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9300 LEE HIGHWAY | FAIRFAX VA

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# Benefits and Opportunities of Natural Gas Use, Transportation, and Production



## Oklahoma

### Economic Impacts of Natural Gas

There were 117,700 jobs in the Oklahoma related to natural gas. These jobs represented 7.4 percent of total state jobs. The top three sectors with the greatest number of jobs were support activities for oil and gas, oil and gas extraction, and natural gas distribution. The contribution to the Oklahoma economy in terms of direct, indirect, and induced value added in 2015 was \$16.7 billion, of which \$4.68 billion was related to the end use segment, \$5.78 billion was from the infrastructure segment, and \$6.19 billion was from the production segment.

### Natural Gas Consumers

In 2015, Oklahoma consumed 541 Bcf of natural gas in all sectors. There were a total of 1.04 million customers. The value of natural gas delivered to consumers was \$2.32 billion.

Oklahoma has 941,100 residential customers who consumed 59 Bcf in 2015. Average consumption was 63 Mcf per household. Residential demand was 63 percent for space heating, 27 percent for water heating, 4 percent for cooking, and 6 percent for other uses.

Oklahoma has 96,500 commercial customers who consumed 42 Bcf in 2015. Average consumption per commercial customer was 435 Mcf. Commercial demand was 37 percent for space heating, 21 percent for water heating, 9 percent for cooking, and 33 percent for other uses.

There are 3,059 industrial customers who consumed 185 Bcf in 2015. Average consumption per customer was 60 MMcf in 2015. The top industries for gas consumption were Chemicals (NAICS code 325), Petroleum and Coal Products (324), Non-metallic mineral products (327), Food (311), and Primary Metals (331), representing 92 percent of industrial demand.

Oklahoma has 38 power plants consuming natural gas. In 2015, gas consumed was 255 Bcf, representing 45 percent of power generation in the state. Average consumption per customer was 6,702 MMcf.

### Natural Gas Infrastructure

In 2015, Oklahoma had 93,610 producing oil wells and 49,852 producing gas wells. There were 48,138 miles of gas gathering lines and 75 gas processing plants in the state with a capacity of 6,568 MMcf/d. In addition, there were 11,843 miles of gas pipelines, 6,376 miles of crude oil pipelines, 4,955 miles of NGL pipelines, 2,166 miles of product pipelines, and 336 miles of CO<sub>2</sub> pipelines. There were 26,352 miles of gas distribution mains and 7,645 miles of service lines. There were 13 natural gas storage sites in the state with a working gas capacity of 193 Bcf.

### Natural Gas and Oil Production

In 2015, Oklahoma produced 2.34 Tcf of dry natural gas, 121 million barrels of gas plant liquids, 35 million barrels of lease condensate, and 123 million barrels of crude. Oklahoma has been a major focus of industry drilling since the early years of the horizontal drilling boom. The state has good existing upstream and midstream infrastructure. Significant plays include the Woodford gas play in the Arkoma Basin in southeast Oklahoma and the STACK, SCOOP and Granite Wash plays of the Anadarko Basin of western Oklahoma. The economics of liquids-

directed activity in the STACK and SCOOP plays are currently driving most of the drilling activity. Productive formations in this area include the Woodford and Mississippian carbonates. In April of 2017, approximately 125 rigs were active in the state, with most of the activity in western counties.

## Exhibit 7-38: Oklahoma State Factsheet

Oklahoma			Employment (# of Workers)			Labor Income (\$ million)			Value Added (\$ million)		
Summary	Segment	Category	Direct & Indirect	Induced	Total	Direct & Indirect	Induced	Total	Direct & Indirect	Induced	Total
	End-Use	Power Generation	5,116	5,699	10,815	365	267	632	1,017	501	1,518
		Industrial	4,688	6,675	11,363	341	332	673	1,507	592	2,099
		Residential/ Commercial	2,638	2,710	5,348	187	146	333	670	245	915
		Export	1,070	684	1,754	73	33	106	80	61	141
		Transportation	23	12	36	1	1	1	4	1	5
	Infrastructure	Processing	3,598	2,338	5,936	284	116	401	904	214	1,118
		Pipelines	8,415	5,288	13,703	679	276	954	1,918	485	2,402
		Distribution	10,703	6,054	16,757	1,031	369	1,400	1,649	548	2,197
		Wholesalers, Marketers, Other	278	163	440	25	9	35	50	15	64
	Production	Natural Gas/ NGLs	36,813	14,722	51,535	3,491	757	4,249	4,880	1,312	6,192
	All Segments	Grand Total	73,342	44,345	117,687	6,477	2,307	8,784	12,678	3,973	16,652

Jobs by Top Industries	Rank	NAICS	Industry Sector	Direct and Indirect Jobs
	1	213112	Support Activities for Oil & Gas Operations	11,082
	2	211111	Crude Petroleum & Natural Gas Extraction	10,161
	3	221210	Natural Gas Distribution	4,572
	4	237120	Oil & Gas Pipeline Construction	3,741
	5	33241	Power Boiler & Heat Exchanger Manufacturing	3,082
	6	213111	Drilling Oil & Gas Wells	2,412
	7	4841	Freight Truck	1,475
	8	486210	Pipeline Transportation of Natural Gas	1,345
	9	811310	Industrial Equip. & Machinery Repair & Maint.	1,223
	10	325	Chemical Manufacturing	890

Customers	Sector	Customer Count	Consumption Volume (MMcf/ year)	Value of Natural Gas Delivered to Customers (\$million)
	Residential Sector	941,137	59,387	\$606
	Commercial Sector	96,471	41,977	\$305
	Industrial Sector	3,059	184,627	\$672
	Transportation	124	525	\$5
	Power Sector	38	254,706	\$734
	All Sectors	1,040,829	541,224	\$2,322

Infrastructure	Gas Distribution Main (miles)	Gas Distribution Services (miles)	Gas Gathering (miles)	Gas Pipelines (miles)	Crude Oil Pipelines (miles)	NGL Pipelines (miles)	Oil Product Pipelines (miles)	CO2 Pipelines (miles)
	26,352	7,645	48,138	11,843	6,376	4,955	2,166	336

Production	Product	Annual Production
	Dry Natural Gas (mmcf)	2,336,234
	Gas Plant Liquids (barrels)	120,949,000
	Lease Condensate (barrels)	35,000,000
	Crude Oil (barrels)	122,770,000
	Annual Value Counted Toward Natural Gas Value Chain (\$million)	\$9,865
	Annual Value of All Produced Oil, Gas, NGLs (\$million)	\$15,385

Wells	Well Type	Operating Wells	New Wells Drilled
	Oil Wells	93,610	1,713
	Gas Wells	49,852	318
	All Wells	143,462	2,032

Annual 2015 Data for Oklahoma  
Natural Gas Value Chain Basis