



The Energy Efficiency Performance Standard: A Fair and Effective Way to Realize the Economic and Environment Benefits of Greater Energy Efficiency

Overview

An energy efficiency performance standard would set a national goal for energy savings that would be implemented and enforced at the state level. Each company that provides retail electric service would be required to implement measures each year to save the equivalent of 1 percent of the electricity used by its customers. The U.S. Department of Energy (DOE) would set uniform national energy savings measurement protocols for retailers to use to measure, verify, and report energy savings achieved. State public service commissions or other governing boards would be responsible for verification and enforcement. If a state regulator declined these functions, DOE would assume them.

Electricity retailers would be free to meet the 1 percent savings goal in any manner they choose. The retailers could achieve these savings through measures such as appliance rebate programs, consumer education campaigns, and programs that offer technical assistance and financial incentives to encourage investment in energy-efficient technologies. Electricity retailers could also meet the savings goal by purchasing energy savings credits from other retailers that generated such credits by achieving greater savings than required. This market-based approach would give retailers flexibility and spur efficiency innovation.

The energy efficiency performance standard would result in over 340 terawatt-hours of annual energy savings by the year 2012, providing over \$12 billion of net benefits to consumers in that year. It also would reduce peak demand by about 68,000 megawatts or more by the year 2012, which would greatly reduce the need for new power plant construction and corresponding transmission and distribution system expansions. These savings would be equivalent to avoiding 227 typical (300 megawatt) power plants.

Benefits of Energy Efficiency

Investments in energy efficiency are highly cost-effective. At a cost of \$0.03 per kilowatt-hour saved (a realistic assumption based on research of recent program practices), efficiency improvements are significantly less expensive than building new plants and power lines and burning more fuel. Increasing energy efficiency also reduces the harm to public health and the environment from air and water pollution, mining, and other aspects of power production. In addition, efficiency improvements enhance the reliability of electricity supplies by reducing system loads and stresses. In the past, utilities have made impressive efficiency gains, and existing technologies could further increase efficiency dramatically.

Need for a National Energy Efficiency Goal

Energy efficiency benefits consumers, businesses, and the economy, but power companies generally profit by selling more power. Consequently, investment in energy efficiency programs has fallen

dramatically as states have restructured their utility industries and power markets have become more competitive. Proponents of utility restructuring have claimed market forces would produce greater levels of efficiency, but research shows that this has not occurred. Nor have individual state energy efficiency programs reversed the nationwide decline.

Advantages of Establishing a National Energy Efficiency Performance Standard

This provision would establish a level playing field for electricity retailers across the country by setting a national minimum performance-based requirement for energy efficiency. National energy savings measurement and verification protocols would ensure consistent implementation across the states and aid compliance verification. While the federal government would establish minimum standards, states could choose to administer the program, preserving traditional state authority and discretion in this area.

Development and application of fair, accurate, and workable measurement and verification protocols are essential to implementing a performance standard. DOE and the states have extensive experience in measuring energy efficiency savings under existing protocols, such as the *International Performance Measurement & Verification Protocol*, published by DOE.

The energy efficiency performance standard would not discourage state efforts to implement public benefits programs, which would contribute to the national efficiency goal. States would also be free to implement programs that achieve even greater levels of savings.

Experience with Energy Efficiency Programs

The energy efficiency performance standard would build upon the successes of over three decades of energy conservation and efficiency programs in the United States. A performance standard approach has already been adopted at the state level in Texas. As part of electricity restructuring, Texas required utilities to use efficiency to reduce load growth by 10 percent beginning in 2001. This concept is also similar to that of the renewable energy portfolio standard, which has been adopted in at least eight states and is being considered at the national level.

The proposed level of required savings—1 percent per year—is an aggressive but reasonable target. Many utilities and states have achieved savings of this magnitude through their efficiency programs. For example, California achieved 5 percent savings in 2001 alone. An analysis by five national energy laboratories found that cost-effective nationwide savings of more than 1 percent per year are achievable over both 10- and 20-year periods.

Current Status

Legislative language for an energy efficiency performance standard is now being developed by House and Senate offices. In the House, an efficiency performance standard is likely to be introduced during Committee markup of an electricity restructuring bill. In the Senate, such a provision is likely to be considered as part of comprehensive energy legislation. Both the House and Senate are scheduled to act in the first few months of 2002.