Office of Energy Projects
Energy Infrastructure Update
For May 2011

Natural Gas Highlights

- Denali withdrew its pre-filing request to construct and operate an Alaska pipeline due to lack of customer support needed to continue advancing the project.
- Golden Pass placed into service the Phase II facilities to its LNG terminal near Sabine Pass, Texas. The Phase II facilities will increase the sendout capacity of the terminal by 1 Bcf/d to 2 Bcf/d.
- Questar received authorization to construct and operate its ML104 Extension Project which will provide 160 MMcf/d of additional capacity for transportation of Uintah Basin gas in Utah.
- Empire received authorization to construct and operate its Tioga Expansion Project which will provide 350 MMcf/d of additional capacity for the transportation of Marcellus Shale gas in Tioga County, Pennsylvania.
- Pine Prairie received authorization to expand the working gas capacity in its Pine Prairie Energy Center, salt dome storage facility in Southern Louisiana from 48 Bcf to 80 Bcf.
- Columbia Gas filed an application to construct and operate facilities necessary to transport 246 MMcf/d of gas to Virginia Electric and Power Company's planned 1,329 MW generation facilities in Warren County, Virginia.

Natural Gas Activities in May 2011

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service	2			635.0	61.8	40,310
Certificated	2			510.0	41.0	0
Proposed	1			246.0	2.5	0
Storage						
Placed in Service	2	3.3	5			0
Certificated	2	34.1	605			11,500
Proposed	0	0.0	0			0
LNG						
Placed in Service	1	6.56	1,000			0
Certificated	0	0	0			0
Proposed	0	0	0			0

Source: Staff Database

Natural Gas Activities through May 31, 2011
Through May 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 May 31, 2010	10 8			6,038.5 4,600.2	723.4 209.3	431,045 123,005
Certificated through May 31, 2010	4 10			1,198.0 5,715.5	61.5 1,405.5	59,265 431,274
Storage						
Placed in Service through May 31, 2010	5 4	15.3 28.8	2,545 903			6,283 0
Certificated through May 31, 2010	6 6	103.3 43.9	2,720 640			58,710 15,783
LNG						
Placed in Service through May 31, 2010	1 0	16.4 0	2,000 0			0 0
Certificated through May 31, 2010	0 0	0 0	0 0			0 0

Source: Staff Database

Hydropower Highlights

- On May 18, 2011, DHL staff issued a new license for the City of Kaukauna, Wisconsin's (Kaukauna) 9.4-MW Badger-Rapide Croche Hydroelectric Project No. 2677. The project is located at the U.S. Army Corps of Engineers' Kaukauna (Badger Development) and Rapide Croche (Rapide Croche Development) dams on the Fox River in Outagamie County, Wisconsin. The license authorizes Kaukauna to decommission the old Badger powerhouse and construct a new Badger powerhouse increasing the installed capacity from 8 MWs to 9.4 MWs.
- On May 9, 2011, Konohiki Hydro Power LLC filed a conduit exemption application for the proposed 5.3-MW Puu Lua Project located in Kauai County, Hawaii, and the project would generate 32.49 GWh annually.

Hydropower Activities in May 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	0	0	0	0	0	0	0	0
Capacity Amendment	1	0.170	0	0	0	0	1	0.170
Conduit Exemption	1	5.300	0	0	0	0	1	5.300
Issued								
License	1	1.400	0	0	0	0	1	1.400
5-MW Exemption	0	0	0	0	0	0	0	0
Capacity Amendment	1	1.800	0	0	0	0	1	1.800
Conduit Exemption	1	1.300	0	0	0	0	1	1.300
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 Year to Date (through May 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	8	258.4225	0	0	0	0	8	258.4225
5-MW Exemption	4	1.346	0	0	0	0	4	1.346
Capacity Amendment	5	20.440	0	0	0	0	5	20.440
Conduit Exemption	2	5.375	0	0	0	0	2	5.375
Issued								
License	4	47.790	0	0	0	0	4	47.790
5-MW Exemption	0	0	0	0	0	0	0	0
Capacity Amendment	7	14.418	0	0	0	0	7	14.418
Conduit Exemption	3	1.650	0	0	0	0	3	1.650
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	1	3.000	0	0	0	0	1	3.000
Conduit Exemption	3	1.340	0	0	0	0	3	1.340

Source: Staff Database

Electric Generation Highlights

- Ormat Technologies has brought its 15-MW Jersey Valley Geothermal Project in Nevada online. According to NV Energy, its geothermal projects provide 60 percent of the state's renewable energy.
- Whelan Energy Center Unit 2 (WEC2), the 220-MW coal-fired generating facility near Hasting, Nebraska is in commercial operation. WEC2 is owned and operated by the Public Power Generation Agency, which consists of five public utilities in Nebraska and South Dakota.
- TransCanada Corp's announced the completion of 726-MW natural gas-fired Coolidge Generating Station in Coolidge, Arizona. Salt River Project has signed a 20-year power purchase agreement to purchase all power from the 12 turbine facility.
- NV Energy's 484-MW gas-fired combined cycle Harry Allen Expansion is online. With this, NV Energy now owns nearly 80 percent of the generation necessary to meet Southern Nevada's power needs.
- Dominion Virginia Power's 580-MW Bear Garden Power Station in central Virginia began commercial operation. The station features two combustion turbine units fired by natural gas with oil as a backup fuel. Bear Garden will produce enough electricity to power 146,000 homes.
- The Berkshire Wind Power Project, Massachusetts' largest wind farm, came online. The 15-MW wind farm is atop of Brodie Mountain and is rated a Class 6 wind resource. Berkshire Wind is expected to operate at a 40 percent capacity factor to produce enough electricity to power 6,000 homes in 14 Massachusetts municipalities.
- E Light Wind and Solar, Inc.'s 6-MW photovoltaic system at the U.S. Air Force Academy in Colorado Springs, Colorado came online. This project consists of 18,888 solar panels on a 30-acre site.
- Montauk Energy's 3.2-MW landfill gas-to-energy project in McKinney, northeast of Dallas, Texas came online. This project involves capturing, piping and combustion of methane produced at the 65-acre landfill site. Raytheon Company is acquiring the electricity from the McKinney Landfill to power five of its North Texas facilities.
- According to IHS CERA, of the total installed coal-fired generation totaling 316 GW, 8.9 GW (3 percent of the fleet) are committed to retire by 2020, 5.9 GW of which are set to retire by 2015. Another 8.5 GW (3 percent of the fleet) have been proposed to retire by 2020, 5.0 GW of which by 2015. The South and the Northeast regions have the majority of the announced retirements, with 8.0 GW and 5.2 GW respectively.

New Generation In-Service (New Build and Expansion)

	May 2011		January – May 2011 Cumulative		January – May 2010 Cumulative	
Primary Fuel Type	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)
Coal	5	220	8	835	18	4,812
Natural Gas	14	1,790	29	3,673	43	2,538
Nuclear	0	0	0	0	0	0
Oil	0	0	0	0	3	5
Water	0	0	5	4	10	19
Wind	1	1	39	1,619	30	1,340
Biomass	7	7	31	80	39	113
Geothermal Steam	1	15	2	23	0	0
Solar	6	13	52	136	16	29
Waste Heat	0	0	7	135	2	20
Other	0	0	0	0	0	0
Total	34	2,060	173	6,504	161	8,875

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

Total Installed Operating Generation Capacity

Primary Fuel Type	Installed Capacity (GW)	% of Total Capacity
Coal	343.79	30.29%
Natural Gas	472.29	41.61%
Nuclear	105.09	9.26%
Oil	52.65	4.64%
Water	99.14	8.74%
Wind	41.86	3.69%
Biomass	13.44	1.18%
Geothermal Steam	3.39	0.30%
Solar	1.27	0.11%
Waste Heat	0.96	0.08%
Other	1.02	0.09%
Total	1,134.89	100.00%

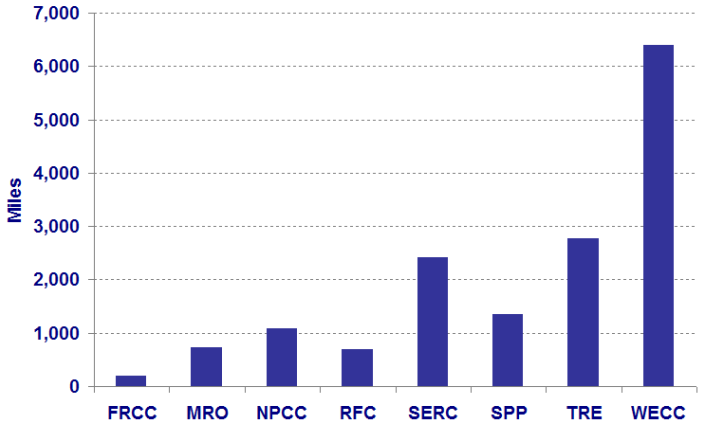
Source: Data derived from Ventyx Global LLC, Velocity Suite.

Electric Transmission Highlights

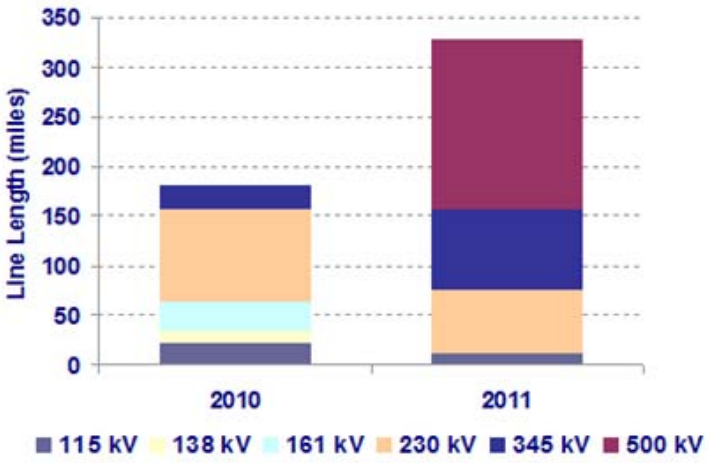
- Alstom has been awarded a contract by Tres Amigas LLC to design the DC converter technology for their substation in New Mexico. The Tres Amigas project will be designed to move renewable energy from the Western Interconnection to the Eastern Interconnection via the Southwest Power Pool Inc. and the Electric Reliability Council of Texas (ERCOT). The project will be built in two phases. The first phase will connect the Eastern Interconnection and the Western Interconnection and the second phase will link in ERCOT. The project is expected to be completed by the end of 2014.
- On May 11, the Brattle Group released a report that estimated the U.S. transmission investment will range between $12 billion and $16 billion annually through 2030. The report also noted an increase in transmission investments over the past decade due in part to reliability needs and the replacement or upgrading of aging facilities.
- The final segments of the 500kV Trans-Allegheny Interstate Line (TrAIL) has been completed and energized. TrAIL crosses Southwestern Pennsylvania, northern West Virginia and Northern Virginia. The $960 million project was completed ahead of schedule.
- On May 31, the North American Electric Reliability Corporation (NERC) released its 2011 Summer Reliability Assessment. The NERC regions are not expecting any significant transmission outages during the summer and expect to have enough transmission capacity to handle temporary outage.

	Transmission Projects Completed		Proposed Transmission Projects In-Service by May 2013	
Voltage (kV)	May 2011	May 2010	High Probability of Completion	All
	Line Length (miles)			
≤230	75.0	155.3	3,302.0	5,824.0
345	82.0	25.0	3,718.2	5,183.3
500	169.3	0	1,342.3	4,607.0
Total U.S.	326.3	180.3	8,362.5	15,614.3

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



Transmission Projects Completed in May



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