Energy for Colorado's Economy

Creating Jobs and Economic Growth with Renewable Energy

Travis Madsen
Timothy Telleen-Lawton
Will Coyne
Matt Baker

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Executive Summary

Developing Colorado's renewable energy resources will yield better results for Coloradans than building more coal- or gas-fired power plants. By investing in renewable energy to meet our electricity needs, we can create jobs, stabilize energy prices, and reduce the long-term economic and environmental risk from global warming pollution.

In this report, we use an economic model to evaluate the net impacts of expanding Colorado's commitment to clean and renewable energy by extending the renewable energy standard established under Amendment 37 to 20 percent by 2020 for investor-owned utilities, plus expanding it to include Colorado's cooperative electricity companies and eligible municipal utilities with a target of 10 percent by 2020.

Renewable energy improves Colorado's economy and environment, and should form a central part of Colorado's electricity system.

Renewable energy creates jobs.

- Expanding Colorado's renewable energy standard would create a net increase of 4,100 person-years of employment through 2020. It would also increase total wages paid to workers in the state by a net cumulative total of $570 million.[1] That's approximately four times the positive employment impact and twice the wage impact of Amendment 37.

Renewable energy creates economic growth.

- Expanding Colorado's renewable energy standard would increase Colorado's share of gross domestic product (GDP) by a net of $1.9 billion through 2020. The increase in GDP under an expanded standard would be almost twice as large as under Amendment 37.

Renewable energy benefits Colorado's rural areas.

- Landowners can lease land for wind farms, creating an additional income stream. An expanded renewable energy standard would supplement landowner income with cumulative total lease payments of $50 million through 2020 (60 percent more than under Amendment 37).
- According to the National Renewable Energy Laboratory, wind energy provides 10 times more local tax revenue than a coal-fired power plant in Colorado (on an energy-equivalent basis). Expanding Colorado's renewable energy standard would generate $400 million in property taxes (total through 2020) to fund education and other local government services, mainly in rural areas of the state (70 percent more than under Amendment 37).

Renewable energy prevents pollution and conserves water.

- An expanded renewable energy standard would reduce soot, smog, mercury and global warming pollution from Colorado's electricity sector in the year 2020 by approximately 11 percent (compared to business as usual). In that year, the expanded renewable energy program would be 2.3 times as effective at preventing pollution as Amendment 37 alone.
- An expanded renewable energy standard would save a cumulative total of 18 billion gallons of water through 2020, water that otherwise would be used for steam and cooling in coal- or gas-fired plants. That amount of water (almost twice as large as under Amendment 37) could completely fill Cherry Creek Reservoir more than twice.

Renewable energy keeps more of Colorado's energy dollars in the local economy compared to coal- and gas-fired power plants.

- The National Renewable Energy Lab estimates that a Colorado wind farm has more than three times the direct economic impact of an equivalent coal-fired power plant, and more than twice the impact of a gas-fired plant.
- The NREL study calculates that wind farms keep more than twice as much money in Colorado for construction and operation and maintenance as a coal plant, and more than three times as much as a gas plant.

Colorado has more than enough renewable energy resources to make a new energy future a reality.

- Colorado has excellent wind energy resources, with an estimated technical potential more than 10 times greater than the state's entire electricity needs in 2006.
- Solar photovoltaic panels occupying just 0.15 percent of Colorado's land area could generate nearly twice as much electricity as the state used in 2006.
- Colorado also has the potential to use agricultural wastes and switchgrass for energy, with the potential to generate up to 8 percent of the state's electricity needs.