



Office of Energy Projects Energy Infrastructure Update For July 2014

Natural Gas Highlights

- Freeport LNG received authorization to construct and operate an LNG export terminal (1.8 Bcf/d) at Freeport LNG's existing Quintana Island import terminal located near the city of Freeport, in Brazoria County, TX.
- Colombia Pipeline requested authorization to construct and operate a border facility which will provide 1,120 MMcf/d of capacity to Mexico at the international boundary between the U.S. and Mexico in Webb County, TX.
- KM Louisiana requested authorization to construct and operate its Lake Charles Expansion Project which will provide 1,400 MMcf/d of north-to-south capacity for Magnolia LNG for its proposed export terminal near Lake Charles, LA.
- Golden Pass LNG and Golden Pass Pipeline requested authorization to construct and operate an LNG export terminal (2.1 Bcf/d) at Golden Pass's existing import terminal in Sabine Pass, TX., and pipeline facilities to provide 2,500 MMcf/d of bi-directional capacity on Golden Pass Pipeline's existing system to serve the proposed terminal.
- National Fuel and Empire commenced the Commission's pre-filing process to construct and operate the Northern Access 2016 Project which will provide 350 MMcf/d of capacity for shippers to serve markets in the northeastern U.S.
- Columbia Gulf commenced the Commission's pre-filing process to construct and operate its Cameron Access Project which will provide 800 MMcf/d of capacity to the proposed Cameron LNG export facility in Cameron Parish, LA.

Natural Gas Activities in July 2014

| Status | No. of Projects | Storage Capacity (Bcf) | Deliverability (MMcf/d) | Capacity (MMcf/d) | Miles of Pipeline | Compression (HP) |
|----------------------------------|-----------------|------------------------|-------------------------|-------------------|-------------------|------------------|
| Pipeline | | | | | | |
| Placed in Service | 1 | | | 230.0 | 7.6 | 0 |
| Certificated | 3 | | | 109.7 | 32.8 | 9,470 |
| Proposed | 10 | | | 6,680.7 | 262.3 | 222,565 |
| Storage | | | | | | |
| Placed in Service | 0 | 0.0 | 0 | | | 0 |
| Certificated | 1 | 0.0 | 0 | | | 2,000 |
| Proposed | 0 | 0.0 | 0 | | | 0 |
| LNG (Import & Export) | | | | | | |
| Placed in Service | 0 | 0 | 0 | | | 0 |
| Certificated (Export) | 1 | 0 | 1,800 | | | 0 |
| Proposed (Export) | 2 | 4.4 | 2,400 | | | 0 |

Source: Staff Database

Natural Gas Activities through July 31, 2014

Through July 31, 2013

| Status | No. of Projects | Storage Capacity (Bcf) | Deliverability (MMcf/d) | Capacity (MMcf/d) | Miles of Pipeline | Compression (HP) |
|----------------------------------|-----------------|------------------------|-------------------------|-------------------|-------------------|------------------|
| Pipeline | | | | | | |
| Placed in Service | 7 | | | 808.2 | 57.9 | 30,950 |
| through July 31, 2013 | 8 | | | 1,252.0 | 12.9 | 69,660 |
| Certificated | 19 | | | 5,851.9 | 222.0 | 213,623 |
| through July 31, 2013 | 17 | | | 3,196.6 | 103.7 | 61,550 |
| Storage | | | | | | |
| Placed in Service | 5 | 17.25 | 110 | | | 4,800 |
| through July 31, 2013 | 10 | 38.7 | 2,282 | | | 56,620 |
| Certificated | 3 | 1.2 | 0 | | | 2,500 |
| Through July 31, 2013 | 11 | 31.6 | 766 | | | 9,240 |
| LNG (Import & Export) | | | | | | |
| Placed in Service | 0 | 0 | 0 | | | 0 |
| through July 31, 2013 | 0 | 0 | 0 | | | 0 |
| Certificated (Export) | 3 | 3.4 | 4,060 | | | 0 |
| through July 31, 2013 | 0 | 0 | 0 | | | 0 |

Source: Staff Database



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Hydropower Highlights (nonfederal)

- Ketchikan Public Utilities placed into service the 4.6-MW Whitman Lake Project No. 11841. The project is located 4 miles east of Ketchikan, in Ketchikan Gateway Borough, AK. The project operates with water withdrawn from the existing Whitman Lake, which is an existing impoundment of Whitman Creek, and is augmented by flows from a new diversion on Achilles Creek. Whitman Lake continues to serve as the water supply for a downstream fish hatchery
- Sacramento Municipal Utility District was issued a new license for the existing 637.3 MW Upper American River Hydroelectric Project No. 2101. The license authorizes construction of the proposed 400 MW Iowa Hill Pumped Storage Development as part of the project. The project is located on the Rubicon River, Silver Creek, and South Fork American River in El Dorado and Sacramento Counties, CA.
- 5440 Hydro, Inc. filed an exemption application for the proposed 0.6 MW Brooklyn Dam Hydroelectric Project No. 13806. The project would be located on the Upper Ammonoosuc River in Coos County, NH.

Hydropower Activities in July 2014

| 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 |
| 10-MW Exemption | 1 | 0.600 | 0 | 0 | 0 | 0 | 1 | 0.600 |
| Capacity Amendment | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Conduit Exemption | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Issued | | | | | | | | |
| License | 0 | 0 | 1 | 400.000 | 0 | 0 | 1 | 400.000 |
| 10-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 |
| Placed in Service | | | | | | | | |
| License | 1 | 4.600 | 0 | 0 | 0 | 0 | 1 | 4.600 |
| 10-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, 2014)

| Status | Conventional | | Pumped Storage | | Hydrokinetic | | Total No. of Projects | Total Capacity (MW) |
|--------------------|--------------|---------------|----------------|---------------|--------------|---------------|-----------------------|---------------------|
| | No. | Capacity (MW) | No. | Capacity (MW) | No. | Capacity (MW) | | |
| Filed | | | | | | | | |
| License | 12 | 172.800 | 0 | 0 | 0 | 0 | 12 | 172.800 |
| 10-MW Exemption | 2 | 1.800 | 0 | 0 | 0 | 0 | 2 | 1.800 |
| Capacity Amendment | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Conduit Exemption | 2 | 49.400 | 0 | 0 | 0 | 0 | 2 | 49.400 |
| Issued | | | | | | | | |
| License | 6 | 135.920 | 3 | 1,736.000 | 1 | 0.600 | 10 | 1,872.520 |
| 10-MW Exemption | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Capacity Amendment | 1 | 1.295 | 0 | 0 | 0 | 0 | 1 | 1.295 |
| Conduit Exemption | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



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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 | 3 | 11.805 | 0 | 0 | 0 | 0 | 3 | 11.805 |
| 10-MW Exemption | 1 | 0.700 | 0 | 0 | 0 | 0 | 1 | 0.700 |
| 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

- Blue Renewable Energy IMS LLC's 9 MW Indianapolis Motor Speedway Solar Farm project in Marion County, IN is online. The power generated is sold to Indianapolis Power and Light under long-term contract.
- Ugt Renewable Energy 10 LLC's 5.9 MW Lancaster Solar Project in Middlesex County, MA is online. The power generated is sold to the City of Billerica under long-term contract.
- Clarendon Solar Farm LLC's 2.5 MW Clarendon Solar Farm project in Rutland County, VT is online. The power generated is sold to Vermont Electric Power Producers Inc. under long-term contract.
- Ikea Group's 2.4 MW Ikea Perryville Distribution Center Solar Expansion project in Cecil County, MD is online. The power generated is used on-site by Ikea Group.
- E.ON Climate and Renewables' 218 MW Panhandle Wind Farm Phase 1 project in Carson County, TX is online. The power generated is sold to Citigroup Energy Inc. under long-term contract.
- Spinning Spur Wind LLC's 161 MW Spinning Spur Two Wind phase 2 project in Oldham County, TX is online. The power generated is sold to Exelon Generation Co. LLC under long-term contract.

New Generation In-Service (New Build and Expansion)

| Primary Fuel Type | July 2014 | | January – July 2014 Cumulative | | January – July 2013 Cumulative | |
|-------------------|--------------|-------------------------|--------------------------------|-------------------------|--------------------------------|-------------------------|
| | No. of Units | Installed Capacity (MW) | No. of Units | Installed Capacity (MW) | No. of Units | Installed Capacity (MW) |
| Coal | 0 | 0 | 0 | 0 | 2 | 1,543 |
| Natural Gas | 0 | 0 | 20 | 2,185 | 58 | 5,277 |
| Nuclear | 0 | 0 | 0 | 0 | 0 | 0 |
| Oil | 0 | 0 | 3 | 11 | 10 | 34 |
| Water | 2 | 5 | 6 | 19 | 13 | 116 |
| Wind | 2 | 379 | 22 | 1,196 | 10 | 963 |
| Biomass | 0 | 0 | 28 | 87 | 60 | 181 |
| Geothermal Steam | 0 | 0 | 5 | 32 | 1 | 14 |
| Solar | 5 | 21 | 124 | 1,226 | 156 | 1,297 |
| Waste Heat | 0 | 0 | 0 | 0 | 2 | 76 |
| Other | 0 | 0 | 2 | 1 | 2 | 0 |
| Total | 9 | 405 | 210 | 4,758 | 314 | 9,502 |

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



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Total Installed Operating Generating Capacity

| | Installed Capacity (GW) | % of Total Capacity |
|------------------|-------------------------|---------------------|
| Coal | 329.16 | 28.45% |
| Natural Gas | 487.51 | 41.82% |
| Nuclear | 107.41 | 9.24% |
| Oil | 46.40 | 4.03% |
| Water | 99.67 | 8.57% |
| Wind | 61.95 | 5.26% |
| Biomass | 15.94 | 1.37% |
| Geothermal Steam | 3.87 | 0.33% |
| Solar | 9.31 | 0.75% |
| Waste Heat | 1.13 | 0.10% |
| Other | 0.80 | 0.07% |
| Total | 1,163.14 | 100.00% |

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

Electric Transmission Highlights

- Minnkota Power Cooperative has completed the 250 mile, 345 kV Center – Prairie Transmission Line. The \$353 million project is located in ND.

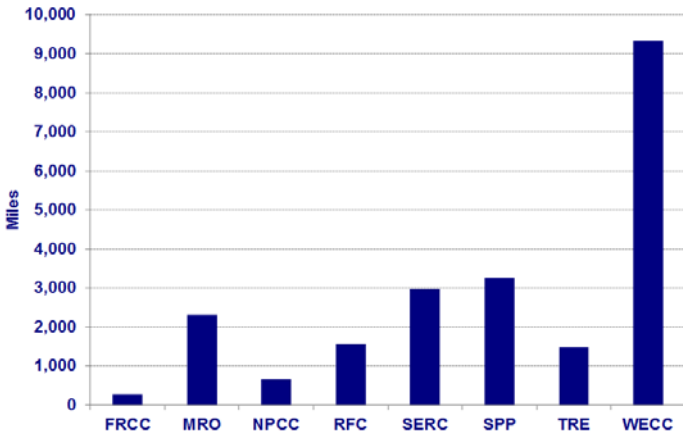
| Voltage (kV) | Transmission Projects Completed | | | | Proposed Transmission Projects In-Service by July 2016 | |
|-------------------|---------------------------------|--------------|--------------------------------|------------------------------------|--|-----------------|
| | July 2014 | July 2013 | January – July 2014 Cumulative | January – December 2013 Cumulative | High Probability of Completion | All |
| | Line Length (miles) | | | | | |
| ≤230 | 0.0 | 47.0 | 288.0 | 470.2 | 4,236.0 | 7,752.0 |
| 345 | 250.0 | 228.1 | 669.3 | 2,795.2 | 4,972.8 | 7,730.4 |
| ≥500 | 0.0 | 0.0 | 62.0 | 466.0 | 2,326.7 | 6,343.0 |
| Total U.S. | 250.0 | 275.1 | 1,019.3 | 3,731.4 | 11,535.5 | 21,825.4 |

Sources: Data derived from Staff Database and U.S. Electric Transmission Projects ©2014 The C Three Group, LLC

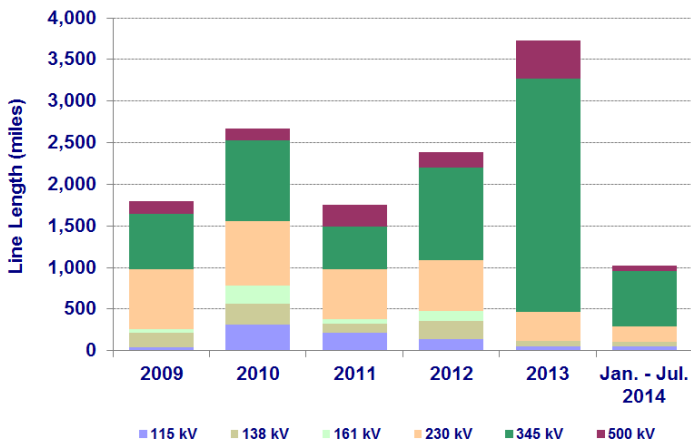
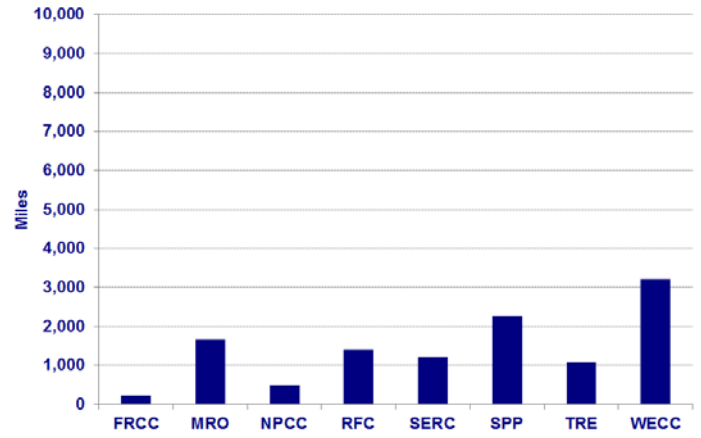


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All Transmission Projects with a Proposed In-Service Date by July 2016



Transmission Projects with a High Probability of being completed by July 2016



Sources: Data derived from Staff Database and U.S. Electric Transmission Projects ©2014 The C Three Group, LLC

Disclaimer: This Report contains analyses, presentations and conclusions that may be based on or derived from the data sources cited, but do not necessarily reflect the positions or recommendations of the data providers.