



Office of Energy Projects Energy Infrastructure Update *For June 2016*

Natural Gas Highlights

- Texas Gas received authorization to place into service its Southern Indiana Market Lateral Project which will provide 53.5 MMcf/d of capacity to serve SABIC Innovative Plastics's existing chemical manufacturing plant and planned co-generation plant in Mt. Vernon, IN.
- Kaiser-Frontier Midstream received authorization to place into service the Southern Segment of its Silo Pipeline Project. This segment completes the project and will provide capacity to an interconnection with Wyoming Interstate Company at the Cheyenne Hub in Weld County, CO.
- Kern River received authorization to place into service its Summerlin Pipe Replacement Project which will replace a segment of its pipeline in Clark County, NV with thicker wall pipe in order to comply with a class location change by DOT and PHMSA.
- WBI Energy Transmission placed into service facilities in ND that will provide 18 MMcf/d of capacity from the Bakken area to an interconnection with Northern Border in McKenzie County, ND.
- First ECA Midstream received authorization to own, operate, and maintain an existing pipeline located in Clearfield and Elk Counties PA, as an interstate pipeline. This pipeline will provide 152 MMcf/d of bi-directional capacity from producing areas to Dominion and National Fuel with further deliveries to NRG REMA, LLC's power plant located in Shawville, PA.
- Southern Natural received authorization to construct and operate its SNG Zone 3 Expansion Project which will provide 235 MMcf/d of capacity to its existing system in GA, TN, SC, and FL to serve markets in the Southeastern U.S.
- Elba Express Pipeline received authorization to construct and operate its EEC Expansion Project which will provide 769 MMcf/d of north-to-south capacity on its existing system to serve Southern LNG's Elba Island export terminal located on Elba Island, GA.
- Elba Liquefaction and Southern LNG received authorization to construct and operate an LNG export terminal at Southern LNG's existing import terminal on Elba Island in Chatham County, GA. The export terminal will provide 350 MMcf/d of deliverability from two trains.
- Dominion Carolina Gas received authorization to construct and operate its Columbia to Eastover Project which will provide 18 MMcf/d of capacity to serve International Paper Company's pulp and paper mill located in Richmond County, SC.
- Northern Natural received authorization to construct and operate its Gaines County Crossover Compressor Project located in Gaines County, TX which will provide 210 MMcf/d of capacity to meet customer requirements in Northern Natural's Field Area.
- Gulf South received authorization to construct and operate its Coastal Bend Header Project which will provide 1,420 MMcf/d of capacity to serve the Freeport LNG export facility on Quintana Island in Brazoria County, TX.
- Impulsora Pipeline received authorization to vacate a portion of the pipeline facilities previously authorized but not yet constructed at the International Boundary between the U.S. and Mexico located in Webb County, TX.
- MoGas Pipeline received authorization to abandon jurisdictional pipeline facilities in MO and IL by transfer of ownership to an affiliate, CorEnergy Pipeline, and to lease the facilities back for continued operation by MoGas Pipeline.
- The Commission granted a service area determination to allow Pike County to continue to own and operate a 6-inch diameter gas distribution pipeline at the PA/NY border. The Commission also found that Pike County qualifies as a LDC for purposes of Section 311.
- East Cheyenne Gas Storage received authorization to expand, in part, the certificated boundaries of the East Cheyenne Gas Storage Project reservoirs in the West Peetz and Lewis Creek fields located in Logan County, CO.
- Northern Natural requests authorization to construct and operate its Northern Lights 2017 Expansion Project which would increase its system in Isanti, Sherburne, and Rice Counties, MN by 75.9 MMcf/d to serve market needs in MN.
- TransCameron Pipeline requests authorization to amend its proposal to construct and operate pipeline facilities to provide capacity to the proposed Venture Global Calcasieu Pass LNG export terminal in Cameron Parish, LA. TransCameron Pipeline would remove its proposed West Lateral and increase the capacity of the pipeline by 225 MMcf/d to 2,125 MMcf/d.
- Texas Eastern requests authorization to construct and operate its Bayway Lateral Project which would provide 300 MMcf/d of capacity to service Phillips 66 Company's Bayway Refinery and Cogen Technologies Linden Venture's cogeneration plant located in Linden, NJ.
- Driftwood LNG and Driftwood LNG Pipeline commenced the Commission's pre-filing process to construct and operate an LNG export terminal near Carlyss, Calcasieu Parish, LA, and associated pipeline facilities which would provide 4,000 MMcf/d of capacity to the proposed terminal. The Driftwood LNG terminal would provide 4,000 MMcf/d of export deliverability.



Office of Energy Projects Energy Infrastructure Update For June 2016

- Tennessee withdrew its proposal to construct and operate its Northeast Energy Direct Project which would have provided 1,200 MMcf/d of capacity from Troy, PA to Wright, NY and 1,300 MMcf/d of capacity from Wright, NY to Dracut MA.

Natural Gas Activities in June 2016

| Status | No. of Projects | Storage Capacity (Bcf) | Deliverability (MMcf/d) | Capacity (MMcf/d) | Miles of Pipeline | Compression (HP) |
|----------------------------------|-----------------|------------------------|-------------------------|-------------------|-------------------|------------------|
| Pipeline | | | | | | |
| Placed in Service | 4 | | | 71.7 | 46.7 | 1,380 |
| Certificated | 7 | | | 2,804.0 | 113.6 | 289,534 |
| Proposed | 4 | | | 4,600.9 | 82.1 | 166,900 |
| Storage | | | | | | |
| Placed in Service | 0 | 0.0 | 0.0 | | | 0 |
| Certificated | 0 | 0.0 | 0.0 | | | 0 |
| Proposed | 0 | 0.0 | 0.0 | | | 0 |
| LNG (Import & Export) | | | | | | |
| Placed in Service | 0 | 0 | 0 | | | 0 |
| Certificated (Import/Export) | 1 | 0 | 350 | | | 0 |
| Proposed (Export) | 1 | 15.5 | 4,000 | | | 0 |

Source: Staff Database

Natural Gas Activities through June 30, 2016 January through June 30, 2015

| Status | No. of Projects | Storage Capacity (Bcf) | Deliverability (MMcf/d) | Capacity (MMcf/d) | Miles of Pipeline | Compression (HP) |
|----------------------------------|-----------------|------------------------|-------------------------|-------------------|-------------------|------------------|
| Pipeline | | | | | | |
| Placed in Service | 15 | | | 2,670.3 | 138.8 | 89,695 |
| through June 30, 2015 | 10 | | | 3,080.7 | 67.5 | 106,095 |
| Certificated | 33 | | | 13,001.9 | 977.7 | 976,659 |
| Through June 30, 2015 | 18 | | | 5,531.0 | 282.2 | 207,573 |
| Storage | | | | | | |
| Placed in Service | 0 | 0.0 | 0 | | | 0 |
| through June 30, 2015 | 2 | 2.4 | 53 | | | 0 |
| Certificated | 0 | 0.0 | 0 | | | 0 |
| through June 30, 2015 | 2 | 2.7 | 0 | | | 0 |
| LNG (Import & Export) | | | | | | |
| Placed in Service | 1 | 0 | 700 | | | 0 |
| Through June 30, 2015 | 0 | 0 | 0 | | | 0 |
| Certificated (Import/Export) | 3 | 10.2 | 2,841 | | | 0 |
| through June 30, 2015 | 1 | 0 | 1,400 | | | 0 |

Source: Staff Database



Office of Energy Projects Energy Infrastructure Update For June 2016

Hydropower Highlights (nonfederal)

- The Alaska Department of Fish and Game filed a conduit exemption application for the proposed 0.330 MW Hidden Falls Lake Hydroelectric Project No. 14785. The project would be located near the City of Sitka in Sitka Borough, AK.

Hydropower Project Activities in June 2016

| 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Capacity Amendment | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Conduit Exemption | 1 | 0.330 | 0 | 0 | 0 | 0 | 1 | 0.330 |
| Issued | | | | | | | | |
| License | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 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 Project Activities Year to Date (through June 30, 2016)

| Status | Conventional | | Pumped Storage | | Hydrokinetic | | Total No. of Projects | Total Capacity (MW) |
|--------------------------|--------------|---------------|----------------|---------------|--------------|---------------|-----------------------|---------------------|
| | No. | Capacity (MW) | No. | Capacity (MW) | No. | Capacity (MW) | | |
| Filed | | | | | | | | |
| License | 2.5 | 50.049 | 0.5 | 300.000 | 0 | 0 | 3 | 350.049 |
| 10-MW Exemption | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Capacity Amendment | 1 | 0.100 | 0 | 0 | 0 | 0 | 1 | 0.100 |
| Conduit Exemption | 2 | 0.530 | 0 | 0 | 0 | 0 | 2 | 0.530 |
| Issued | | | | | | | | |
| License | 5 | 44.262 | 0 | 0 | 0 | 0 | 5 | 44.262 |
| 10-MW Exemption | 1 | 0.220 | 0 | 0 | 0 | 0 | 1 | 0.220 |
| Capacity Amendment | 3 | 6.310 | 0 | 0 | 0 | 0 | 3 | 6.310 |
| Conduit Exemption | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Placed in Service | | | | | | | | |
| License | 3 | 198.600 | 0 | 0 | 0 | 0 | 3 | 198.600 |
| 10-MW Exemption | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Capacity Amendment | 2 | 23.600 | 0 | 0 | 0 | 0 | 2 | 23.600 |
| Conduit Exemption | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Source: Staff Database



Office of Energy Projects Energy Infrastructure Update *For June 2016*

Electric Generation Highlights

- Panda Patriot LLC's 944 MW natural gas-fired Panda Patriot Project in Lycoming County, PA is online. Fifty percent of the power generated is sold to PJM Interconnection LLC under long-term contract.
- Golden Spread Electric Cooperative, Inc.'s 404 MW natural gas-fired Elk Station Expansion Project in Floyd County, TX is online.
- Wolverine Power Supply Corp.'s 227 MW natural gas-fired Alpine Power Plant Phase 2 Expansion Project in Otsego County, MI is online.
- Brigham Young University Idaho's 5.6 MW natural gas-fired Central Energy Plant Project in Madison County, ID is online. The power generated is sold to Rocky Mountain Power under long-term contract.
- McCoy Solar LLC's 39.6 MW McCoy Solar Energy Phase 8 Expansion Project in Riverside County, CA is online. The power generated is sold to Southern California Edison Co. under long-term contract.
- Georgia Power Co.'s 30 MW Fort Benning Solar Project in Chattahoochee County, GA is online. The power generated is sold to the U.S. Army under long-term contract.
- Ridgeline Energy LLC's 20 MW Frontier I Solar Project in Stanislaus County, CA is online. The power generated is sold to the City of Palo Alto under long-term contract.
- Fresh Air Energy II LLC's 20 MW Meadows PV I Solar Project in Martin County, NC is online. The power generated is sold to Dominion Energy Inc. under long-term contract.
- Ameresco Inc.'s 18.6 MW Fort Detrick Solar Project in Frederick County, MD is online. The power generated is sold to the U.S. Army under long-term contract.
- Solar Glynn LLC's 18 MW Solar Glynn Project in Glynn County, GA is online.
- American Solar Greenworks LLC's 15 MW American Solar Greenworks Project in Los Angeles County, CA is online. The power generated is sold to Southern California Edison under long-term contract.
- SR Jenkins LLC's 13 MW SR Jenkins Fort Lupton Solar Project in Weld County, CO is online. The power generated is sold to United Power Inc. under long-term contract.
- Grindstone Solar LLC's 7 MW Grindstone Solar Project in Vigo County, IN is online. The power generated is sold to Duke Energy Indiana under long-term contract.
- GroSolar's 2.85 MW Tannery Row Landfill Solar Project in Oneida County, NY is online. The power generated is sold to the City of Rome under long-term contract.
- Indianapolis Power and Light's 20 MW Harding Street Battery Storage Project in Marion County, IN is online.
- South Plains Wind Energy II LLC's 300 MW South Plains Wind Phase II Expansion Project in Floyd County, TX is online.
- Gunsight Mountain Wind Energy LLC's 120 MW Gunsight Mountain Wind Project in Howard County, TX is online.



Office of Energy Projects Energy Infrastructure Update For June 2016

New Generation In-Service (New Build and Expansion)

| Primary Fuel Type | June 2016 | | January – June 2016 Cumulative | | January – June 2015 Cumulative | |
|-------------------|--------------|-------------------------|--------------------------------|-------------------------|--------------------------------|-------------------------|
| | No. of Units | Installed Capacity (MW) | No. of Units | Installed Capacity (MW) | No. of Units | Installed Capacity (MW) |
| Coal | 0 | 0 | 0 | 0 | 1 | 3 |
| Natural Gas | 7 | 1,587 | 47 | 6,598 | 42 | 2,180 |
| Nuclear | 0 | 0 | 0 | 0 | 0 | 0 |
| Oil | 3 | 5 | 5 | 12 | 7 | 10 |
| Water | 0 | 0 | 24 | 190 | 18 | 150 |
| Wind | 3 | 420 | 23 | 2,199 | 20 | 2,324 |
| Biomass | 0 | 0 | 18 | 47 | 21 | 226 |
| Geothermal Steam | 0 | 0 | 0 | 0 | 1 | 45 |
| Solar | 19 | 218 | 143 | 1,883 | 130 | 803 |
| Waste Heat | 0 | 0 | 0 | 0 | 0 | 0 |
| Other * | 1 | 0 | 4 | 0 | 6 | 0 |
| Total | 33 | 2,230 | 264 | 10,928 | 246 | 5,741 |

Sources: Data derived from Velocity Suite, ABB Inc. and The C Three Group LLC which include plants with nameplate capacity of 1 MW or greater. The data may be subject to update.

Total Available Installed Generating Capacity

| | Installed Capacity (GW) | % of Total Capacity |
|------------------|-------------------------|---------------------|
| Coal | 295.99 | 25.26% |
| Natural Gas | 507.02 | 43.27% |
| Nuclear | 107.06 | 9.14% |
| Oil | 44.95 | 3.84% |
| Water | 100.28 | 8.56% |
| Wind | 76.17 | 6.50% |
| Biomass | 16.69 | 1.42% |
| Geothermal Steam | 3.88 | 0.33% |
| Solar | 17.73 | 1.51% |
| Waste Heat | 1.16 | 0.10% |
| Other* | 0.77 | 0.07% |
| Total | 1,171.70 | 100.00% |

Sources: Data derived from Velocity Suite, ABB Inc. and The C Three Group LLC which include plants with nameplate capacity of 1 MW or greater. The data may be subject to update.

* "Other" includes purchased steam, tires, and miscellaneous technology such as batteries, fuel cells, energy storage, and fly wheel.

Electric Transmission Highlights

- Duquesne Light Holdings has completed the 6.5 mile, 345 kV Carson - Brunot Island Transmission Project. The underground project cost approximately \$85.1 million and is located in PA.
- Arizona Public Service Co. has completed the 43.0 mile, 500 kV Palo Verde - Delaney-Sun Valley – Morgan - Pinnacle Peak Transmission Project. The \$60 million project is located in AZ.

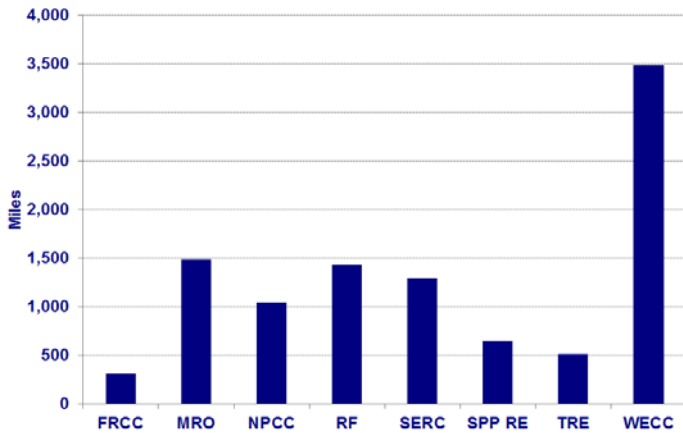


Office of Energy Projects Energy Infrastructure Update For June 2016

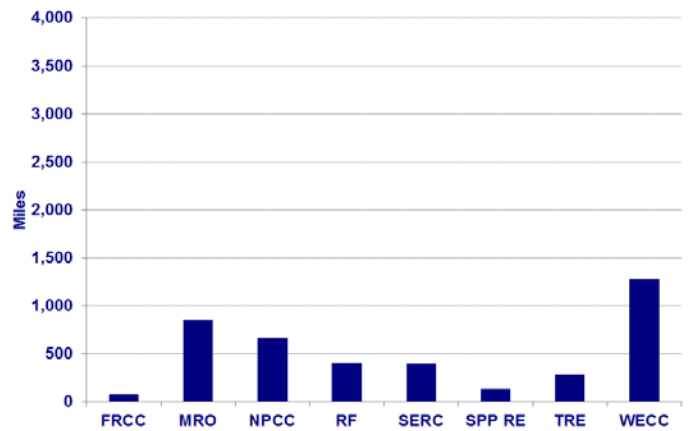
| Voltage (kV) | Transmission Projects Completed | | | | Proposed Transmission Projects In-Service by June 2018 | |
|-------------------|---------------------------------|--------------|--------------------------------|------------------------------------|--|-----------------|
| | June 2016 | June 2015 | January – June 2016 Cumulative | January – December 2015 Cumulative | High Probability of Completion | All |
| | Line Length (miles) | | | | | |
| ≤230 | 0.0 | 192.4 | 97.4 | 644.3 | 1,969.5 | 3,993.5 |
| 345 | 6.5 | 121.8 | 6.9 | 1,223.5 | 1,715.6 | 2,846.5 |
| 500 | 43.0 | 0.0 | 43.0 | 336.0 | 402.9 | 3,374.9 |
| Total U.S. | 49.5 | 314.2 | 147.3 | 2,203.8 | 4,088.0 | 10,214.9 |

Sources: Data derived from Staff Database and U.S. Electric Transmission Projects ©2016 The C Three Group, LLC.

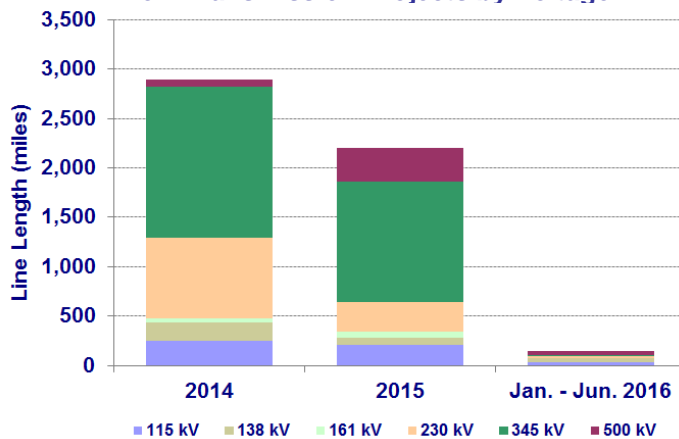
All Transmission Projects with a Proposed In-Service Date by June 2018



Transmission Projects with a High Probability of being completed by June 2018



New Transmission Projects by Voltage



Sources: Data derived from Staff Database and U.S. Electric Transmission Projects ©2016 The C Three Group, LLC.

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