



The Economics of Clean Energy in Arizona

Jobs, Savings, Investment, Competitiveness, and the Costs of Inaction

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Jobs

- There were 11,578 clean-energy jobs and 1,123 clean-energy businesses in Arizona as of 2007. This only counts direct jobs and not the many indirect jobs in industries that support the clean energy economy.
- The number of clean-energy jobs in Arizona grew by 21.3 percent between 1998 and 2007, while jobs overall grew by 16.2 percent.
- Arizona will see \$2.8 billion in new public and private investment due to programs and incentives under the American Recovery and Reinvestment Act and American Clean Energy and Security Act. These investments will lead to 29,548 net new clean-energy jobs in Arizona—even assuming some potential job losses in the fossil fuel sector as workers transition into the clean energy economy.
- Arizona needs these good-paying, private sector jobs—the state’s unemployment rate was at 9.2 percent as of August 2009.
- Green jobs in Arizona were distributed among the following sectors in 2008:
 - Conservation and pollution mitigation: 52.7 percent
 - Environmentally friendly production: 6.7 percent
 - Training and support: 5 percent
 - Energy efficiency: 12 percent
 - Clean energy: 23.6 percent

Consumer energy bill savings

- The average American family's annual spending on oil, gas, and electricity increased by \$1,100 under the Bush administration's energy policies. But American electricity and fuel bills would go down under the consumer protection provisions in the ACES bill.
- Emissions allowances allocated in the ACES bill for state efficiency programs alone will save Arizonans \$794 million between 2012 and 2020.
- The average household in Arizona will see a monthly savings of \$8.00 on their electricity bill by 2020 due to ACES' consumer protection and energy-efficiency provisions.
- Households in Arizona will also save \$18.40 on gasoline each month by 2020 due to lower oil prices and more fuel-efficient vehicles under ACES.

Investment and innovation

- The clean energy economy is already growing in Arizona. Private companies in Arizona invested \$31.1 million in clean energy from 2006 – 2008 through venture capital funds.
- An additional \$2.8 billion of public and private investment would flow into clean energy and energy efficiency in Arizona under the clean-energy investment provisions in the ACES bill and the ARRA stimulus package.
- Arizona's 1,123 clean-energy businesses patented 178 new clean-energy technologies in 2007 alone. Passing a strong clean-energy jobs bill this session is the best thing congress can do to unlock even more innovation and entrepreneurship across Arizona and the nation.
- The Springerville Generating Station Solar System, one of world's largest solar power generating farms, currently produces 4.6 megawatts of power annually from 34 solar arrays over a 44-acre plot. Other solar plants are in the works, including construction of a three-square mile solar farm about 50 miles south of Phoenix. This new plant will use concentrated heat from the sun to create steam and turn a turbine, generating 280 MW by 2011—enough to power 70,000 homes each year.

American competitiveness and energy independence

- The people of Arizona spent more than \$7.6 billion on imported crude oil in 2007 alone—more than \$1,169 per person.

- Without comprehensive clean-energy reform, Arizona taxpayers will spend \$560 million more over the next 10 years to subsidize wealthy oil and gas companies, and this is on top of their already record profits.

Costs of inaction

- The CBO predicted in May 2009 that climate change would cause decreases in future U.S. gross domestic product of between 3 and 5 percent, and global GDP of as much as 10 percent by the end of the century.
- Providing the water demanded throughout the United States will cost about \$950 billion more per year by 2100 as a result of climate change, much of which will be spent in the West and the South. Winter precipitation in Arizona is increasingly variable, with more frequent extremely dry spells and extremely wet winters.