

Efficiency Provisions of the Energy Independence and Security Act of 2007

Michael Reid

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The Energy Independence and Security Act of 2007 (EISA, pronounced “EE-sa”), signed into law as Public Law 110-140 on December 19, 2007, will exert profound influences on the use of energy in the U.S. for decades to come. The Alliance to Save Energy called it the most significant energy-efficiency legislation in at least three decades.¹ The American Council for an Energy-Efficient Economy (ACEEE) estimated that EISA’s energy-efficiency provisions will reduce domestic energy consumption in 2030 by 7 percent and carbon dioxide emissions in 2030 by 9 percent relative to the U.S. Department of Energy’s (DOE’s) pre-EISA forecast.²

Like its predecessors in the realm of major energy legislation, EISA is a hefty package. The official printed version spans 310 pages, rich with arcane details that are difficult for nearly everyone—except lobbyists and congressional aides—to decipher. Not all of EISA is dedicated to energy-efficiency matters: The renewable fuels industry, in particular, will receive a boost through the act’s mandates for expanded use of biofuels such as cellulosic ethanol and biomass-based diesel.

Rather than tackling EISA in its entirety, our aim in this issue of *Energy Managers’ Quarterly* is to briefly summarize the efficiency-related portions that are most relevant to energy managers in large industrial, commercial, and institutional organizations.

The bulk of the savings from EISA will be driven by new and more stringent energy-efficiency standards covering vehicles, lighting, motors, and other categories of energy-using equipment. Some of the new standards have already gone into effect, and others will be phased in over the next several years.

EISA also authorizes the DOE and other federal agencies to implement several programs and initiatives that could prove important to energy managers. *Could* is the operative word because these programs and initiatives are contingent upon funding being obtained through the normal federal budgetary process—and that hasn’t happened yet.

In general, federal agencies can’t spend money without going through a two-step process: (1) authorization, followed by (2) appropriation. EISA authorizes hundreds of millions of dollars for efficiency-related activities—research, development, demonstration projects, and more—but those authorizations count for little until they are backed by appropriations in response to agencies’ fiscal year 2009 budget requests. In principle, Congress could complete the appropriations process before the start of the 2009 fiscal year on October 1. What’s more likely, however, is that Congress will pass a “continuing resolution” that will keep spending at 2008 levels beyond the end of the 2008 fiscal year.³ In the absence of appropriations, many of the programs authorized in EISA are the functional equivalent of items on the government’s to-do list: They may come about, but it’s not clear when, and they could fall off the list if higher priorities emerge in the appropriations process.

WHERE TO GET EISA

The authoritative text of the Energy Independence and Security Act of 2007 (EISA) is available from the web site of the U.S. Government Printing Office (GPO). Here's how to get your own copy:

1. Point your web browser to the GPO's listing of all laws passed by the 110th Congress, www.gpoaccess.gov/plaws/110publ.html.
2. Scroll down about halfway to the entry labeled "Pub.L. 110-140."
3. Use one of the links immediately below the description of the law to retrieve either a PDF or a plain-text version.

EISA is divided into fourteen major sections, known as "titles" and designated by Roman numerals; within titles, it is divided by lettered subtitles (A, B) and uniquely numbered sections (101, 102).

EFFICIENCY STANDARDS ADDED OR CHANGED BY EISA

Federal energy efficiency standards have been around for vehicles since the 1970s and for lighting, appliances, and more since the 1980s. EISA strengthens some existing standards and adds standards for some equipment not previously covered.

EISA sets new energy-efficiency standards for vehicles, lighting, motors, and several other categories of end-use equipment. In this section, we describe the standards that affect categories of equipment likely to be purchased by businesses. Standards that apply to equipment primarily used by consumers (for example, residential clothes washers) are not described here.

Vehicles (Section 102)

ACEEE estimates that about 60 percent of the savings from EISA will come from the new and expanded Corporate Average Fuel Economy (CAFE) standards—the first overhaul of the mileage requirements in more than 30 years. Over the long run, these changes should yield fuel and cost savings for organizations that maintain fleets of cars and trucks.

Pre-EISA regulations established separate CAFE standards for automobiles and "light trucks," a category that includes pickups, minivans, and sport-utility vehicles. The current standard for automobiles is 27.5 miles per gallon (mpg); for light trucks, it's 22.5 mpg in 2008, increasing to 23.5 mpg in 2010. EISA mandates that the standards for both vehicle categories reach at least 35 mpg by 2020, but the specifics are under the control of the National Highway Traffic Safety Administration (NHTSA), which is required to determine the "maximum feasible" values based on technology, economics, and other considerations.

NHTSA has a rule-making process under way to set the specific CAFE values for 2011–2015. NHTSA's proposal, announced in April 2008, would ramp up the requirements over this period so that in 2015, the standards would reach 35.7 mpg for automobiles and 28.6 mpg for light trucks.⁴

EISA also directs NHTSA to establish mpg standards for commercial and heavy-duty vehicles and “work trucks,” which have not previously been subject to CAFE rules. There is no specific deadline for determining these standards.

Lighting (Sections 321, 322, and 324)

Perhaps the most noticeable effects of EISA will be in lighting. For the first time, energy-efficiency standards will address general service incandescent lamps, known to most of us as ordinary lightbulbs. EISA also sets new standards for incandescent reflector lamps and metal halide lamp fixtures.

General service incandescent lamps. EISA will require efficiency increases on the order of 25 to 30 percent starting in 2012 for standard-shape, medium-base (“A-line”) lightbulbs. The EISA standards are expressed in terms of the maximum wattage that can be used to produce light output within a specified lumen range. **Table 1** shows the new requirements, which will be phased in over two years. Bulbs that do not meet the standards cannot be manufactured or imported after the effective dates. Several types of special-purpose bulbs are exempt—for example, appliance bulbs and those designed for “rough service” environments—but sales of some types that could be substituted for standard bulbs will be monitored, and if sales substantially increase, restrictions could be imposed on them as well.

Because currently available incandescents cannot meet the standards, these rules have been widely characterized as banning the lightbulb as we know it in favor of energy-efficient compact fluorescent lamps (CFLs). Technically the standard is not a ban because it is based on performance levels and does not specify design or materials. A summary of EISA by the lamp manufacturer Osram Sylvania says it means general service incandescents will be “phased out,”⁵ but in a similar summary, General Electric says it is developing high-efficiency incandescents that will meet the new standards.⁶ Halogen bulbs with special coatings and light-emitting diode (LED) lamps are other replacement possibilities.⁷

Table 1: EISA standards for general service incandescent lamps

EISA sets maximum wattage levels allowed to achieve a given range of lighting output. Beginning in 2012, bulbs with lumen levels comparable to today’s 100-watt bulbs will be limited to 72 watts or less.

Lumen range ^a	Pre-EISA typical wattage ^b	EISA standards		
		Maximum wattage	Minimum life (hours)	Effective date ^c
1,490–2,600	100	72	1,000	January 1, 2012
1,050–1,489	75	53	1,000	January 1, 2013
750–1,049	60	43	1,000	January 1, 2014
310–749	40	29	1,000	January 1, 2014

Notes: EISA = Energy Independence and Security Act of 2007.

a. Reduced by 25 percent for modified spectrum lamps such as General Electric’s “Reveal” and Osram Sylvania’s “Daylight” product lines.

b. Data from General Electric Company.

c. California and Nevada can adopt standards one year earlier. All other states are preempted from creating their own standards.

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The standards won't stay put after 2014. In that year, the DOE is required to initiate a rulemaking process to consider whether the standards for *all* general service lamps—not just incandescents but also CFLs and others—should be made more rigorous. The rulemaking is required to establish standards that will yield savings at least as great as a uniform standard of 45 lumens per watt; if it fails to do so, all general service lamps will be subject to a 45 lumens per watt requirement in 2020. That's a big jump: For comparison, the 2014 standard for incandescents equivalent to today's 60-watt bulbs will allow sales of bulbs producing as few as 17.4 lumens per watt.

Incandescent reflector lamps. Incandescent reflector lamps, commonly known as “floodlights” and “spotlights,” have been subject to federal energy-efficiency standards since 1992, but not all types were covered. Since 2006, nine states and the District of Columbia have adopted their own standards for certain incandescent reflectors that were not addressed by the federal regulations. EISA has adopted those stricter state standards as the uniform national standard, effective no later than June 16, 2008 (180 days after EISA was enacted).

The new standard effectively removes some common reflector lamps from the market, although sales can continue as long as inventories last. Analysis by the Lighting Controls Association notes that proven substitutes, including CFLs and halogen reflectors, are available for the eliminated lamps, and the major manufacturers have published tables of recommended substitutions.⁸

Metal halide lamp fixtures. Metal halide lighting is typically used to light parking lots, highways, and industrial facilities. As it does for incandescent fixtures, EISA adopts certain efficiency requirements for metal halide lamp fixtures that have already been adopted by some states. The rule takes effect January 1, 2009, and specifies the minimum efficiency of the ballasts that are contained within the fixtures. The rule does not apply to ballasts sold separately, which means that failed ballasts could be replaced in existing fixtures with ballasts that are less efficient than the new standard.⁹

Electric Motors (Section 313)

EISA updates the energy-efficiency standard for electric motors of 1 to 200 horsepower. This class of motors has been regulated since the Energy Policy Act of 1992. One result of the old standard was the creation of the National Electrical Manufacturers Association's (NEMA's) “NEMA Premium” voluntary labeling program for motors that exceeded the standard.¹⁰ Many utilities used the NEMA Premium specification as an eligibility requirement for energy-efficiency incentives. EISA now incorporates the NEMA Premium standard into federal law as of December 19, 2010 (three years after enactment). In addition, the act extends efficiency standards to larger motors (200 to 500 horsepower) and applies standards to certain types of motors that were not previously regulated. Finally, EISA extends the standards to cover motors that are provided as a component of another piece of equipment; previously, original equipment manufacturer-supplied motors were not covered.¹¹

Small Commercial Air Conditioners and Heat Pumps (Section 314)

EISA adopts ASHRAE (American Society of Heating, Refrigerating, and Air-Conditioning Engineers) energy-efficiency standards for certain small commercial air conditioners and heat pumps—specifically, air-cooled, three-phase systems under 65,000 Btu per hour in capacity—and for “single package vertical air conditioners and heat pumps,” an equipment type typically used in hotels and motels. The new standard took effect on June 19, 2008 (180 days after enactment) and is scheduled to increase on January 1, 2010.

Walk-in Coolers and Freezers (Section 312)

EISA creates standards for commercial walk-in coolers and freezers. Products designed and marketed exclusively for medical, scientific, or research purposes are excluded from the rule. As of January 1, 2009, these units must have automatic door closers and meet several other design requirements pertaining to insulation levels, motors, interior lighting, glass doors, and antisweat heaters. These requirements are based on state standards established in California, Maryland, and Rhode Island. By January 1, 2012, the DOE is required to publish performance standards for this equipment category.

TECHNOLOGY-SPECIFIC FUNDING IN EISA

Advanced vehicles, energy storage devices, and LED lighting are among the technologies to which EISA targets funding for research, development, and demonstration.

EISA authorizes funding for research, development, and demonstration of several types of technologies. Because authorization is not equivalent to appropriation, actual funding for these technologies is not assured. In this section we briefly highlight what is envisioned in EISA for technologies likely to be of interest to large commercial, industrial, and institutional energy consumers.

Energy-efficient vehicles. Several parts of EISA call for substantial support of plug-in hybrids, advanced batteries for electric vehicles, and related technologies. The DOE is authorized to create a program of competitive grants to state and local governments, nonprofits, and businesses, funded at \$90 million per year through 2012, to encourage the use of plug-in hybrid vehicles or other emerging electric vehicle technologies (Section 131). Loan guarantees are authorized for facilities to produce advanced vehicle batteries, fuel-efficient vehicles, and components (Sections 134 and 135), and up to \$25 billion is authorized for loans to advanced vehicle manufacturers (Section 136).

Electric energy storage. The DOE is directed to carry out research, development, and demonstration projects in support of energy storage for electric-drive vehicles, stationary applications, and electricity transmission and distribution. Up to \$295 million per year for 10 years is authorized for these activities (Section 641).

Thermal energy storage. The DOE is directed to establish a research and development program on thermal energy storage technologies for purposes of electric load shifting and also to enhance the operation of concentrating solar power electric generating plants. A total of \$43 million is authorized through 2012 (Section 602).

Hydrogen energy technologies. The DOE is directed to create a program of competitive cash awards to spur research, development, demonstration, and commercial application of hydrogen energy technologies. The “H-Prize” competition will offer prizes in several categories, including hydrogen-powered vehicles; up to \$50 million is authorized through 2017 (Section 654).

Solid-state lighting. The DOE is directed to establish “Bright Tomorrow Lighting Prizes” to stimulate development of solid-state lighting, also known as LED lighting. Specific awards are designated for a 60-watt incandescent replacement lamp; a PAR-38 halogen reflector replacement lamp; and a “twenty-first century lamp” that yields more than 150 lumens per watt while meeting other criteria for lumen output, color rendering, color temperature, and operating lifetime (Section 655). A web site has been established for these prizes: www.lightingprize.org.

Smart Grid. EISA includes several provisions to advance concepts in electric transmission, distribution, and end-use technologies that collectively characterize a “Smart Grid.” In addition to authorizing \$100 million per year through 2012 for Smart Grid demonstration projects (Section 1304), EISA authorizes a matching grant program to reimburse up to 20 percent of qualifying investments, including investments by manufacturers or end users to add Smart Grid functionality to equipment (Section 1306).

NEW PROGRAM INITIATIVES IN EISA

EISA authorizes the DOE and other agencies of the government to initiate a long list of programs that could advance energy efficiency among large commercial, industrial, and other significant energy users.

Under EISA, federal agencies are authorized to create programs that will encourage such energy-efficiency advances as high-performance buildings; waste energy recovery; and a variety of outreach, information, and incentive initiatives targeted at large commercial, industrial, and other significant energy users.

High-performance buildings. EISA establishes an “Office of Commercial High-Performance Green Buildings” within the DOE to coordinate government activities in this area, including establishment of an information clearinghouse (Section 421). One activity specified in EISA is a “Zero-Net-Energy Commercial Buildings Initiative.” The law defines a zero-net-energy building as one that is designed, constructed, and operated to use a “greatly reduced quantity of energy” and to cause no net emissions of greenhouse gases. The initiative is intended to achieve zero-net-energy performance in all newly constructed commercial buildings by 2030, in 50 percent of the commercial building stock by 2040, and in all commercial buildings by 2050 (Section 422). Demonstration projects that contribute to the research goals of the high-performance-building program are authorized. These will include six projects in federal buildings and four competitively selected projects at universities (Section 491).

Waste energy recovery. EISA directs the U.S. Environmental Protection Agency (EPA) to establish a “recoverable waste energy inventory program” to support waste energy recovery, including development of combined heat and power (CHP). Specifically, the EPA is directed to survey all major commercial and industrial combustion sources to

determine the quantity and quality of waste energy they produce and to create a public registry of sites where waste energy recovery is economically feasible, based on a five-year payback. Once a site is included in the registry, the DOE is directed to provide, upon request from the owner or operator, technical support and partial funding for feasibility studies to validate the site's potential (Section 451).

In addition, EISA establishes an incentive grant program within the DOE for owners and operators of waste energy sites, for utilities that purchase or distribute electricity generated from waste energy, and for states where 80 percent or more of the identified waste energy recovery opportunities are exploited (Section 451).

Clean Energy Application Centers. The DOE's previously established "Combined Heat and Power Application Centers" are renamed "Clean Energy Application Centers," and \$10 million per year through 2012 is authorized for eight centers to provide outreach, education, and technical assistance to building and industrial professionals and end users (Section 451).

Energy-intensive industries program. EISA directs the DOE to establish an energy-efficiency program in cooperation with energy-intensive industries and their trade associations. Several energy-intensive industries are specified: materials manufacturing of various types (for example, steel, aluminum, and chemicals); consumer product manufacturing; food processing; and the information technology industry, including data centers. The DOE is to establish cost-sharing partnerships for research, development, and demonstration activities with these industries and may also award competitive grants. About \$200 million annually is authorized for this program through 2012 (Section 452).

Data centers. Although data centers are included in the program for energy-intensive industries, EISA also includes a special section addressing these facilities. The DOE and the EPA are directed jointly to establish a voluntary national information program that will produce "specifications, measurements, best practices, and benchmarks" aimed at helping data center operators make better-informed decisions about energy efficiency (Section 453).

Green jobs. EISA directs the U.S. Department of Labor to establish, in consultation with the DOE, a program for training workers in the energy-efficiency and renewable energy fields. Training will prepare participants for green jobs in one of the following eligible industries:

- Energy-efficient building, construction, and retrofits
- Renewable electric power
- Energy-efficient vehicles
- Biofuels
- Deconstruction and materials use
- Energy-efficiency assessment
- Sustainable products manufacturing

EISA authorizes \$125 million per year for this program (Section 1002).

Grants and loans for institutions. EISA establishes a program of grants and loans to promote energy efficiency and sustainability in local governments, public schools, colleges, and universities. Renewable energy projects, CHP systems, and other investments in sustainable and efficient infrastructure are eligible. The act authorizes \$250 million per year for grants and \$500 million per year for loans through 2013 (Section 471).

ENERGY EFFICIENCY IN FEDERAL FACILITIES

EISA aims to make the federal government a model of energy efficiency and sustainability.

EISA includes several energy-efficiency goals and mandates that apply only to federal government agencies. Although these provisions do not apply directly to private organizations or state and local governments, they may indirectly affect the pace of energy-efficiency improvements outside the federal government by stimulating a greater supply of energy-efficient commercial space and by expanding the market for efficiency-oriented building services. Key elements of the federal initiatives include the following.

GSA-leased buildings. EISA directs the General Services Administration (GSA) to set minimum standards for energy efficiency and renewable energy and to take energy performance into account in evaluating leases. The GSA is also required to use energy-efficient lighting to the maximum extent feasible in buildings it constructs, alters, or acquires (Section 323).

Energy Star buildings. Effective December 19, 2010 (three years after the enactment of EISA), federal agencies are generally required to lease space in buildings that have earned an Energy Star label in the previous year. Various exceptions to this rule are spelled out, including an exception allowing agencies to remain in previously occupied buildings that are not Energy Star labeled (Section 435).

Energy-reduction goals for federal buildings. EISA accelerates energy-reduction goals for federal buildings that were previously written into federal law, directing agencies to achieve 3 percent annual energy reductions in each year from 2008 through 2015, for an overall reduction of 30 percent relative to the baseline year of 2003 (Section 431). An equivalent requirement had previously been established by a presidential executive order.¹²

Fossil fuel reduction goals. EISA directs that as of 2010, new federal buildings and those undergoing major renovations should be designed to use 55 percent less fossil fuel energy, as compared to a similar building in 2003, unless doing so is determined to be technically impractical. The required percentage reduction increases every five years, reaching 100 percent in 2030 (Section 433).

Solar water heating. EISA requires that solar water heaters be used to meet at least 30 percent of the hot water demand in new federal facilities or those undergoing major renovation, provided that the solar systems are cost-effective on a life-cycle basis (Section 523).

Energy audits, energy managers, and web-based building tracking. EISA requires federal agencies to identify facilities that are responsible for at least 75 percent of their energy use, to assign energy managers to those facilities, and to conduct comprehensive energy evaluations (audits) on affected buildings on a four-year cycle. The evaluations shall

include identification and assessment of recommissioning or retrocommissioning measures. The DOE is directed to develop and deploy a web-based system for tracking the performance of affected buildings and the costs and savings associated with energy-efficiency improvements; the tracking system must be available to Congress, other agencies, and the public (Section 432).

Energy savings performance contracting. EISA permanently authorizes federal agencies' use of energy savings performance contracting, an approach to obtaining energy-efficiency improvements with minimal up-front cost and risk (Section 514). Agencies are granted more flexibility to combine appropriated funds with performance contracts (Section 512), and the permissible scope of performance contracts is expanded to include heat recovery, cogeneration, renewable energy generation, and water efficiency (Section 515).

REGULATORY POLICIES PROMOTING UTILITY ENERGY-EFFICIENCY PROGRAMS

EISA envisions changes to utility regulation at the state level that will support utility energy-efficiency programs.

EISA amends the Public Utility Regulatory Policies Act of 1978, adding language encouraging state-level utility regulators and nonregulated utilities (that is, most municipal and cooperative utilities) to adopt policies that will promote fuller use of energy-efficiency programs as utility resources.

Policy recommendations. First, EISA suggests that utilities integrate energy-efficiency resources into their planning processes and make energy efficiency a high-priority resource. Second, EISA suggests that rate designs promote energy efficiency and align utility incentives with the delivery of cost-effective energy-efficiency programs (Section 532).

Suggested mechanisms. State regulators and nonregulated utilities are directed to consider a variety of mechanisms to encourage utility energy-efficiency programs, including:

- Removing the financial incentive for utilities to encourage greater throughput of electricity or gas
- Providing financial incentives for successful management of energy-efficiency programs
- Adopting rate designs that encourage energy efficiency for each customer class (Section 532)

Though not binding, these recommendations are intended to promote revenue decoupling and other alternative regulatory approaches intended to encourage expansion of utility energy-efficiency programs.¹³

OTHER RESOURCES FOR LEARNING ABOUT EISA

Turn to the web for further details on EISA's provisions.

Readers may wish to consult one of the more detailed summaries and analyses of EISA that have been published by government agencies, energy advocacy organizations, and

industry groups. Follow these links to obtain helpful EISA-related documents:

- Congressional Research Service (research arm of the U.S. Congress),
http://energy.senate.gov/public/_files/RL342941.pdf
- Alliance to Save Energy, www.ase.org/files/4172_file_energy_bill_2007_summary.pdf
- American Council for an Energy-Efficient Economy,
<http://aceee.org/energy/national/07nrgleg.htm>
- Edison Electric Institute (trade association for investor-owned electric utilities),
www.eei.org/industry_issues/electricity_policy/federal_legislation
- NEMA (trade association for the electrical manufacturing industry),
www.nema.org/gov/energy/Energy-Legislation.cfm

Significant DOE activities in support of the mandates in EISA will likely be announced on the Press Release page of the DOE web site, http://energy.gov/news/press_releases.htm.

NOTES

- 1 Alliance to Save Energy (ASE), “Alliance to Save Energy Hails Enactment of ‘Most Significant Energy-Saving Law in Three Decades,’” press release (December 18, 2007), www.ase.org/content/news/detail/4141.
- 2 American Council for an Energy-Efficient Economy, “Senate Energy Bill Will Save Consumers and Businesses at Least \$400 Billion,” press release (December 14, 2007), www.aceee.org/press/0712energy-bill-2.htm.
- 3 ASE, “FY 2009 Federal Energy Efficiency Programs Funding,” www.ase.org/content/article/detail/3974 (accessed September 2008).
- 4 U.S. Department of Transportation, “Secretary Peters Proposes 25 Percent Increase in Fuel Efficiency Standards over 5 Years for Passenger Vehicles, Light Trucks,” press release (April 22, 2008), www.dot.gov/affairs/dot5608.htm.
- 5 Osram Sylvania, “Osram Sylvania Summary of the Energy Independence and Security Act of 2007” (January 2008), <http://content.sylvania.com/app/display.aspx?id=003696063>.
- 6 GE Consumer and Industrial Environmental Information Center, “2007 Energy Independence and Security Act,” www.geconsumerandindustrial.com/environmentalinfo/regulations_resources/2007_energy_independence_security_act.htm (accessed September 2008).
- 7 Osram Sylvania [5].
- 8 Craig DiLouie, “Energy Act Outlaws Many Incandescent Reflector Lamps” (June 2008), www.aboutlightingcontrols.org/education/papers/2008_reflectorlamps.shtml.
- 9 Craig DiLouie, “New Energy Law to Phase Out Today’s Common Incandescent Lamps, Probe-Start Metal Halide Magnetic Ballasted Fixtures” (March 2008), www.aboutlightingcontrols.org/education/papers/2008_energy_law.shtml.
- 10 R. Neal Elliott, “Impact of Proposed Increases to Motor Efficiency Performance Standards, Proposed Federal Motor Tax Incentives and Suggested New Directions Forward” (October 2007), <http://aceee.org/pubs/ie073.htm>.
- 11 U.S. Department of Energy, “The 2007 Energy Act: Good News for Motors Users,” *Energy Matters* (Summer 2008), www.eere.energy.gov/industry/bestpractices/energymatters/articles.cfm/article_id=282.
- 12 Executive Order 13423, “Strengthening Federal Environmental, Energy, and Transportation Management” (January 2007), www.whitehouse.gov/omb/procurement/green/eo13423.pdf.
- 13 For an explanation of revenue decoupling and other regulatory approaches to fostering utility energy-efficiency programs, see National Action Plan for Energy Efficiency, “Aligning Utility Incentives with Investment in Energy Efficiency” (November 2007), www.epa.gov/cleanenergy/documents/incentives.pdf.