

PREPARED FOR **AMERICAN PETROLEUM INSTITUTE**

PREPARED BY **ICF**

9300 LEE HIGHWAY | FAIRFAX VA

JUNE 2017

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



Iowa

Economic Impacts of Natural Gas

There were 47,056 jobs in Iowa related to natural gas. These jobs represented 3.1 percent of total state jobs. The top three sectors with the greatest number of jobs were oil and gas pipeline construction, turbine and turbine generator manufacturing, and chemical manufacturing. The contribution to the Iowa economy in terms of direct, indirect, and induced value added in 2015 was \$5.60 billion, of which \$3.21 billion was related to the end use segment, \$1.91 billion was from the infrastructure segment, and \$0.48 billion was from the production segment.

Natural Gas Consumers

In 2015, Iowa consumed 308 Bcf of natural gas in all sectors. There were a total of 1.01 million customers. The value of natural gas delivered to consumers was \$1.57 billion.

Iowa has 908,000 residential customers who consumed 63 Bcf in 2015. Average consumption was 69 Mcf per household. Residential demand was 70 percent for space heating, 23 percent for water heating, 3 percent for cooking, and 4 percent for other uses.

Iowa has 100,000 commercial customers who consumed 49 Bcf in 2015. Average consumption per commercial customer was 494 Mcf. Commercial demand was 73 percent for space heating, 14 percent for water heating, 4 percent for cooking, and 9 percent for other uses.

There are 1,570 industrial customers in Iowa who consumed 179 Bcf in 2015. Average consumption per commercial customer was 114 MMcf. The top industries for gas consumption were Chemicals (NAICS Code 325), Food (311), Primary Metals (331), Agriculture (11), and Machinery (333), representing 92 percent of industrial demand.

Iowa has 78 power plants consuming natural gas. In 2015, gas consumed was 18 Bcf, representing 4 percent of power generation in the state. Average consumption per customer was 224 MMcf.

Natural Gas Infrastructure

Iowa has no oil and gas wells or production and all natural gas consumed comes from other states.

In 2015, Iowa had 8,340 miles of gas pipelines, 422 miles of crude oil pipelines, 2,200 miles of NGL pipelines, and 1,813 miles of product pipelines. There were 18,150 miles of gas distribution mains and 14,900 miles of service lines. There were 4 natural gas storage sites in the state with a working gas capacity of 90 Bcf.

Exhibit 7-17: Iowa State Factsheet

Iowa			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	2,609	3,890	6,499	158	169	328	274	342	616
		Industrial	4,311	7,519	11,830	308	361	669	1,047	664	1,711
		Residential/ Commercial	2,410	2,876	5,287	158	147	305	508	260	768
		Export	828	684	1,512	52	32	84	57	61	118
		Transportation	1	1	2	0	0	0	0	0	0
	Infrastructure	Processing	794	1,085	1,879	48	50	98	55	99	154
		Pipelines	4,389	3,701	8,090	352	192	544	614	339	953
		Distribution	3,165	3,179	6,344	235	163	399	490	288	778
		Wholesalers, Marketers, Other	103	96	199	8	5	13	15	9	24
	Production	Natural Gas/ NGLs	2,119	3,295	5,414	165	161	326	181	294	475
	All Segments	Grand Total	20,730	26,326	47,056	1,484	1,281	2,765	3,240	2,356	5,595

Jobs by Top Industries	Rank	NAICS	Industry Sector	Direct and Indirect Jobs
	1	237120	Oil & Gas Pipeline Construction	1,725
	2	333611	Turbine and Turbine Generator Manufacturing	1,438
	3	325	Chemical Manufacturing	1,317
	4	811310	Industrial Equip. & Machinery Repair & Maint.	794
	5	221210	Natural Gas Distribution	519
	6	236210	Industrial Construction	366
	7	45431NGL	NGL Retail	311
	8	486210	Pipeline Transportation of Natural Gas	242
	9	33241	Power Boiler & Heat Exchanger Manufacturing	194
	10	811412	Household Appliance Repair & Maintenance	181

Customers	Sector	Customer Count	Consumption Volume (MMcf/ year)	Value of Natural Gas Delivered to Customers (\$million)
	Residential Sector	908,058	62,739	\$532
	Commercial Sector	99,662	49,269	\$323
	Industrial Sector	1,572	178,772	\$657
	Transportation	9	26	\$0
	Power Sector	78	17,518	\$54
	All Sectors	1,009,379	308,324	\$1,565

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)
	18,152	14,905	0	8,340	422	2,200	1,813	0

Production	Product	Annual Production
	Dry Natural Gas (mmcf)	0
	Gas Plant Liquids (barrels)	0
	Lease Condensate (barrels)	0
	Crude Oil (barrels)	0
	Annual Value Counted Toward Natural Gas Value Chain (\$million)	\$0
	Annual Value of All Produced Oil, Gas, NGLs (\$million)	\$0

Wells	Well Type	Operating Wells	New Wells Drilled
	Oil Wells	0	0
	Gas Wells	0	0
	All Wells	0	0

Annual 2015 Data for Iowa
Natural Gas Value Chain Basis