



Energy Background 2011

Fossil Fuels Energy Background

- Colorado has substantial fossil fuel resources, including several fossil fuel-rich basins, significant coal deposits, and some of the largest natural gas fields in the nation. The majority of drilling activity is concentrated along the Western Slope of the Rocky Mountains and in Weld County, while many fossil fuel companies conduct business operations from the Metro Denver region. Colorado's active wells totaled over 43,170 as of December 2010, with 55 percent of total active wells in Weld and Garfield Counties. *Source: Metro Denver EDC Energy Cluster Study*
- Colorado ranks 11th in the nation for its 2010 concentration of fossil fuels employment with 34,680 employees at approximately 1,970 companies. The 2009 average salary for a fossil fuel worker was \$88,690 (\$84,160 nationwide). In fact, fossil fuel employment grew 20.6 percent in the state from 2005 to 2010; the national growth for the same period was 11.9 percent. *Source: Metro Denver EDC*
- Canadian headquartered Cline Mining Corp. redeveloped the New Elk coal mine in Las Animas County for approximately \$65 million. Production commenced in September 2010 with the goal of mining more than 3 million tons of coal per year by 2013. The company will grow its workforce to 450 employees. *Source: Coal Age*
- The Black Hill Energy commenced construction on a new, \$500 million natural gas power plant in Pueblo County in August 2010. The new power plant will have 400 construction workers employed through January 2012 and then have 20 permanent employees. *Source: Pueblo Chieftain*

Renewable Energy Background

- Colorado is becoming a leader in the renewable energy industry, also known as cleantech.
- Colorado ranks fourth in the nation for its 2010 concentration of cleantech employment with 19,420 employees at approximately 1,600 companies. The 2009 average salary for a renewable energy and energy research worker was \$75,240 (\$70,690 nationwide). In fact, renewable energy employment grew 32.7 percent in the state from 2005 to 2010; the national growth for the same period was 10.0 percent. *Source: Metro Denver EDC*
- Buckley Air Force Base was the first site in the Air Force Space Command to install a major solar project. The base's \$7.3 million project includes more than 5,000 panels installed in May 2010.
- Colorado is quickly becoming the major North American center for wind energy research and manufacturing. Denmark-based Vestas has a blade factory in Windsor (650 employees), a nacelles plant in Brighton and a towers plant in Pueblo (500 employees and the largest towers manufacturing facility in the World). The company expects to open a second blade factory, in Brighton, by the end of 2011. *Source: Vestas*
- SolarTAC is an integrated, world-class test facility where the solar industry will test, validate, and demonstrate near-market and advanced solar technologies. The SolarTAC mission is to increase the efficiency of solar energy products and rapidly deploy them to the commercial market.
 - Founding members of SolarTAC include Xcel Energy, SunEdison and Abengoa Solar.
 - Participating organizations of SolarTAC include the City of Aurora, National Renewable

Energy Laboratory (NREL), Colorado Renewable Energy Collaboratory, Colorado School of Mines, Colorado State University and University of Colorado. SolarTAC is managed and operated by MRIGlobal.

National Renewable Energy Laboratory Background

- The Department of Energy's National Renewable Energy Laboratory (NREL) in Golden, Colorado is the nation's premier research facility for new clean energy systems. One of NREL's priorities is to accelerate market-relevant science and technology innovation for new clean energy systems; another is to rapidly move those discoveries into commercialization at a speed and scale required to meet national needs.
- NREL's impact on Colorado's economy tripled in just three years boosting Colorado's annual economy by \$714 million, according to the CO-LABS Economic Impact Study prepared by the University of Colorado.
- NREL's full-time work force grew from 917 in 2007 to 2,300 today. That many people working at a lab induces many more jobs to ripple through the state economy. In total, NREL's presence means more than 5,500 jobs in Colorado.
- NREL has helped wind and solar energy, biomass and alternative fuels gain traction in the marketplace, helping to vault Colorado into sixth place nationally in the total value of clean-energy jobs. Between 1998 and 2007, clean-energy jobs in Colorado grew by 18.2 percent – that's more than double the 8.2 percent growth in all jobs in the state. As of the end of 2009, Colorado had 17,000 clean-energy jobs.
- As of August of 2010, NREL had 329 contracts with Colorado companies totaling \$414 million, including \$75.3 million paid out in the most recent fiscal year.
- Construction at NREL in fiscal year 2010 totaled \$96 million, highlighted by the new 220,000-square-foot Research Support Facility, a building that is a showcase for energy efficiency and renewable energy technologies.