

PREPARED FOR **AMERICAN PETROLEUM INSTITUTE**

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9300 LEE HIGHWAY | FAIRFAX VA

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



California

Economic Impacts of Natural Gas

There were 378,799 jobs in California related to natural gas. These jobs represented 2.3 percent of total state jobs. The top three sectors with the greatest number of jobs were natural gas distribution, oil and gas pipeline construction, and chemical manufacturing. The contribution to the California economy in terms of direct, indirect, and induced value added in 2015 was \$45.6 billion, of which \$23.5 billion was related to the end use segment, \$15.4 billion was from the infrastructure segment, and \$6.7 billion was from the production segment.

Natural Gas Consumers

In 2015, California consumed 2.25 Tcf of natural gas in all sectors. There were a total of 11.5 million customers. The value of natural gas delivered to consumers was \$12.0 billion.

California has 11.0 million residential customers who consumed 401 Bcf in 2015. Average consumption was 37 Mcf per household. Residential demand was 33 percent for space heating, 43 percent for water heating, 9 percent for cooking, 3 percent for clothes drying, 1 percent for space cooling, and 11 percent for other uses.

California has 447,000 commercial customers who consumed 236 Bcf in 2015. Average consumption per commercial customer was 528 Mcf. Commercial demand was 32 percent for space heating, 21 percent for water heating, 8 percent for cooking, 7 percent for cogeneration, and 32 percent for other uses.

There are 37,000 industrial customers in California who consumed 777 Bcf in 2015. Average consumption per industrial customer was 21 MMcf. The top industries for gas consumption were Petroleum and Coal Products (NAICS Code 324), Chemicals (325), Food (311), Non-metallic Mineral Products ((327), and Primary Metals (331), representing 78 percent of industrial demand.

California has 357 power plants consuming natural gas. In 2015, gas consumed was 817 Bcf, representing 59 percent of power generation in the state. Average consumption per customer was 2,288 MMcf.

Natural Gas Infrastructure

In 2015, California had 48,856 producing oil wells and 4,209 producing gas wells. There were 3,337 miles of gas gathering lines and 23 gas processing plants in the state with a capacity of 898 MMcf/d. In addition, there were 12,458 miles of gas pipelines, 4,391 miles of crude oil pipelines, 63 miles of NGL pipelines, 3,338 miles of product pipelines, and no CO2 pipelines. There were 105,353 miles of gas distribution mains and 94,746 miles of service lines. There were 14 natural gas storage sites in the state with a working gas capacity of 375 Bcf.

Natural Gas and Oil Production

In 2015, California produced 0.22 Tcf of dry natural gas, 9.09 million barrels of plant liquids, no lease condensate, and 213 million barrels of crude.

Exhibit 7-6: California State Factsheet

California			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	15,018	30,356	45,374	1,251	1,565	2,816	4,686	2,669	7,354
		Industrial	21,364	57,396	78,760	1,443	2,744	4,187	4,538	5,067	9,605
		Residential/ Commercial	15,900	24,389	40,289	1,122	1,290	2,412	3,198	2,203	5,402
		Export	5,012	5,894	10,906	391	305	696	430	525	955
		Transportation	762	702	1,464	36	35	58	123	68	191
	Infrastructure	Processing	6,769	11,212	17,981	619	619	1,238	1,599	1,021	2,619
		Pipelines	21,455	27,507	48,962	1,593	1,389	2,981	2,271	2,522	4,794
		Distribution	31,534	31,951	63,485	2,287	1,606	3,905	4,913	2,889	7,802
		Wholesalers, Marketers, Other	781	855	1,636	57	43	100	110	78	187
	Production	Natural Gas/ NGLs	31,568	38,374	69,942	2,863	1,932	4,795	3,239	3,420	6,659
	All Segments	Grand Total	150,163	228,636	378,799	11,660	11,528	23,189	25,106	20,462	45,568

Jobs by Top Industries	Rank	NAICS	Industry Sector	Direct and Indirect Jobs
	1	221210	Natural Gas Distribution	9,053
	2	237120	Oil & Gas Pipeline Construction	7,237
	3	325	Chemical Manufacturing	5,277
	4	811310	Industrial Equip. & Machinery Repair & Maint.	4,306
	5	213112	Support Activities for Oil & Gas Operations	3,917
	6	333611	Turbine and Turbine Generator Manufacturing	3,660
	7	211111	Crude Petroleum & Natural Gas Extraction	2,947
	8	236210	Industrial Construction	2,203
	9	45431NGL	NGL Retail	2,101
	10	221112	Gas-fired Electric Power Generation	1,966

Customers	Sector	Customer Count	Consumption Volume (MMcf/ year)	Value of Natural Gas Delivered to Customers (\$million)
	Residential Sector	10,969,597	401,172	\$4,504
	Commercial Sector	446,510	235,787	\$1,728
	Industrial Sector	36,854	777,104	\$2,892
	Transportation	365	17,111	\$150
	Power Sector	357	816,787	\$2,687
	All Sectors	11,453,683	2,247,961	\$11,962

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)
	105,353	94,746	3,337	12,458	4,391	63	3,338	0

Production	Product	Annual Production
	Dry Natural Gas (mmcf)	218,590
	Gas Plant Liquids (barrels)	9,086,000
	Lease Condensate (barrels)	0
	Crude Oil (barrels)	212,729,000
	Annual Value Counted Toward Natural Gas Value Chain (\$million)	\$907
	Annual Value of All Produced Oil, Gas, NGLs (\$million)	\$10,614

Wells	Well Type	Operating Wells	New Wells Drilled
	Oil Wells	48,856	1,641
	Gas Wells	4,209	1
	All Wells	53,065	1,642

Annual 2015 Data for California
Natural Gas Value Chain Basis