

ENERGY AND INFRASTRUCTURE

Energy Efficiency: the First Fuel in the Race for Clean Energy

Bill Prindle

By focusing on energy efficiency a governor can reduce costs to consumers, businesses, and government and create a more robust, reliable, and sustainable economy.

Why energy efficiency is the “first fuel”

Energy efficiency is the “first fuel” in the race for clean energy—no supply system will be able to keep up if we do not reduce our energy demand growth. We must keep demand growth in a sustainable range, and then supply this moderate energy use with clean energy technologies. We know how to do this—since the 1970s, we cut the energy needed in half to produce a dollar of economic output, contributing more to the economy than any conventional energy source. Today’s efficiency technologies board can cut this energy “intensity” in half again. But we need policy tools and political will to make this happen because persistent market barriers keep energy efficiency investment far below its potential.

What policy tools can tap energy efficiency?

Three of the most powerful tools governors can use to moderate energy demand growth are:

1. **Lead by example.** Make state buildings and fleets as energy efficient as possible through construction standards, purchasing policies, and energy-savings targets.
2. **Set resource targets for electricity and gas.** Set goals for utilities to save energy at customer sites, possibly in combination with targets for renewable energy resources.
3. **Save oil through fuel economy and smart growth.** Join the 11 states that have adopted tailpipe emissions standards for carbon dioxide, and institute smart growth policies that channel growth in sustainable patterns.

What will energy efficiency investment bring to my state?

Energy efficiency policies will enable governors to:

- Put the brakes on high energy prices, giving state economies more breathing room
- Create good, local jobs that reverse the flow of energy dollars out of state
- Cut consumer energy bills, allowing families to spend more on what matters
- Reduce the risk of blackouts that can cripple a high-tech economy like ours
- Cut air pollutant and carbon emissions to begin the transition to a clean energy future

What is the state of the art on state energy efficiency policy?

Since the 1970s, states have become leaders in progressive energy policy. California instituted the first building energy codes, appliance efficiency standards, and utility efficiency programs in that era, and continues to lead in many areas. But other states have also stepped up in these and other areas. While legislatures have had a role in many of these initiatives, governors have led the way much of the time. Key opportunities for governors today include:

- **State building and vehicle fleets.** Many governors have set purchasing guidelines by executive order for vehicles and appliances, and have set energy savings targets for new and existing buildings. This “leadership by example” helps drive new markets for efficiency that can spill over into the private sector.
- **Building codes.** Adopting and enforcing newer, tougher codes to lighten the “footprint” of new buildings. Many states have this administrative authority, and simply need the encouragement and budget support to do it.
- **Appliance standards.** While federal law covers standards for many products, states have continued to set standards for other types of equipment. Legislation is often required, but once the authority is created, executive agencies can update or expand standards coverage.
- **Utility policies.** State utility commissions can determine efficiency policies for electricity and gas usage. Key policy options include:
 - **Interconnection, metering, and tariff policies** for distributed generation. This encourages efficient and renewable power generation onto the grid by removing utility barriers aimed at limiting competition.
 - **Ratemaking policies for efficiency.** Utilities now typically lose money by “unselling” their product. But several states have reformed rate rules to make efficiency investments profitable for shareholders as well as customers.
 - **Resource targets.** Many states have set standards for renewable energy purchases (Renewable Portfolio Standards, or RPS), and several have also set targets for efficiency program savings. These Energy Efficiency Resource Standards can cut electricity demand growth by half or more, which makes it possible for RPS to make a bigger dent in fossil energy generation.

States have been running effective programs in the utility sector for more than two decades. This experience shows that energy efficiency can be acquired in large amounts at an average price of 3 cents per kilowatt-hour, less than half the national average electricity rate.

- **Oil use in transportation.** States are moving forward on two fronts: improving vehicle fuel economy, and reducing growth in vehicle travel through smart growth policies.
 - **Fuel economy.** Federal law preempts states from regulating vehicle mileage directly, but 11 states have adopted a version of the California tailpipe-carbon emissions law. Several governors have taken the lead in advocating for this policy.
 - **Smart growth.** Several governors have led the way towards better management of public resources to guide development in areas that keep the need for new vehicle travel down while minimizing other negative environmental impacts.

These policies can change the trajectory of energy use. Combined with renewable energy sources, they can create a clean energy revolution that reshapes and recharges state economies while improving the environment. But they will not happen without governor-level leadership. The states that have done the most on clean energy have had governors who led on these issues. Now is the time to use energy efficiency as the 'first fuel' in the race for clean and secure energy for this new century.

Mr. Prindle is the Deputy Director of the American Council for an Energy-Efficient Economy, and directs ACEEE's energy policy program, which conducts policy analysis and advocacy on energy efficiency issues at the national and state levels. In more than 30 years in the energy field, he has worked in regional planning, corporate communications, management consulting, and association management. He has testified before Congress, appeared on radio and TV, and been published frequently as an expert on energy efficiency. Bill earned a B.A. degree in Psychology from Swarthmore College and an M.S. from the University of Pennsylvania. He has served on the boards of such organizations as the Energy and Environmental Building Association, the Association of Energy Services Professionals, and the National Fenestration Rating Council.