



The Economics of Clean Energy in Pennsylvania

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

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Jobs

- There were 38,763 clean-energy jobs and 2,934 clean-energy businesses in Pennsylvania as of 2007. This only counts direct jobs and not the many indirect jobs in industries that support the clean energy economy.
- Pennsylvania will see \$6.1 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 71,667 net new clean-energy jobs in Pennsylvania—even assuming some potential job losses in the fossil fuel sector as workers transition into the clean energy economy.
- Pennsylvania needs these good-paying, private sector jobs—the state’s unemployment rate was at 8.6 percent as of August 2009.
- Green jobs in Pennsylvania were distributed among the following sectors in 2008:
 - Conservation and pollution mitigation: 63.7 percent
 - Environmentally friendly production: 1.6 percent
 - Training and support: 4.5 percent
 - Energy efficiency: 4.1 percent
 - Clean energy: 16.1 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 Pennsylvanians \$2.7 billion between 2012 and 2020.
- The average household in Pennsylvania will see a monthly savings of \$6.70 on their electricity bill by 2020 due to ACES' consumer protection and energy-efficiency provisions.
- Households in Pennsylvania will also save \$11.86 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 Pennsylvania. Private companies in Pennsylvania invested \$232.9 million in clean energy from 2006 – 2008 through venture capital funds.
- An additional \$6.1 billion of public and private investment would flow into clean energy and energy efficiency in Pennsylvania under the clean-energy investment provisions in the ACES bill and the ARRA stimulus package.
- Pennsylvania's 2,934 clean-energy businesses patented 241 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 Pennsylvania and the nation.
- Waymart Wind Energy Center, located in Wayne County, produces 64.5 megawatts of electricity a year, enough energy to power 22,000 homes.

American competitiveness and energy independence

- The people of Pennsylvania spent more than \$18.4 billion on imported crude oil in 2007 alone—more than \$1,478 per person.
- Without comprehensive clean-energy reform, Pennsylvania taxpayers will spend \$1.3 billion 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.
- More frequent and powerful flooding in Pennsylvania will inflict \$9.2 billion in damage more than once every 10 years. Rising temperatures will induce heat stress in Pennsylvania's dairy cows, which could cause \$480 million in economic losses by 2100 and affect up to 5,300 jobs.
- Lower water levels in Pennsylvania's waterways and a rise in sea level on Pennsylvania's coast will cause shipping and manufacturing losses of nearly \$1 billion every year.
- Pennsylvania farmers—who produce nearly \$5 billion annually for the state—will lose ground to droughts and agricultural pests. Pennsylvania's \$5.5 billion hunting, angling, and tourism industry could lose \$181 million and 2,000 jobs from the reduction in fish and game.