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Let's Be Number One: Improving Iowa's Utility-Run Energy Efficiency Programs

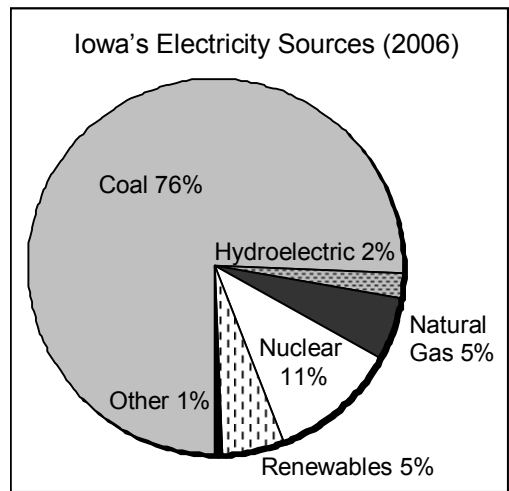
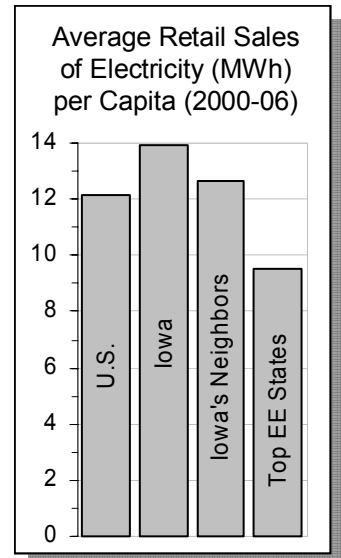
By Andrew Johnson and Teresa Galluzzo

Electricity is such an integral part of our lives that we may rarely give a thought to the number of things we plug in and turn on each day. Now, however, thinking about our electricity use is vital. Our spiraling consumption of energy from fossil fuel sources is seriously affecting our climate and our pocketbooks.

This report describes Iowa's electrical consumption and production and focuses on the role energy efficiency (EE) can and must play in Iowa's future. It describes Iowa's laudable efforts to invest in EE through utility-run programs and make suggestions for how to effectively carry these efforts further.

Iowa's Electricity Consumption

Iowa's electricity sales per capita are higher than the nation's, our neighboring states, and states that are leaders in EE. Without aggressive action, this will likely remain the case, because our consumption has also been growing faster than each of these other groups of states. From 2000 to 2006, Iowa's retail sales of electricity increased by an average of 1.5 percent. The nation's average growth was 0.2 percent, Iowa's neighboring states averaged 1.2 percent, and leading EE states averaged 0.3 percent.



Iowa's Electricity Production

Coal is Iowa's primary source of electricity generation. In 2006, more than 75 percent of Iowa's electricity was generated from burning coal. Iowa is considerably more dependent on coal than the rest of the nation; the national average was 49 percent. In recent years Iowa has diversified its power sources. Although still a small portion of our electricity production, renewable sources have been a major growth spot in our generation mix.

The Role of Energy Efficiency at the State Level

Iowa's electricity demand is forecasted to continue increasing. But the realities of fossil fuel costs and climate change mean Iowa needs to reduce its electricity use from fossil fuel sources. Expanding our EE investments can have large, nearly immediate and economically beneficial impacts.

Iowa was an early leader in EE. In 1990 Iowa passed a landmark law requiring the state's investor-owned utilities (IOUs) to offer EE programs for all types of customers: residential, commercial and industrial. The law also requires Iowa's municipal electric utilities (Munis) and rural electric

cooperatives (RECs) to offer EE programs to their customers, but these programs do not have to be reviewed or approved. In 2006, the IOUs' programs yielded a 0.8 percent retail energy savings, the Munis saved 0.15 percent and the RECs saved 0.6 percent.

	EE Spending	EE Spending as % of Revenue	MWh Saved from EE	EE Savings as % of Retail Sales
Investor-Owned	\$75,466,606	3.4%	274,975	0.80%
Municipals	\$3,420,358	1.0%	8,355	0.15%
RECs	\$11,691,595	2.7%	31,921	0.60%

Iowa's long tradition of EE is a significant and proud accomplishment. However, Iowa is not meeting some of its stated efficiency goals. The 2001 Energy Policy Task Force convened by then-Governor Tom Vilsack, had the goal of meeting all of Iowa's future energy demand by increasing EE rather than increasing supply. More recently Governor Culver signed the Energy Security and Climate Stewardship Platform, calling for meeting at least 2 percent of annual retail sales of natural gas and electricity through EE improvements by 2015 and an additional 2 percent annual savings thereafter. Similarly, the legislatively appointed 2007 Energy Efficiency Study Committee suggested increasing annual energy savings to 1.5 percent of retail sales by 2012.

Due to recent lack of federal action on EE, states across the nation are increasing their EE efforts. Overall, states are spending about three times as much as the federal government on efficiency programs. Some of Iowa's neighboring states in particular have become leaders, outpacing our efforts. Minnesota, which has an electrical system similar to Iowa's, not only spends more than Iowa on efficiency efforts per capita, but in 2006 Governor Tim Pawlenty called for 1.5 percent per year savings of electric sales, 1 percent of which must come from EE.

Given Iowa's yet unmet efficiency goals and the fact that states are increasing their efforts and providing us with examples of big EE accomplishments, Iowa needs to seize this opportunity to become an even more energy efficient state. To do this, we must first address shortcomings in our existing programs.

Shortcomings in Iowa's Utility-Based EE Efforts

- *Programs are Confusing, Inconsistent and Not Universally Available*

Each of Iowa's 183 electric utilities runs its own EE programs with a separate set of offerings. As a result, Iowa's EE effort is sorely lacking in comprehensiveness. Many of the EE measures with the greatest potential for savings are unavailable to many Iowans. If available, utilities' energy audits are not comprehensive or standard. Financial assistance and advice is generally available only for efficiency upgrades that pertain to the type of energy provided by the utility. For example, gas utilities do not provide compact fluorescent light bulbs.

- *Utilities' Duplication of Program Administration Costs Money*

Each of Iowa's utilities is charged with developing, promoting, administering and evaluating its own EE programs. There is significant duplication of effort, and therefore a great deal of potential cost savings. Iowa's two electric IOUs spent an average of 27 percent of their total efficiency spending on costs other than EE incentives. More than 50 percent of Munis' and RECs' spending was not for incentives.

- *Utilities Do Not Have Incentive to Push EE*

There is an inherent conflict of interest when a utility is required to encourage its customers to buy less electricity (and hence reduce revenue), and yet is also expected to lead in developing innovative and increasingly effective ways to maximize those lost sales. This fundamental conflict has caused many states to take different approaches to the administration of state-level EE programs such as third-party private or public administration or a regional administration. Others have rewarded utilities for meeting higher EE goals.

- *Utilities and State Policy Fail to Prioritize EE*

Traditionally, growing electricity demand has been met through increasing supply. Recently, some states have turned to demand-side management to offset demand growth. These states have begun to think of EE as a resource and planned for acquiring efficiency rather than generation. Iowa's utilities do not treat EE as a resource on par with supply resources. Iowa does not have a statewide EE resource standard nor a requirement that utilities take advantage of cost-effective EE potential. And there is no requirement that Iowa utilities first acquire efficiency potential before pursuing supply-side resources to meet future power demands.

- *Misplaced Emphasis on Peak Load Management*

Load management is designed to reduce peak load use during the few times when energy demand is high and delivery system reliability is in jeopardy. In 2006, Iowa IOUs spent over \$35 million on electric load management, significantly more than any of the other 20 states that implement load management. Load management is an important component of utility planning efforts, and effective programs save both utility and ratepayer dollars. However, load management likely fails to reduce overall energy use or greenhouse gas emissions, and can actually increase both. It also seriously bloats our efficiency spending per capita, ballooning the overall size/cost of the program and making it difficult to place reasonable expectations on improvement and growth in the true efficiency programs. Whereas load response provides economic savings but little, if any, energy savings, EE can provide both quite effectively.

The deficiencies in these programs are reflected in the smaller amount of EE savings Iowa has achieved compared to leading states. In 2000 and 2001 top EE states were achieving electrical EE savings of 0.7 percent to 2 percent of retail sales. During the same period Iowa achieved 0.4 percent annual savings. In recent years, increased spending has brought Iowa's IOUs savings up substantially to 0.8 percent. However, other states are now aggressively moving toward 1.5 percent to 2 percent annual savings.

Recommendations

Iowa has the potential to move beyond these shortcomings, and more efficiently invest in its EE programs so that our state realizes its true efficiency potential. Other states across the country, including our neighbors are making big strides and Iowa should too.

Other states' experiences demonstrate that greatest progress in statewide efficiency programs come with some form of third-party administration. We recommend the current rate surcharge be replaced by a uniform public benefits charge on all ratepayers, and the bulk of the resulting public benefits fund be used to establish a third-party, comprehensive, statewide energy efficiency program.

We recommend directing a percentage (starting at 10 percent and rising over time) of the public benefits fund towards a coordinated, guided matching grant program for local (countywide) EE initiatives to

harness the power of local creativity, community pride, economic self-interest and personal responsibility.

In addition, we recommend Iowa's leaders think boldly and establish policies that meet the following principles:

- *Align EE, renewable energy and greenhouse gas reduction goals with utility financial interests through legislative and administrative actions.*
- *Provide universal and comprehensive EE and renewable energy programs and services to all Iowa residents through a public benefits fund created from sales on all energy sources.*
- *Treat EE as a resource in an integrated resource planning process, establish aggressive EE and renewable energy standards, and require all cost-effective EE and renewable energy be acquired prior to new fossil fuel generation.*
- *Set aggressive greenhouse gas reduction goals, and incorporate them into all energy-related planning and programs, including peak load management programs and the prioritization and cost-benefit analyses for statewide EE.*
- *Ensure just and fair policy effects and implementation across the economic spectrum.*

The Iowa Policy Project

For the full report, see
www.iowapolicyproject.org

The Iowa Policy Project was founded in 2001 to promote public policy that fosters economic opportunity while safeguarding the health and well-being of Iowa's people and the environment. By providing a foundation of fact-based, objective research and engaging the public in an informed discussion of policy alternatives, IPP advances accountable, effective and fair government.

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