



ENERGY EFFICIENCY CREATES JOBS

The money Californians save due to energy efficiency creates jobs

- From 1972-2006, Californians saved over \$56 billion because of efficiency-focused building codes, appliance standards and utility programs, allowing them to redirect spending toward other goods and services, creating 1.5 million full-time equivalent jobs with a total payroll of \$45 billion.¹
- For every fossil fuel job made unnecessary by energy efficiency, up to 50 new jobs are created across California's diverse economy.²
- Meeting California's efficiency goals will create over 200,000 new jobs per year by 2020.³

Energy efficiency creates local and domestic jobs in three primary ways

1. *Energy efficiency creates much needed jobs in California's building sector*

- It is impossible to out-source contractors insulating attics or sealing ventilation duct.
- Over a nine month period in 2009, \$14 million in energy efficiency improvements financed by a Sonoma County program spurred an 8% increase in local construction jobs, during a time when neighboring counties continued to lose such jobs.⁴
- A recent survey shows that, within the next one to two years, 95% of home performance companies anticipate growth and 91% anticipate hiring.⁵

2. *Improving building efficiency also creates domestic manufacturing jobs*

- Products commonly used to make homes more energy efficient are often manufactured domestically. For example, more than 90% of fiberglass and spray foam insulation, caulk, and gas furnaces are manufactured domestically.⁶
- Aggressive efficiency policy drives innovation. Companies like Serious Materials, which manufactures high-performance windows and drywall, are developing and producing next generation energy efficiency materials in California.⁷

3. *When Californians reinvest their energy savings in the local economy, it creates even more local jobs*

- Utility efficiency programs, building codes, and appliance standards save Californians money on their utility bills. When Californians spend this money, it creates even more jobs throughout the economy than efficiency programs do in the building sector. Most of that spending and job creation happens in California. In contrast, a large portion of investments in fossil-fuel energy leave the state to pay for natural gas, oil, and coal.

California households enjoy lower utility bills than the national average

- The average California household's combined monthly electricity and natural gas bill was \$135 in 2006, compared to \$176 for the rest of the country. The average electricity bill for a Californian household was about half that of a Texan household. Instead of spending money on the capital-intensive fossil-fuel sector, California redirects these savings to the greater economy, creating more wealth and more jobs per dollar.⁸
- Energy efficiency programs are funded by utility customers as a cheaper alternative to investments in power plants and other infrastructure. Efficiency puts cash back in consumer's pockets.

Energy efficiency makes California's economy more productive

- Nationwide, California has the fourth-lowest electricity bill as a fraction of state GDP. Californians have about \$29 billion more annual income than they would have if the state were only as efficient as Texas.⁹
- Businesses that lower their operating expenses through greater energy efficiency increase profits, contribute more in taxes, and can afford to hire more employees.

Clean energy jobs are the bright spot in California's economy

- From 1995 to 2007, clean energy jobs grew 15% in California, while overall statewide job growth was only 1%.¹⁰
- From 1995 to 2008, the number of California green businesses expanded 45%.¹¹
- Clean energy investment grew in California while the rest of the economy shrank in 2008. Clean technology attracted the most venture capital of any sector in 2008, with \$3.3 billion invested in California companies, and \$5.9 billion committed in North America.¹²
- The workforce of California's energy efficiency industry grew 20% in 2009, and by another 17% in the first four months of 2010 alone. The same companies anticipate increasing employment by an additional 49% by the end of 2010.¹³

Recommendations to maximize job creation from energy efficiency policies

Because the largest source of energy efficiency job creation results from customers reinvesting their savings in local economies, the best way to create jobs is to maximize customer savings. Increasing customer savings, which maximizes job creation, depends on three policy priorities:

1. *Upgrade the states building efficiency codes, appliance standards, and existing building stock.* Codes and standards, adopted by the California Energy Commission (CEC), yield enormous savings from new buildings and appliances. CEC efforts to improve the efficiency of existing buildings will generate similar savings across the board.
2. *Maximize all cost-effective savings from utility efficiency programs.* The California Public Utilities Commission and the governing boards of the publicly-owned utilities should set aggressive energy saving targets for both investor-owned and publicly-owned utilities.
3. *Continue aggressive research, development and demonstration efforts* to ensure the state has a continuous supply of next-generation efficiency opportunities ready for the programs and standards.

¹ Roland-Holst, University of California, Berkeley, *Energy Efficiency, Innovation, & Job Creation in California*, October, 2008, p. 4.

² Roland-Holst, University of California, Berkeley, *Energy Efficiency, Innovation, & Job Creation in California*, October, 2008, p. 5.

³ Donald Vial Center, University of California, Berkeley, *California Workforce Education & Training Needs Assessment*, 2011, p. ix.

⁴ Sherwood, *Green Jobs Created Through \$100 Million Sonoma County Energy Independence Program*, November, 2009.

⁵ Home Performance Resource Center, *Green Jobs in the Residential Energy Efficiency Industry*, May, 2010, p. 3; *2010 Efficiency First Workforce Study*, May, 2010, p. 6.

⁶ Home Performance Resource Center, *Domestic Manufacturing Shares of Common Energy Remodeling Products*, 2010, p. 2.

⁷ <http://www.seriousmaterials.com/>

⁸ Next Ten, *California Green Innovation Index*, 2009, p. 63-64.

⁹ Next Ten, *2010 California Green Innovation Index*, 2010, p. 41.

¹⁰ Next Ten, *California Green Innovation Index*, 2009, p. 70.

¹¹ Next Ten, *Many Shades of Green: Diversity and Distribution of California's Green Jobs*, December, 2009, p. 4.

¹² The Cleantech Group, *Cleantech 2009: The Emergence of A Low Carbon Economy*, April 2009, p. 2.

¹³ California Energy Efficiency Council, *Industry Survey Shows that Energy Efficiency in California is Creating "Real People, Real Jobs" at a Record Rate*, September, 2010.