase the capacity of the existing Cove Point pipeline currently delivering gas to the import terminal by 860 MMcf/d.
- Empire and National Fuel commenced the Commission's pre-filing process to construct and operate the Tuscarora Lateral Project which will provide 55 MMcf/d of transportation capacity and 0.6 Bcf of storage capacity in NY and PA.
- CE FLNG commenced the Commission's pre-filing process to construct and operate a 1,070 MMcf/d liquefaction and export facility in Plaquemines Parish, LA, and related pipeline facilities to deliver 2,000 MMcf/d to the LNG facility.

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service	1			220.0	0.0	10,000
Certificated	0			0.0	0.0	0
Proposed	5			3,061.0	102.6	80,940
Storage						
Placed in Service	2	23.9	1,020			9,500
Certificated	1	0.4	0			0
Proposed	1	0.6	0			0
LNG (Import & Export	t)					
Placed in Service	0	0	0			0
Certificated (Export)	0	0	0			0
Proposed (Export)	2	10.6	1,895			0

Source: Staff Database

Natural Gas Activities through April 30, 2013 Through April 30, 2012

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service through April 30, 2012	4 2			531.0 250.0	10.2 <u>3.8</u>	25,400 0
Certificated through April 30, 2012	11 6			2,411.7 <mark>899.3</mark>	78.1 27.6	61,550 <mark>30,090</mark>
Storage						
Placed in Service through April 30, 2012	3 4	24.1 <mark>5.2</mark>	1,020 <mark>150</mark>			9,500 <mark>15,300</mark>
Certificated through April 30, 2012	6 3	24.9 47.2	765 300			9,240 <mark>19,000</mark>
LNG (Import & Export)						
Placed in Service through April 30, 2012	0 0	0 0	0 0			0
Certificated (Export) through April 30, 2012	0 1	0 0	0 2,600			0 0



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Hydropower Highlights (nonfederal)

- Mr. William Arkoosh was issued an original license for the proposed 1.230 MW Little Wood River Ranch II Hydroelectric Project No. 14154. The project will be located on the Little Wood River, near the City of Shoshone, in Lincoln County, ID.
- Carbon Zero, LLC was issued an original license for the proposed 0.360 MW Vermont Tissue Mill Hydroelectric Project No. 14308. The project will be located on the Walloomsac River, near the towns of Bennington and North Bennington, in Bennington County, VT.
- The Town of Stuyvesant and Albany Engineering Corporation were issued a new license for the existing Stuyvesant Falls Hydroelectric Project No. 2696. The new license authorizes an increase in total capacity from 2.800 MW to 4.320 MW. The project is located on Kinderhook Creek, in Columbia County, NY.
- Eagle Creek Hydropower LLC was issued an order amending license and revising annual charges for the Rio Hydroelectric Project No. 9690, located on the Mongaup River in Orange County, NY. The order approved the construction and installation of a new powerhouse with a single turbine-generating unit, increasing the installed capacity by 0.800 MW to 10.800 MW.
- The Warmsprings Irrigation District filed an original license application for the proposed 2.700 MW Warmsprings Dam Hydroelectric Project No. 13570. The project would be located at the U.S. Bureau of Reclamation's Warm Springs Dam, on the Malheur River, in Malheur County, OR.
- Baker County, Oregon, filed an original license application for the proposed 3.400 MW Mason Dam Hydroelectric Project No. 12686. The project would be located at the U.S. Bureau of Reclamation's Mason Dam, on the Powder River, in Baker County, OR.
- Tygart, LLC filed an original license application for the proposed 30.000 MW Tygart Hydroelectric Project No. 12613. The project would be located on the Tygart River, in Taylor County, WV.

	Conventional		Pumped Storage		Hydrokinetic		Total No.	Total
Status	No.	Capacity (MW)	No.	Capacity (MW)	No.	Capacity (MW)	of Projects	(MW)
Filed								
License	3	36.100	0	0	0	0	3	36.100
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	3	3.110	0	0	0	0	3	3.110
5-MW Exemption	0	0	0	0	0	0	0	0
Capacity Amendment	1	0.800	0	0	0	0	1	0.800
Conduit Exemption	0	0	0	0	0	0	0	0
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

Hydropower Activities in April 2013

Source: Staff Database



Office of Energy Projects Energy Infrastructure Update

For April 2013

Hydropower Activities Year to Date (through April 30, 2013)

	Conventional		Pumped Storage		Hydrokinetic		Total No	Total	
Status	No.	Capacity (MW)	No.	Capacity (MW)	No.	Capacity (MW)	of Projects	Capacity (MW)	
Filed									
License	3	36.100	0	0	0	0	3	36.100	
5-MW Exemption	0	0	0	0	0	0	0	0	
Capacity Amendment	0	0	0	0	0	0	0	0	
Conduit Exemption	4	0.552	0	0	0	0	4	0.552	
Issued									
License	4	3.560	0	0	0	0	4	3.560	
5-MW Exemption	2	0.248	0	0	0	0	2	0.248	
Capacity Amendment	2	7.375	0	0	0	0	2	7.375	
Conduit Exemption	3	0.500	0	0	0	0	3	0.500	
Placed in Service	Placed in Service								
License	1	4.400	0	0	0	0	1	4.400	
5-MW Exemption	0	0	0	0	0	0	0	0	
Capacity Amendment	2	0.960	0	0	0	0	2	0.960	
Conduit Exemption	1	0.037	0	0	0	0	1	0.037	

Source: Staff Database

Electric Generation Highlights

- Florida Power & Light Company's 1,157 MW gas-fired Cape Canaveral Next Generation Clean Energy Center in Brevard County, FL is online. The plant was constructed on the site of a 1960s-era plant that was removed in 2010. The new plant generates nearly twice the amount of power than the previous plant and uses 33 percent less fuel.
- Apple Data Centers' 5.2 MW biogas-fired fuel cells Phase 3 expansion in Matawba County, NC is online. Phases 1 and 2 consist of a 21 MW solar unit and a 4.8 MW landfill gas-fired fuel cells unit, respectively. Phase 4, a 20 MW solar unit, is expected to come online in June 2013.
- PPL Montana LLC's 62 MW Rainbow hydroelectric expansion project near Great Falls, MT is online. Smaller units from the 1910 to 1930 era with a combined 35 MW were replaced with the single 62 MW unit, increasing the power generated by 70 percent.
- SolarVision, LLC's 5 MW Celina Solar Project I in Mercer County, OH is online. This solar project will produce enough power to meet about 8 percent of the City of Celina's total energy demand.
- Arizona Public Service Co.'s 17 MW Foothills Solar Power Plant in Yuma, AZ is online. A second phase with 18 MW is expected to come online by year end.
- Light Beam Energy Inc's 1.7 MW Gridley Main One Solar and 2.5 MW Gridley Main Two Solar in Butte County, CA are online. The power generated by each solar facility is sold to the City of Gridley and to the San Francisco Bay Area Rapid Transit under long-term contracts, respectively.
- Warsaw Solar 2 LLC's 2 MW Warsaw Solar 2 in Duplin County, NC is online. The power generated is sold to Progress Energy Carolinas under long-term contract.
- Hannon Strong Solar LLC's 1.4 MW Fort Bliss Solar in El Paso County, TX is online. The power generated is sold to the U.S. Army Fort Bliss under a long-term contract.



For April 2013

New Generation In-Service (New Build and Expansion)

	April 2013		Janua C	ry – April 2013 Sumulative	January – April 2012 Cumulative		
Primary Fuel Type	No. of Installed Capacity Units (MW)		No. of Units	No. of Installed Capacity Units (MW)		Installed Capacity (MW)	
Coal	0	0	0	0	1	808	
Natural Gas	2	1,224	10	1,565	37	2,875	
Nuclear	0	0	0	0	0	0	
Oil	0	0	0	0	11	21	
Water	1	62	7	71.4	1	0.430	
Wind	0	0	7	958	38	1,636	
Biomass	0	0	30	49	47	119	
Geothermal Steam	0	0	0	0	4	72	
Solar	9	33	56	845	94	348	
Waste Heat	0	0	0	0	0	0	
Other	0	0	0	0	0	0	
Total	12	1,319	110	3,487	233	5,878	

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

Installed Capacity (GW) % of Total Capacity Coal 336.30 28.94% **Natural Gas** 492.88 42.40% Nuclear 107.10 9.22% Oil 41.03 3.53% Water 99.07 8.52% Wind 60.10 5.17% **Biomass** 15.16 1.30% **Geothermal Steam** 3.75 0.32% Solar 5.14 0.44% Waste Heat 0.69 0.06% Other 1.04 0.09% Total 1,162.26 100.00%

Total Installed Operating Generating Capacity

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

Electric Transmission Highlights

- Southern California Edison has completed the 10 mile, 230 kV Highwind Windhub Transmission Project. The \$46 • million project is a part of the Tehachapi Renewable Transmission Project in Kern County, CA.
- Clean Line Energy Partners has agreed to purchase the 200 mile, 345 kV Central New Mexico Collector Project. The project is estimated to cost \$400 million.



For April 2013

		Trans	Proposed Transmission Projects In-Service by April 2015			
Voltage (kV)	April 2013	April 2012	January –April 2013 Cumulative	High Probability of Completion	All	
(1. 7)			Lin	e Length (miles)		
≤230	10.0	0	56.5	709.6	1,000.1	4,197.0
345	0	120.0	362.0	1,069.6	6,703.4	8,937.2
500	0	0	0	184.1	1,532.4	4,689.4
Total U.S.	10.0	120.0	418.5	1,963.3	9,235.9	17,823.6

Sources: Data derived from Staff Database and U.S. Electric Transmission Projects ©2013 The C Three Group, LLC



Transmission Projects with a High Probability of being completed by April 2015





New Transmission Projects by Voltage

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