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



Massachusetts

Economic Impacts of Natural Gas

There were 63,500 jobs in Massachusetts related to natural gas. These jobs represented 1.8 percent of total state jobs. The top three sectors with the greatest number of jobs were natural gas distribution, industrial equipment and machinery repair and maintenance, and NGL retail. The contribution to the Massachusetts economy in terms of direct, indirect, and induced value added in 2015 was \$7.98 billion, of which \$3.02 billion was related to the end use segment, \$2.79 billion was from the infrastructure segment, and \$0.81 billion was from the production segment.

Natural Gas Consumers

In 2015, Massachusetts consumed 434 Bcf of natural gas in all sectors. There were a total of 1.63 million customers. The value of natural gas delivered to consumers was \$3.4 billion.

Massachusetts has 1.48 million residential customers who consumed 127 Bcf in 2015. Average consumption was 86 Mcf per household. Residential demand was 66 percent for space heating, 23 percent for water heating, 4 percent for cooking, and 7 percent for other uses.

Massachusetts has 141,000 commercial customers who consumed 105 Bcf in 2015. Average consumption per commercial customer was 750 Mcf. Commercial demand was 53 percent for space heating, 7 percent for water heating, 3 percent for cooking, 4 percent for cogeneration, and 33 percent for other uses.

There are 11,000 industrial customers in Massachusetts who consumed 45 Bcf in 2015. Average consumption per industrial customer was 4 MMcf. The top industries for gas consumption were Paper (NAICS Code 322), Chemicals (325), Food (311), Fabricated Metal Products (332), and Non-metallic Mineral Products (327), representing 72 percent of industrial demand.

Massachusetts has 48 power plants consuming natural gas. Gas consumed was 156 Bcf, representing 65 percent of power generation in the state. Average consumption per customer was 3,260 MMcf.

Natural Gas Infrastructure

Massachusetts has no oil and gas wells or production and all natural gas consumed comes from other states. There are 1,133 miles of gas pipelines, no crude oil pipelines, no NGL pipelines, 93 miles of product pipelines, and no CO2 pipelines. There were 21,600 miles of gas distribution mains and 15,100 miles of service lines.

Exhibit 7-23: Massachusetts State Factsheet

Massachusetts			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	2,748	5,580	8,328	213	279	492	878	491	1,369
		Industrial	3,025	9,711	12,736	209	472	681	641	857	1,499
		Residential/ Commercial	3,708	5,001	8,709	257	263	520	900	452	1,352
		Export	828	1,052	1,880	61	53	114	67	94	160
		Transportation	35	31	66	2	2	3	6	2	8
	Infrastructure	Processing	848	1,748	2,597	61	87	148	67	159	227
		Pipelines	2,334	4,294	6,628	174	219	393	201	394	595
		Distribution	6,723	6,359	13,082	596	351	948	1,351	576	1,928
		Wholesalers, Marketers, Other	142	157	299	12	8	21	25	14	40
	Production	Natural Gas/ NGLs	3,053	6,118	9,171	238	302	540	262	545	807
	All Segments	Grand Total	23,443	40,052	63,495	1,822	2,036	3,858	4,398	3,585	7,983

Jobs by Top Industries	Rank	NAICS	Industry Sector	Direct and Indirect Jobs
	1	221210	Natural Gas Distribution	2,453
	2	811310	Industrial Equip. & Machinery Repair & Maint.	737
	3	45431NGL	NGL Retail	536
	4	325	Chemical Manufacturing	469
	5	237120	Oil & Gas Pipeline Construction	437
	6	221112	Gas-fired Electric Power Generation	373
	7	811412	Household Appliance Repair & Maintenance	366
	8	33241	Power Boiler & Heat Exchanger Manufacturing	355
	9	333611	Turbine and Turbine Generator Manufacturing	314
	10	333994	Industrial Process Furnace & Oven Manufacturing	313

Customers	Sector	Customer Count	Consumption Volume (MMcf/ year)	Value of Natural Gas Delivered to Customers (\$million)
	Residential Sector	1,478,072	126,662	\$1,640
	Commercial Sector	140,533	105,397	\$898
	Industrial Sector	11,266	44,554	\$227
	Transportation	17	802	\$9
	Power Sector	48	156,492	\$659
	All Sectors	1,629,936	433,907	\$3,433

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)
	21,576	15,138	0	1,133	0	0	93	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 Massachusetts
Natural Gas Value Chain Basis