

Section 9.1 Policy and Program Recommendations

- 1. The State of Kansas should adopt a goal of increasing energy efficiency such that the rate of growth in electricity peak demand and total energy is 50% less than it would have been absent the energy efficiency initiative.**

Note: This recommendation is also listed in Sections 9.2, 9.3, and 9.4.

Description

According to projections released in December 2008 by the Energy Information Administration, U.S. electricity consumption is projected to grow at an average rate of 1.0 percent annually. This demand growth is much slower than the 2.4 percent annual growth seen in the 1990's and consistent with the trend since 2000, likely reflecting responses to higher prices, increased efficiency standards, and improved efficiency.¹

In 2006, Kansas utilities generated 45.5 million megawatthours (MWh) of electricity, in response to total annual retail demand of 39.7 million MWh.² Demand for electricity in Kansas is projected to grow at an average rate of roughly 1.5% to 2% annually for the next 20 years,³ although these numbers are likely to be revised downward due to the current national (and global) economic downturn.⁴

Reducing energy consumption through conservation and improved efficiency could result in downward pressure on all energy-related prices, deferral of energy-related investments in new power plants and extraction equipment, reduction in health and environmental costs related to the energy-related emission of pollutants and greenhouse gases. Moreover, energy conservation efforts by individual consumers can result in lower monthly utility bills.

There is little doubt that Kansans have opportunities for cost-effective energy conservation and efficiency improvements that will reduce their electricity usage (as well as natural gas consumption). Many existing buildings are poorly insulated or have inefficient heating and cooling systems, resulting in excessive energy use and, consequently, excessive energy bills year round. Cost-effective energy conservation measures—such as upgrading attic insulation to at least R-38 or installing an Energy Star qualified furnace—may reduce energy usage by as much as 20 percent,⁵ while providing dollar savings as well.

¹ EIA, 2008, Annual Energy Outlook 2009, Early Release Summary Presentation, Slide 13, linked to: <http://www.eia.doe.gov/oiaf/aeo/index.html> (accessed December 19, 2008).

² EIA, 2007, Kansas Electricity Profile: Table 1, 2006 Summary Statistics (Kansas): http://www.eia.doe.gov/cneaf/electricity/st_profiles/kansas.html

³ Based on preliminary data compiled by KEC staff for forecast load and capacity summaries. Finalized versions will be posted on the web site in coming months. According to the EIA, overall U.S. demand is expected to increase 1.1% annually: Annual Energy Outlook with Projections to 2030: <http://www.eia.doe.gov/oiaf/aeo/electricity.html> (accessed September 2008).

⁴ According to the National Bureau of Economic Research, the U.S. economy has been in recession since December 2007; this official announcement came on December 1, 2008.

⁵ U.S. Environmental Protection Agency and U.S. Dept. of Energy, 2007, Energy Star web site:

http://www.energystar.gov/index.cfm?c=heat_cool_pr_hvac and

http://www.energystar.gov/index.cfm?c=home_sealing_hm_improvement_sealing (accessed October 23, 2006).

An oft-cited approach to increasing the adoption of energy conservation and efficiency measures is through utility-sponsored programs—commonly referred to as energy efficiency (EE) programs or demand-side management (DSM) programs. Such programs first appeared in the late 1970s and saw increasing popularity through the 1980s. Utility and ratepayer spending on EE programs peaked at \$2.74 billion in 1993 and then declined,⁶ coinciding with a decline in political popularity of these programs.

Recommended Actions

a. Responsible parties

Governor, Legislature, KCC. The Governor and Legislature should reference goal as part of State initiatives to reduce electricity usage.

b. Legislative action

Legislature should reference goal in bills aimed to improve conservation and efficiency in the electricity sector.

c. Budget requirements

No additional funding required.

d. Implementation timeline

Goal should be referenced following the delivery of the *Kansas Energy Report 2009* in January 2009.

Implications of Proposal

a. Pros

- i. May increase public and private sector initiatives to reduce usage of electricity during times of peak demand.
- ii. May increase public and private sector efforts to reduce overall electricity consumption.
- iii. Provides consistent statewide goal, against which electricity growth rates can be measured.

b. Cons

- i. Goal may be viewed as not sufficiently ambitious (or as overly ambitious).

⁶ American Council for an Energy Efficiency Economy (ACEEE), 2000, State Scorecard on Utility Energy Efficiency Programs, by Steven Nadel, Tor Kubo, and Howard Geller: <http://www.aceee.org/pubs/u004.htm> (accessed November 2007).