



Energy

Industry Data

Labor Market Information for Colorado



Powering a brighter tomorrow

With rising gas and electricity prices, energy has raced to the forefront of national attention. This expanding industry is creating more jobs for Colorado. Colorado plays a key role in providing the nation with fuel, ranking 7th in the U.S. in the production of natural gas, 10th in crude oil, and 12th in coal.

Several of the nation's 100 largest natural gas fields are in Colorado and make up 5% of U.S. annual production. The state is also responsible for more than one-quarter of all coal bed methane in the U.S., which is used for electrical power generation. Colorado's oil shale deposits hold an estimated 1 trillion barrels of oil - the largest known deposits in the world. However, oil production from shale remains speculative due to high extraction costs.

When Governor Ritter took office, one of his first priorities was to sign into action a bill doubling the amount of power Utilities companies are required to produce from renewable sources to at least 20 percent by 2020.

The state is poised to become a major player on the renewable energy scene, thanks to efforts by the Colorado Renewable Energy

Collaboratory. The National Renewable Energy Laboratory (NREL), University of Colorado at Boulder, Colorado School of Mines and Colorado State University created the collaboratory in 2007 to research and develop new, cleaner energy technologies.

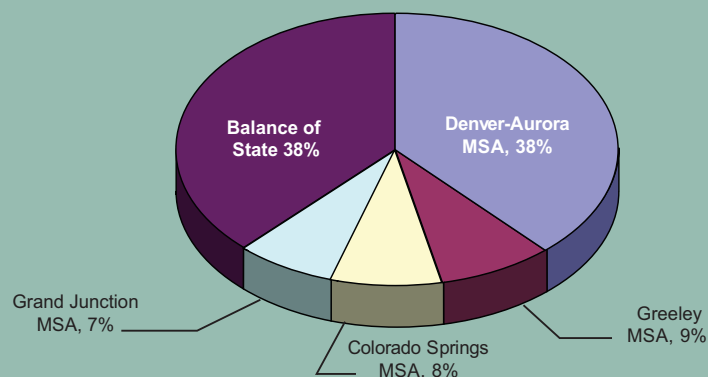
Currently, hydroelectric and wind power facilities make up most of our electricity generation from renewable sources. The major rivers flowing through the Rocky Mountains provide key hydroelectric power resources. In March 2008, Vestas Wind Systems opened a wind blade manufacturing plant in Windsor, and in August 2008 the company announced plans to add two more plants in Colorado, bringing its state workforce up to 2,450 by 2010. Additionally, AVA Solar expects to employ as many as 500 workers to manufacture solar panels in Ft. Collins.

Energy includes three main divisions: Fossil, Renewable and Research. Fossil Energy encompasses non-renewable resources that are found within the earth's crust. Companies extract these naturally-occurring materials, such as coal, petroleum and natural gas, to produce energy. Renewable Energy uses natural, replenishable resources (sun, wind and water) to produce energy. Environmental concerns and high oil prices are driving demand for renewable energy production. Energy Research attempts to discover and develop more efficient energy sources and means of production. In addition, the best means to mitigate environmental impacts of energy development are being studied.

Our unique home-grown blend of wind, solar and agricultural energy supplies offers Colorado an unprecedented opportunity to create jobs, protect the environment and decrease our dependence on foreign oil.

- Governor Bill Ritter Jr.

Energy Employment by Region



Source: CDLE, Quarterly Census of Employment and Wages, 2007

For total employment, 29% of employment can be found outside of the Denver-Aurora, Greeley, Colorado Springs and Grand Junction Metropolitan Statistical Areas. Thirty-eight percent of energy workers collect paychecks outside of these areas, largely due to vibrant oil and gas growth on the western slope.



Energy

Renewable Energy *Primary*

NAICS	NAICS Description
221111	Hydroelectric Power Generation
221119	Other Electric Power Generation
325193	Ethyl Alcohol Manufacturing
221330	Steam & Air-Conditioning Supply

Renewable Energy *Secondary*

NAICS	NAICS Description
237110	Water & Sewer Line & Related Structures Construction
237130	Power & Communication Line & Related Structures Construction
237990	Other Heavy & Civil Engineering Construction
333120	Construction Machinery Manufacturing
333611	Turbine & Turbine Generator Set Units Manufacturing
334413	Semiconductor & Related Device Manufacturing
335312	Motor & Generator Manufacturing
335999	All Other Miscellaneous Electrical Equipment & Component Manufacturing
423720	Hydronics Merchant Wholesalers

Energy Research *Secondary*

NAICS	NAICS Description
541690	Other Scientific & Technical Consulting Services
926110	Administration of General Economic Programs
926130	Regulation & Administration of Communications, Electric, Gas, & Other Utilities
541712	Research and Development in the Physical, Engineering and Life Sciences (except Biotechnology)

Fossil Energy *Primary*

NAICS	NAICS Description
211111	Crude Petroleum & Natural Gas Extraction
211112	Natural Gas Liquid Extraction
212111	Bituminous Coal & Lignite Surface Mining
212112	Bituminous Coal Underground Mining
212291	Uranium-Radium-Vanadium Ore Mining

213111	Drilling Oil & Gas Wells
213112	Support Activities for Oil & Gas Operations
213113	Support Activities for Coal Mining
221112	Fossil Fuel Electric Power Generation
221113	Nuclear Electric Power Generation
221121	Electric Bulk Power Transmission & Control
221122	Electric Power Distribution
221210	Natural Gas Distribution
237120	Oil & Gas Pipeline & Related Structures Construction
324110	Petroleum Refineries
325110	Petrochemical Manufacturing
333131	Mining Machinery & Equipment Manufacturing
333132	Oil & Gas Field Machinery & Equipment Manufacturing
486110	Pipeline Transportation of Crude Oil
486210	Pipeline Transportation of Natural Gas
486910	Pipeline Transportation of Refined Petroleum Products

Fossil Energy *Secondary*

NAICS	NAICS Description
236210	Industrial Building Construction
237130	Power & Communication Line & Related Structures Construction
333298	All Other Industrial Machinery Manufacturing
423520	Coal & Other Mineral & Ore Merchant Wholesalers
423830	Industrial Machinery & Equipment Merchant Wholesalers
424710	Petroleum Bulk Stations & Terminals
424720	Petroleum & Petroleum Products Merchant Wholesalers (except Bulk Stations & Terminals)
484220	Specialized Freight (except Used Goods) Trucking, Local
523910	Miscellaneous Intermediation
523999	Miscellaneous Financial Investment Activities
532412	Construction, Mining, & Forestry Machinery & Equipment Rental & Leasing
533110	Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)
541330	Engineering Services
541360	Geophysical Surveying & Mapping Services
811310	Commercial & Industrial Machinery & Equipment (except Automotive & Electronic) Repair & Maintenance

In 2007 there were 47,797 energy employees working for 2,676 firms: 43,237 in Fossil Energy, 3,465 in Energy Research and 1,095 in Renewable Energy. Of detailed industries, Support Activities for Oil & Gas Operations employed the most workers.

Because of its importance in the local, as well as global, economy, energy has been targeted as an economic driver of the Colorado economy. Many of the occupations associated with energy are expected to grow at a faster pace than all jobs over the ten-year projected period.

Projected Growth of Occupations Associated with Energy

	2006	2016	Change	Annual Average % Change	Annual Average Wage
Construction Laborers	26,511	36,838	10,327	3.3%	\$28,030
Operating Engineers	10,035	13,424	3,389	3.0%	\$41,740
Roustabouts, Oil & Gas	2,462	4,686	2,224	6.6%	\$29,440
Managers of Construction & Extraction Workers	17,744	24,651	6,907	3.3%	\$58,030
General & Operations Managers	37,869	42,964	5,095	1.3%	\$100,230
Pipelayers	1,735	2,346	611	3.1%	\$36,910
All Occupations	2,482,548	3,046,586	564,038	2.1%	\$43,102

Source: CDLE, Long-Term Occupational Projections 2008 & Occupational Employment Statistics 2007, statewide all industries

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