

Illinois Climate Change Advisory Group

7/3/2007

Subgroup: Power/Energy

Policy Name: #42 Energy conservation and efficiency programs for existing state facilities

Policy Type: Mandate to state government

Estimated 2020 Reductions Compared to BAU: 330,000 metric tons CO2

Affected sectors, subsectors or entities

State agencies, universities, and colleges

Description

This is a Zero Net cost to taxpayers policy proposal.

Adopt a goal of a 20% reduction in energy use from existing state facilities by 2020.

This goal could be achieved through a combination of the state's capital program and energy performance contracts of 10-20 years in length.

Background: Environment Illinois's Report, "A Blueprint for Action: Policy Option to reduce Illinois' Contribution to Global Warming", recommends that state government achieve a 20 percent reduction in energy used in state facilities by 2020. HB 1384 (Krause) would require all executive branch state agencies to reduce energy use by 10% within 10 years. It passed both houses unanimously.

Rough estimate of reductions from BAU in 2020

State agency and university buildings currently emit approximately 1.6 million metric tons of carbon dioxide, based on the energy consumption reported in "Illinois State Building Energy Expense Study FY06 and Projected FY 07-09", DCEO, March 2007. Therefore, reducing energy use by 20% would achieve emission reductions of **330,000 metric tons** of CO2 per year below business-as-usual.

	Square Feet (millions)	Electricity (million kWh)	Natural Gas (million therms)	Coal (1,000 tons)	Fuel Oil (1,000 gal.)	CO2 Emissions (metric tons)	CO2 Reduction (metric tons)
Universities	39	739	51	110	479	837,705	(167,541)
State Agencies	49	1075	34	62	879	808,281	(161,656)
Total State Buildings	88	1814	85	172	1358	1,645,985	(329,197)

Timetables, duration and stringency

If the state depends on its capital budget to achieve this goal, the program would have to be phased in slowly, while if the state were to use energy performance contracting it could implement the program more quickly.

Barriers to implementation

There are no technological barriers to achieving a 20% reduction in energy use in state buildings. There are some financial and legal barriers. While the potential operating cost savings are significant, the up front capital requirements could be high, if energy performance contracting (EPC) is not used to achieve a significant portion of the energy savings. Currently, universities and colleges can enter into performance contracts up to 20 years in length, while state agencies and local governments are limited to 10-year contracts. The statute should be changed to allow 20 years for all units of state and local government to facilitate EPC.

Interstate Cooperation

Many other states have set goals for reductions in energy use from state facilities. The State of Oklahoma recently adopted a goal of reducing energy use in state buildings by 30% by 2020.