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



Washington State

Economic Impacts of Natural Gas

There were 64,400 jobs in Washington related to natural gas. These jobs represented 2.1 percent of total state jobs. The top three sectors with the greatest number of jobs were natural gas distribution, chemical manufacturing, and oil and gas pipeline construction. The contribution to the Washington economy in terms of direct, indirect, and induced value added in 2015 was \$7.52 billion, of which \$4.08 billion was related to the end use segment, \$2.55 billion was from the infrastructure segment, and \$807 million was from the production segment.

Natural Gas Consumers

In 2015, Washington State consumed 296 Bcf of natural gas in all sectors. There were a total of 1.24 million customers. The value of natural gas delivered to consumers was \$1.93 billion.

Washington has 1.13 million residential customers who consumed 72 Bcf in 2015. Average consumption was 63 Mcf per household. Residential demand was 67 percent for space heating, 26 percent for water heating, 2 percent for cooking, and 5 percent for other uses.

Washington has 102,000 commercial customers who consumed 50 Bcf. Average consumption per commercial customer was 489 Mcf. Commercial demand was 34 percent for space heating, 23 percent for water heating, 8 percent for cooking, and 35 percent for other uses.

There are 3,400 industrial customers in Washington who consumed 77 Bcf in 2015. Average consumption per customer was 23 MMcf. The top industries for gas consumption were Paper (NAICS Code 322), Petroleum and Coal Products (324), Food (311), Chemicals (325), and Transportation Equipment (336), representing 76 percent of industrial demand.

Washington has 23 power plants consuming natural gas. Gas consumed was 97 Bcf, representing 12 percent of power generation in the state. Average consumption per customer was 4,230 MMcf.

Natural Gas Infrastructure

Washington has no oil or gas production or producing wells. There were no gas gathering lines and no gas processing plants in the state. The state has 1,962 miles of gas pipelines, 69 miles of crude oil pipelines, 5 miles of NGL pipelines, 732 miles of product pipelines, and no CO2 pipelines. There were 3,210 miles of gas distribution mains and 2,436 miles of service lines. There was 1 natural gas storage site in the state with a working gas capacity of 25 Bcf.

Exhibit 7-49: Washington State Factsheet

Washington			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	1,895	4,979	6,874	140	245	385	345	438	782
		Industrial	3,446	10,505	13,951	226	499	725	642	927	1,569
		Residential/ Commercial	4,066	5,351	9,417	262	272	533	1,071	483	1,555
		Export	836	1,088	1,924	60	55	115	66	97	163
		Transportation	24	26	50	1	1	2	4	2	6
	Infrastructure	Processing	1,369	2,265	3,635	111	117	228	280	206	486
		Pipelines	2,988	4,751	7,738	227	243	470	268	436	703
		Distribution	4,730	5,665	10,395	372	296	668	816	513	1,329
		Wholesalers, Marketers, Other	115	150	265	9	8	17	17	14	31
	Production	Natural Gas/ NGLs	3,616	6,543	10,159	285	322	607	314	583	897
	All Segments	Grand Total	23,086	41,323	64,408	1,692	2,058	3,750	3,822	3,699	7,521

Jobs by Top Industries	Rank	NAICS	Industry Sector	Direct and Indirect Jobs
	1	221210	Natural Gas Distribution	1,032
	2	325	Chemical Manufacturing	778
	3	237120	Oil & Gas Pipeline Construction	683
	4	811310	Industrial Equip. & Machinery Repair & Maint.	551
	5	45431NGL	NGL Retail	416
	6	236210	Industrial Construction	261
	7	4841	Freight Truck	258
	8	335228	Other Major Household Appliance Manufacturing	250
	9	221112	Gas-fired Electric Power Generation	230
	10	333414	Heating Boilers & Fireplace Manufacturing	223

Customers	Sector	Customer Count	Consumption Volume (MMcf/ year)	Value of Natural Gas Delivered to Customers (\$million)
	Residential Sector	1,133,629	71,952	\$846
	Commercial Sector	102,266	49,967	\$467
	Industrial Sector	3,385	76,600	\$302
	Transportation	29	538	\$6
	Power Sector	23	97,300	\$305
	All Sectors	1,239,332	296,358	\$1,925

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)
	22,704	22,167	0	1,962	69	5	732	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 Washington
Natural Gas Value Chain Basis