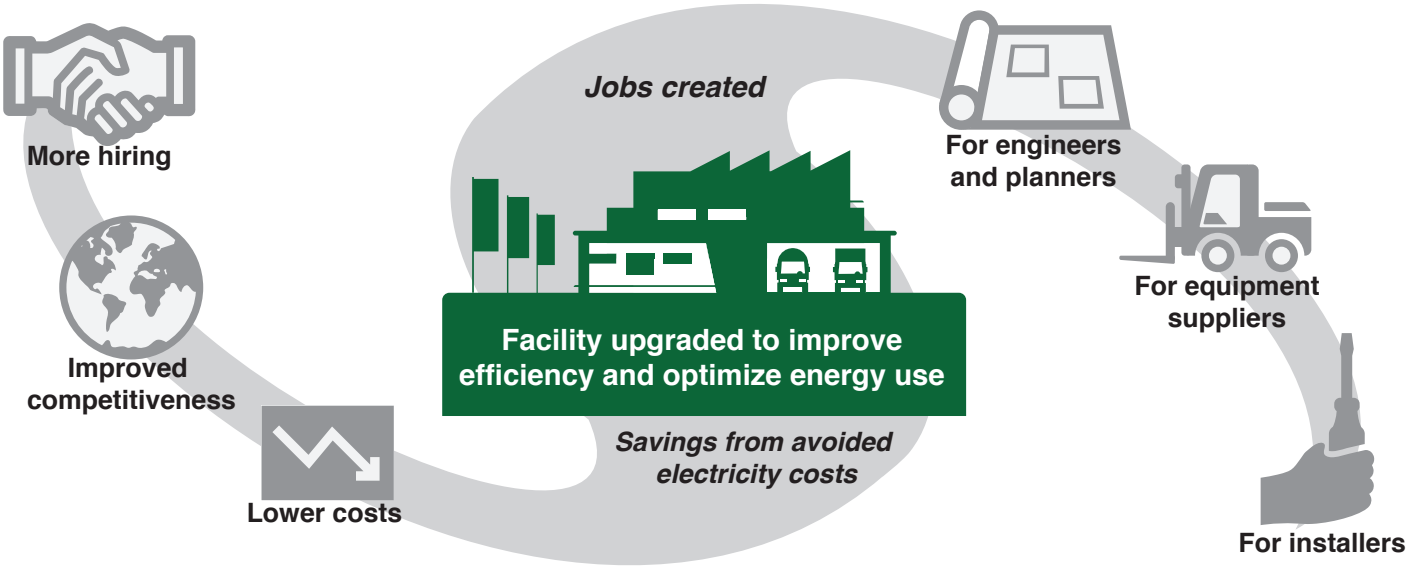
ACEEE
American Council for an Energy-Efficient Economy

NORTH AMERICA'S BUILDING TRADES UNIONS
Value on Display. Every Day.

Energy Efficiency to Reduce Pollution and Create Jobs



The quickest, cleanest, and cheapest way to reduce pollution and meet electricity demand is with energy efficiency. Reducing waste eliminates pollution and saves money. It also creates jobs. In fact, ACEEE found that if all states adopted a few proven energy efficiency policies, they could create over 600,000 new jobs.[1] The workforce has emerged as a vital issue in the successful implementation of energy efficiency throughout all sectors. It is particularly critical in manufacturing, both in saving energy and in increasing production and productivity.

ENERGY EFFICIENCY IS A JOBS OPPORTUNITY

Energy efficiency creates jobs with fair wages and lowers energy costs throughout many domestic industries. When energy efficiency measures are installed, whether through government incentives or private sector investment, they create a demand for skilled labor. Efficiency projects not only require skilled craftsmen and women to build and maintain projects, but they take teams of planners, engineers, and financiers to execute and complete them. Skilled and certified labor is needed to improve the efficiency of boilers. Energy efficiency measures may require engineers and expert installers to get systems up and running, optimize energy use, or capture wasted heat and put it to productive use. Entire systems can be upgraded to improve manufacturing efficiency, heating, and cooling while reducing thermal losses. These projects create demand for a skilled workforce in businesses, commercial buildings, industrial and manufacturing facilities, and large institutional buildings such as hospitals and universities.

INVESTMENTS IN ENERGY EFFICIENCY STIMULATE EMPLOYMENT IN MULTIPLE WAYS

It takes a significant amount of labor to plan, manage, install, and construct an energy efficiency project. This means jobs for engineers and skilled pipefitters, glaziers, insulators, and operating engineers, to name a few.

Once projects are saving energy, productivity improves. This means businesses are saving money through reduced energy costs. These savings heighten their competitiveness, increasing demand for their products and for the workers that help make them. Companies can reinvest their savings into additional manufacturing shifts, research and development or any number of other projects that expand their market share, adding jobs along the way.

WHAT DO THESE JOBS LOOK LIKE?

Energy efficiency catalyzes employment opportunities that draw on the broad range of Americans' skills such as construction, engineering, maintenance, and contracting. These jobs are created directly (i.e., installing the measures), via new expenditures made possible by reduced costs, and indirectly by increasing demand for high-efficiency products in the manufacturing supply chain. By their nature, many of these jobs cannot be offshored.

Energy efficiency is much more than installing modern windows and insulating buildings. It requires a highly skilled, highly trained workforce to ensure that multimillion dollar investments are properly integrated into existing systems and correctly installed. In addition, a well trained workforce is needed to design and operate commercial and institutional buildings, which have increasingly sophisticated controls.

The right policies allow contractors, local business, and the building trades to develop a highly skilled and productive workforce. Coupled with appropriate incentives to deploy efficiency measures, these policies can help communities reap the benefit of reduced pollution and job creation.

HOW CAN STATES USE ENERGY EFFICIENCY TO CREATE JOBS AND REDUCE POLLUTION?

Provisions in the Clean Air Act will require all states to regulate carbon dioxide from power plants, whether through the current Clean Power Plan or a revised rule. Coming regulations will further limit power plant emissions of NO_x and SO_2. Energy efficiency reduces all of these pollutants simultaneously while strengthening local economies. Here are some steps a state can take to take advantage of low-cost efficiency to reduce pollution and create jobs.

Step 1. Ensure that energy efficiency is a major part of a state's energy plan. Whether a state is considering solar, wind, natural gas, nuclear, carbon capture, or all of the above, energy efficiency should be a central part of the plan.

Step 2. Ensure that businesses and industry can receive incentives for investments in energy efficiency that reduce pollution. States should develop an approach where the costs of reducing pollution can be reinvested to support energy efficiency investments. States can design emissions trading programs where they auction or sell allowances and allocate funds directly to efficiency programs and projects. They can also award allowances directly to project developers and program administrators.

Step 3. Involve representatives of the business and labor communities in planning. Stakeholder processes should be transparent and inclusive. States should seek the input of the labor community to ensure that policies will maximize employment opportunities and guarantee that the state has a ready workforce.

Step 4. Ensure that a qualified workforce is available to meet the demand. The investment of public monies through grants, incentives, or any other mechanism should have prevailing wage requirements and, for substantial projects, encourage the use of Project Labor Agreements (PLAs). PLAs allow for the terms, wages, and conditions of employment to be established on construction projects. The most sophisticated PLAs are crafted not only to address specific project issues (such as local hiring, scheduling, work rules, and employment outreach to workers and contractors of color, women, and veterans.) but also to supplement and enhance communities' development of sustainable career opportunities within the skilled trades workforce.

Many states use prevailing wage requirements to require companies that want to contract for projects funded with public money to pay their employees a wage that reflects wages commonly received in the area. Prevailing wage laws ensure that public investment in development results in high-quality workmanship and contributes to the economic well-being of the community by investing in its workforce. Prevailing wage laws also ensure that public works construction projects are not awarded to low-road contractors that can underbid their competition by paying lower wages and failing to offer benefits like health care to workers and their families.

These steps can help states as they navigate a major transition in the electric generating sector. The availability of affordable new technologies combined with commitments to reduce pollution means a new direction for electric power in this country. State regulators have an opportunity to embark in this direction and set a course for a healthy and prosperous future.

PUTTING IT IN PRACTICE

To meet workforce needs and job demands, organizations such as North America's Building Trades Unions and its signatory contractors have funded and operated a skilled craft apprenticeship system for over 100 years.

Programs like this provide a gateway to building trades through registered apprenticeship programs. Apprenticeship and workplace-based training is an "earn while you learn" system that offers local residents, particularly those from underserved communities, including women, people of color and transitioning veterans, the chance to learn from the best trained construction workers in North America.

For employers, the improved safety and increased productivity of these skilled craft workers typically return as much as $3 to every $1 that is invested. For the worker, those completing an apprenticeship earn substantially more over a career than the average two-year college graduate.

[1]http://aceee.org/research-report/e1401