



Strategic Plan: 2015 to 2017

The American Council for an Energy-Efficient Economy (ACEEE) is a 501(c)(3) nonprofit organization that was founded in 1980 by leading researchers in the energy field. Since that time, the United States has made significant strides in improving energy efficiency across all sectors of the economy. Nevertheless, the nation is now at a critical juncture. Faced with a recovering economy and increasing concerns over our changing climate, it is imperative that we act quickly. During the next 5 to 10 years, we must accelerate the pace of efficiency gains to shift the United States onto a new, more sustainable energy trajectory that can ensure our continued economic strength and quality of life.

Vision

The United States can harness the full potential of energy efficiency to achieve greater economic prosperity, energy security, and environmental protection for all its people.

Mission

Through research and outreach ACEEE acts as a catalyst to advance energy efficiency policies, programs, technologies, investments, and behaviors.

Core Values

- *Integrity:* We base our recommendations on fact-based research and analysis.
- *Collaboration:* We seek input from a diverse group of stakeholders to develop viable recommendations.
- *Leadership:* We explore cutting-edge approaches and help others see new and better ways to save energy.
- *Persistence:* We stay focused on critical policy issues – often over multiple years – to achieve larger and more lasting effects.

Goal

ACEEE's overarching goal is to cut total U.S. energy consumption in half by 2050,¹ while still maintaining a robust economy. This achievement would reduce total annual consumption to about 63 Quads, or 34% below 2012 levels.

¹ Relative to projections based on the *2010 Annual Energy Outlook*, extended to 2050 using growth rates projected in 2010 for the 2030-2035 period.

The Role of Energy Efficiency

Since the Mideast oil embargo of 1973 the United States has reduced its overall energy intensity by about half, making energy efficiency the largest contributor to meeting our energy needs.¹

Energy efficiency has three key benefits:

- It improves the economy by reducing energy bills and price volatility, by generating jobs, and by improving productivity and competitiveness.
- It strengthens energy security by reducing our exposure to politically-induced volatility and helping ensure more stable and reliable energy systems.
- It helps the environment by reducing greenhouse gas emissions, air pollution, and harm to water quality and wildlife.

Despite efficiency advances, total energy consumption in the United States has risen steadily since 1973, increasing about 30% as our population and economy grew 49% and 186% respectively. Greenhouse gas emissions and oil imports also grew steadily. In the last five years, however, total energy use in all sectors of the economy has decreased, in part because of efficiency measures as well as the economic downturn. Oil imports have been decreasing since their peak in 2006,² due to improved fuel economy, reduced driving, and increased domestic oil and gas production. Electricity consumption has essentially stopped growing in the past few years. Retail electricity sales in 2012 were 1.9% lower than sales in 2007, the peak year. While a number of factors have contributed to this, our research shows that energy efficiency may have played a significant role.

ACEEE research has identified specific energy-efficiency actions that by 2050 could cost-effectively reduce U.S. energy use by as much as 34% below our 2012 level of consumption.³ Carbon dioxide emissions would fall by a roughly similar amount. Stated another way, by aggressively pursuing energy efficiency, by 2050 we could increase our energy productivity (\$GDP per unit energy consumed) by a factor of 2.7 relative to 2013. Many nations are already far ahead of the United States in reducing the energy intensity of their economies.⁴ To get there, we will need to integrate new efficiency technologies and approaches far more deeply and broadly into our economy.

2015 to 2017 Outlook

Several trends threaten recent gains and our ability to reach efficiency's potential. Domestic natural gas and oil production are increasing substantially for the first time in decades, aiding the economy but reducing economic and security pressure for energy efficiency measures. Still, energy efficiency will generally be much less expensive per unit of energy than natural gas. Other recent trends that will affect our work include moves towards more urban-centered development and reductions in vehicle miles traveled. In addition, utilities, which have funded a dramatic increase in energy-efficiency programs, are now facing multiple challenges, including capital needs to meet new emissions standards and to upgrade transmission and distribution systems, declining sales with which to fund them, and uncertainty about long-term competition from distributed generation.

¹ Many factors are involved and this is a simplified presentation. In 1973 the United States consumed 13.97 trillion Btu per real dollar of Gross Domestic Product (GDP inflation adjusted to 2009). By 2013 this was down to 18 trillion Btu/\$ GDP, a 52% reduction. Prior to 1973, energy intensity was declining at an average rate of 0.4% per year, which would have reduced intensity by only 14%.

² See EIA data available at <http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=MTTIMUS1&f=M>

³ Since we set a target of a 50% reduction by 2050, consumption has started to fall as have energy consumption projections for 2050.

⁴ From 2000–2011, U.S. energy intensity decreased 20%. The United States lags 11 other large economies on this metric including France, Australia, China, Germany, Spain and Canada which improved at more than double the U.S. rate.

Continued political polarization suggests that federal legislative gridlock is likely to hold at least through the 2016 election, and is increasingly affecting states as well. Despite public support for action on climate change, disagreements over the size and role of government often prevent a response, and all levels of government lack funding to invest in efficiency programs. Still, there has been bipartisan interest in energy efficiency legislation, and the administration is moving aggressively to reduce greenhouse gas emissions, including from regulation of existing power plants and appliance and vehicle efficiency standards. ACEEE's research-based approach is well-suited to support effective government action. It also is important to continue to build legislative relationships with a broad spectrum of policymakers and to develop an agenda, focusing on economic benefits, so we will have broad support for action when the logjam starts to break.

A critical mass of states (notably in the Southeast) are implementing new energy policies, and local governments are also increasingly taking action. ACEEE will extend its effective work to help states and utilities implement those policies in ways that use the evolving utility business model to provide economic benefits to both consumers and utilities. ACEEE is growing its work to help cities develop sustained initiatives. Many communities are increasingly motivated to become more energy resilient, spurred by such events as Hurricane Sandy.

Many businesses are sitting on large amounts of cash due to economic and political uncertainty. When the economy improves, they will make large investments to modernize buildings and manufacturing plants, including a focus on reducing energy costs and risk. Working with business leaders to promote effective efficiency investments and policies is an important way ACEEE can bolster efficiency without government funding.

2015 to 2017 Goal and Strategy

The last few years have been a period of slow recovery from a severe economic recession. Even if the next three years are a period of positive economic growth, we expect fiscal austerity and reduced government spending on energy efficiency. To make further progress we will need to promote all the economic, environmental and security benefits of energy efficiency. Our goal during the 2015-2017 period will be to continue steady energy efficiency progress through a combination of private sector, state, local and federal action (primarily using existing authority), while maintaining the gains of recent years and laying the groundwork for future activity in critical areas.

ACEEE has identified four pillars to help achieve this goal:

- 1) Advance policies that drive greater public and private investment in energy efficiency
- 2) Develop and demonstrate new approaches that eliminate energy waste within and across multiple sectors of the economy
- 3) Build greater support for energy efficiency among key stakeholders
- 4) Continue to build a great organization.

Pillars

1) Advance policies that drive greater public and private investment in energy efficiency

ACEEE will continue its long-standing efforts to encourage adoption of effective policies that achieve greater energy efficiency. For the next three years, resources will be deployed on two fronts: promoting and defending policies and practices that have been demonstrated to be

effective means for capturing energy efficiency at the federal, state, and local levels; and identifying and promoting new technologies, practices, programs, and policies that will likely lead to better energy efficiency outcomes. Our basic approach will be to conduct analysis and research on the impacts of potential policy options, and share the results with policymakers and other stakeholders through published reports, testimony, regulatory comments, negotiated settlements, technical assistance, conferences, media outreach, and our website.

Our priority strategies include the following:

- Promote government action where pre-existing authority has been identified and prioritized as effective for energy productivity gains, especially the integration of energy efficiency objectives into air quality regulatory frameworks.
- Promote adoption and effectiveness of equipment, system, vehicle, and building efficiency standards.
- Help states, utilities, and other efficiency program sponsors maximize the savings achieved through efficiency programs and provide support to those seeking to ramp up their programs. Conduct “rapid response” analysis and outreach to support policies or programs under attack.
- Encourage states to adopt energy savings targets or related policies, as well as the associated regulatory reforms that facilitate the use of energy efficiency as an important resource.
- Advance policies and programs that lead the federal, state, and local governments and the private sector to innovate and create new energy efficiency initiatives such as improving salience of efficiency at point of purchase, expanding availability of efficiency financing, and addressing efficiency disincentives in tax codes.
- Promote continued government funding for critical foundation activities including data collection, R&D, standards, and training.

2) Develop and demonstrate new approaches to eliminating energy waste within and across multiple sectors of the economy

ACEEE is laying the groundwork to apply new tools and methods to realize further large-scale energy savings. These approaches include: systems-level and cross-sectoral analysis; behavioral insights and methods; and application of information and communications technology. A systems-level perspective on buildings, for example, would consider whole-building energy efficiency potential instead of targeting individual equipment or appliance efficiency. Greater data availability, distributed computing power, mobile connectivity, and the cloud provide opportunities for near-real-time feedback to optimize processes and customize solutions for diverse users, creating the promising area of “intelligent efficiency.”

To make the most of these new opportunities, we will:

- Continue to drive the conversation on intelligent efficiency by quantifying the potential and promoting broader deployment of emerging information and communication technologies across all sectors and by exploring the implication of the “internet of things.”
- Define and pursue systems-level efficiency opportunities across all sectors and enhance our ability to quantify the associated benefits.

- Work to better integrate social and behavioral science methodologies into our work and into the development of energy efficiency technologies, programs and policies.
- Take advantage of the growing availability of energy usage data to i) increase the effectiveness of the policies and programs we promote, ii) spur individual actions by energy consumers, and ii) diversify our research and outreach products.
- Help to define and advance next generation utility programs, including those involving a systems approach, drawing on behavioral insights, or utilizing information and communications technologies.
- Promote integrated community-level strategies to advance energy efficiency, sustainability and economic development with a focus on low-income communities.
- Enhance and apply our economic analysis capabilities to evaluate new approaches to eliminating energy waste.

3) Build greater support for energy efficiency among key stakeholders

To accelerate the pace of efficiency improvements, there will need to be greater political and popular support for energy efficiency and the types of policies, programs, and investments to achieve it.

Our priority activities under this strategy will include the following:

- Expand our efforts to quantify and document key benefits of energy efficiency, including economic productivity, job creation, climate change mitigation, resiliency and risk mitigation, air quality and health protection, and other quality of life improvements.
- Identify ways ACEEE could partner with businesses, Ally Program members, and regional energy efficiency groups.
- Reach out to and build working relationships with nontraditional partners to increase support for energy efficiency by relating and linking to their concerns.
- Utilize conferences to expand the horizons for energy efficiency and facilitate collaborative efforts. Develop conference content which attracts and educates new energy efficiency proponents and remains relevant to our long-term audiences.
- Utilize traditional and new communications tools while ensuring high quality and responsiveness to media.

4) Continue to build a great organization

Over the next three years, we will continue to focus on organizational improvements that ensure we produce well-regarded, timely, and relevant work products. We will also implement processes that improve efficiency and productivity with a professional culture that is open, entrepreneurial, collegial, and creative.

Our priority strategies include the following:

Work Products

- Strengthen our analytical competencies and continue to incorporate up-to-date analytical methods. Ensure transparency of our research methods.
- Ensure the accuracy and consistency of our research results, policy recommendations. Maintain quality control procedures for external work products, including a rigorous external review process.

- Working with ACEEE's Research Advisory Board, continually assess and communicate to staff our research priorities and new research areas.
- Encourage opportunities for staff to present and publish externally.

Management

- Nourish the culture of internal communication and cross-departmental collaboration.
- Continue growing a diverse funding base in order to be a financially sound and unbiased organization.

People & Systems

- Build a pipeline of diverse talent. Identify and understand staff skills, competencies, experiences, attitudes for the purpose of developing staff.
- Invest in and cultivate our human resources through coaching and mentoring.
- Deploy efficient, accurate, and responsive administrative systems that provide excellent internal resources and employee support.