



Office of Energy Projects Energy Infrastructure Update For November 2020

Natural Gas Highlights

- Transco received authorization to abandon an existing 6-inch supply lateral interconnecting with Transco's Mainline A (Shell Elba Lateral), and appurtenant metering facilities located in St. Landry Parish, LA. This lateral has not been used in the past 12 months.
- Trunkline received authorization to increase its firm North-to-South firm transportation capacity by 120 MMcf/d from south of the Tuscola Compressor Station to the Independence Compressor Station in Tate County MS.
- Transco received authorization to abandon a 16-inch supply lateral from Eugene Island Block 57 Platform "D" to Ship Shoal Area Block 11, and appurtenant metering facilities, all in Federal waters Offshore Louisiana. This lateral has not provided service since October 2019.
- Northern Natural received authorization for its Clifton to Palmyra A-line Abandonment Project, including abandoning in-place its A and J-lines in Clay and Washington counties, KS and Gage, Jefferson, Lancaster and Otoe counties, NE; and installing a new 15,900 HP compressor at its Beatrice compressor station in Gage County to maintain existing services.
- Northwest Pipeline received authorization to increase the Maximum Allowable Operating Pressure of its Othello Lateral, in Adams County, WA, in order to match the MAOP of its Othello Loop. This would allow these lines to operate at a consistent MAOP and provide greater operational flexibility. The change would not affect pipeline capacity or deliverability.
- Columbia Gas received authorization for its Holmes and Wayne Wells Abandonment Project, including abandoning four injection/withdrawal wells and associated pipelines and appurtenances at its Holmes and Wayne Storage Fields in Holmes and Wayne counties, OH. The project would not impact customers or operations.
- Columbia Gas received authorization for its Weaver 12611 New Well Project, including constructing and operating one new injection/withdrawal storage well and related pipelines and appurtenances in Richland County, OH. The Project would increase the efficiency, safety, and long term reliability of the storage system, and not change the field's certificated parameters.
- Columbia Gas received authorization for its Lucas 12617 New Well Project, including constructing and operating a new injection/withdrawal storage well and related pipelines and appurtenances at its Lucas Storage Field in Richland County, OH. The project would not change the field's certificated parameters.
- WBI Energy received authorization for its Baker Storage Field Well Abandonment Project, including abandoning six natural gas storage wells and 1.9 miles of associated pipelines at its Baker Storage Field in Fallon County, MT. The project would not change the field's certificated parameters.
- Columbia Gas received authorization for its Medina Wells 10090 and 10116 Abandonment Project, involving abandoning these wells and associated appurtenances at its Medina Storage Field in Medina County, OH. The project will have no impact on existing customers or affect existing storage operations.
- Mountain Valley Pipeline requests an amendment to its certificate authorizing it to complete construction between Mileposts 0 and 77 in Wetzel County, WV, by crossing all remaining wetlands and waterbodies using conventional bores, and a shift in the permanent right-of-way to avoid a wetland at Milepost 0.70.
- Southern Natural requests authorization to replace .81 miles of 14" pipe of its Chattanooga Branch Line in Cleburne County, AL, with 20" line, and to modify its Dalton #2 Compressor. The project would provide 5 MMcf/d of firm transportation to Dalton Utilities.



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Natural Gas Activities in November 2020

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service	0			0	0	0
Certificated	2			60	0	15,900
Proposed	1			0	1	0
Storage						
Placed in Service	0	0	0			0
Certificated	1	0	8			0
Proposed	0	0	0			0
LNG (Import & Export)						
Placed in Service (Export)	0	0	0			0
Certificated (Import/Export)	0	0	0			0
Proposed (Import/Export)	0	0	0			0

Source: Staff Database

Natural Gas Activities through November 30, 2020 January through November 30, 2019

Status	No. of Projects	Storage Capacity (BCF)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service through November 30, 2019	10 10			1,694.7 4,850	134.3 17	71,931 351,270
Certificated through November 30, 2019	41 30			9,340.6 16,708	972.9 591	719,299 724,043
Storage						
Placed in Service through November 30, 2019	0 0	0.0 0	0.0 0			0 0
Certificated through November 30, 2019	3 3	81.0 1	2,844.0 429			11,150 10,000
LNG (Import & Export)						
Placed in Service (Export) through November 30, 2019	7 7	6.8 24	2,314.0 3,622			0 0
Certificated (Import/Export) through November 30, 2019	3 11	20.4 84	3,083.0 20,209			0 44,000

Source: Staff Database



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Hydropower Highlights (nonfederal)

- Northwestern Corporation filed an application to increase the capacity of its Missouri-Madison Project No. 2188 from 312.140 to 327.340 MW. The project is located on the Missouri and Madison Rivers in Cascade, Gallatin, Lewis and Clark, and Madison Counties, MT.

Hydropower Project Activities in November 2020

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	1	15.200	0	0	0	0	1	15.200
Conduit Exemption	0	0	0	0	0	0	0	0
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 November 30, 2020)

Status	Conventional		Pumped Storage		Hydrokinetic		Total No. of Projects	Total Capacity (MW)
	No.	Capacity (MW)	No.	Capacity (MW)	No.	Capacity (MW)		
Filed								
License	1	0.140	1	1,200.000	0	0	2	1,200.140
10-MW Exemption	1	4.500	0	0	0	0	1	4.500
Capacity Amendment	6	34.785	0	0	0	0	6	34.785
Conduit Exemption	0	0	0	0	0	0	0	0
Issued								
License	0	0	0	0	0	0	0	0
10-MW Exemption	2	0.422	0	0	0	0	2	0.422
Capacity Amendment	7	17.531	0	0	0	0	7	17.531
Conduit Exemption	0	0	0	0	0	0	0	0
Placed in Service								
License	1	24.000	0	0	0	0	1	24.000
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

Source: Staff Database



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Electric Generation Highlights

- Soldier Creek Wind LLC's 300.0 MW Soldier Creek Wind Energy Center in Nemaha County, KS is online. The power generated is sold to Kansas State University and Washburn University under long-term contract.
- Sugar Creek Wind One LLC's 202.0 MW Sugar Creek Wind One Project in Logan County, IL is online.
- Wheatridge Wind II LLC's 200.0 MW wind powered Wheatridge Renewable Energy Facility in Morrow County, OR is online.
- Skookumchuck Wind Energy Project LLC's 91.8 MW Skookumchuck Wind Farm in Thurston County, WA is online.
- TransAlta USA Inc's 88.2 MW Skookumchuck Wind Farm in Thurston County, WA is online.
- NextEra Energy Inc's 150.0 MW Two Creeks Solar Farm in Manitowoc County, WI is online. The power generated is sold to Madison Gas & Electric and Wisconsin Public Service Corp under long-term contract.
- BayWa RE Solar Projects LLC's 133.6 MW Fern Solar Project in Edgecombe County, NC is online. The power generated is sold to Starbucks Corp and Corporate Renewable Energy Aggregation Group under long-term contract.
- Milford Solar I LLC's 128.0 MW Milford Solar I Project in Beaver County, UT is online.
- Wagyu Solar LLC's 121.9 MW Wagyu Solar Project in Brazoria County, TX is online. The power generated is sold to Microsoft Corp under long-term contract.
- Pleinmont Solar 1 LLC's 75.0 MW Highlander Solar Project in Spotsylvania, VA is online. The power generated is sold to Microsoft Corp, Apple Inc and University of Richmond under long-term contract.
- Richmond 4 Solar Array LLC's 7.9 MW Richmond Solar Park 4 in Wayne County, IN is online.

New Generation In-Service (New Build and Expansion)

Primary Fuel Type	November 2020		January – November 2020 Cumulative		January – November 2019 Cumulative	
	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)
Coal	0	0	5	20	3	62
Natural Gas	0	0	35	6,039	110	8,269
Nuclear	0	0	0	0	1	155
Oil	0	0	3	5	26	89
Water	0	0	14	194	29	162
Wind	5	882	69	8,042	39	4,920
Biomass	0	0	3	13	18	69
Geothermal Steam	0	0	0	0	2	36
Solar	10	626	327	6,485	501	4,361
Waste Heat	0	0	0	0	1	58
Other *	0	0	29	5	51	0
Total	15	1,508	485	20,803	781	18,181

Sources: Data derived from Velocity Suite, ABB Inc. and The C Three Group LLC. 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.



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Total Available Installed Generating Capacity

	Installed Capacity (GW)	% of Total Capacity
Coal	242.02	19.97%
Natural Gas	538.25	44.41%
Nuclear	104.32	8.61%
Oil	40.12	3.31%
Water	100.99	8.33%
Wind	114.11	9.42%
Biomass	15.64	1.29%
Geothermal Steam	3.90	0.32%
Solar	50.47	4.16%
Waste Heat	1.29	0.11%
Other	0.78	0.06%
Total	1,211.87	100.00%

Sources: Data derived from Velocity Suite, ABB Inc. and The C Three Group LLC. The data may be subject to update.

Generation Capacity Additions and Retirements (December 2020 – November 2023) From ABB Velocity Suite's Generating Unit Capacity Dataset

Primary Fuel Type	All Additions		High Probability Additions		Retirements	
	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)
Coal	1	77	0	0	68	22,621
Natural Gas	226	54,777	100	27,040	77	5,551
Nuclear	4	4,100	2	2,200	6	6,530
Oil	16	683	7	6	46	5,061
Water	219	12,150	95	1,062	14	44
Wind	435	86,488	156	27,675	8	53
Biomass	42	252	22	189	7	84
Geothermal Steam	14	512	4	213	10	35
Solar	3,041	128,001	766	32,784	0	0
Waste Heat	3	49	2	29	0	0
Other *	347	482	87	15	2	2
Total	4,348	287,571	1,241	91,213	238	39,981

Sources: Data derived from Velocity Suite, ABB Inc. and The C Three Group LLC. 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.

** Under Constructions includes units that have started site preparation or construction. It also includes units that are in the testing phase.

Electric Transmission Highlights

- PacifiCorp has completed the 191.4 mile, 500 kV Aeolus - Bridger/Anticline Transmission Line in WY. It is part of the interstate Energy Gateway West project.
- Eversource has completed the 4.0 mile, 115 kV Greenwich – Cos Cob Underground Transmission Line in CT.

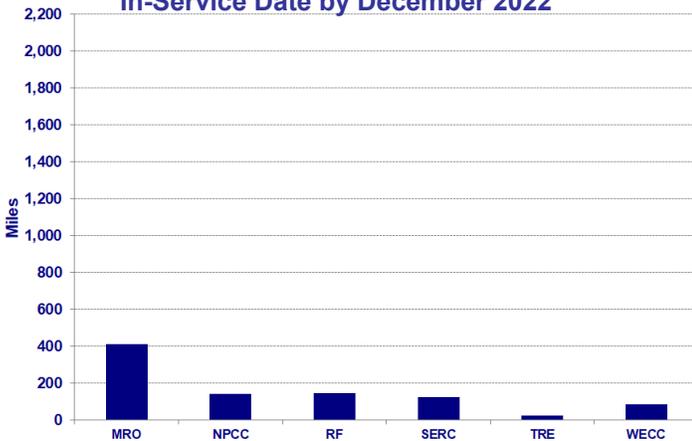


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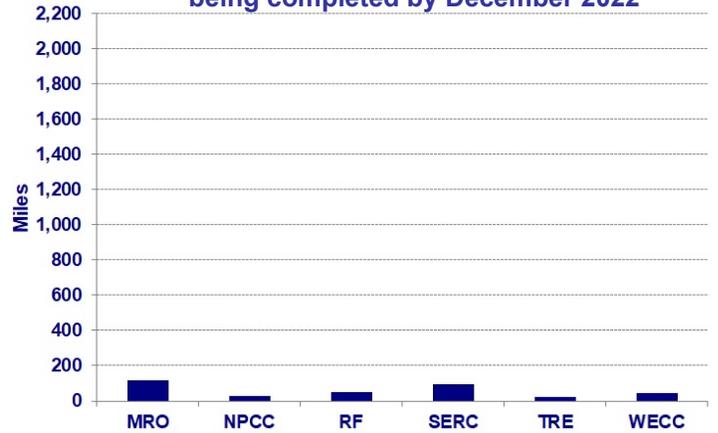
Voltage (kV)	Transmission Projects Completed				Proposed Transmission Projects In-Service by December 2022	
	November 2020	November 2019	January – November 2020 Cumulative	January – December 2019 Cumulative	High Probability of Completion	All
	Line Length (miles)					
≤230	4.0	37.5	69.7	303.4	239.9	373.1
345	0.0	0.0	152.6	604.5	117.0	560.4
500	191.4	0.0	251.4	7.7	0.0	0.0
Total U.S.	195.4	37.5	473.7	915.6	356.9	933.5

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

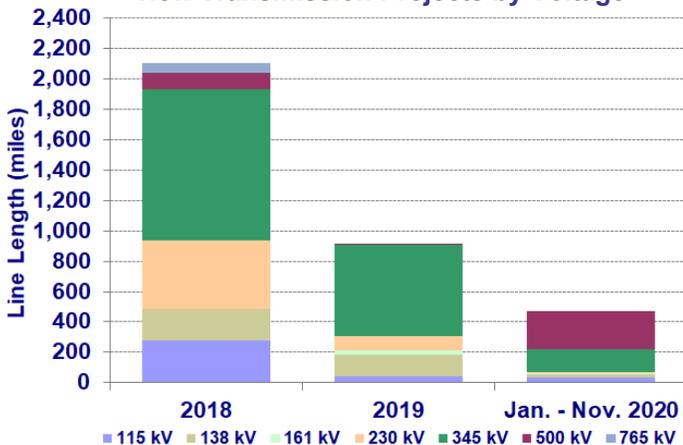
All Transmission Projects with a Proposed In-Service Date by December 2022



Transmission Projects with a High Probability of being completed by December 2022



New Transmission Projects by Voltage



Sources: Data derived from Staff Database and U.S. Electric Transmission Projects ©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.