1st Draft

Renewable Energy Requirement

The proposed amendment to the Colorado Revised Statutes:

- requires large Colorado utilities to generate a portion of their electric power from renewable energy resources beginning in 2007;
- defines renewable energy resources;
- limits the amount that an average residential electricity bill can increase as a result of this requirement to 50 cents a month;
- provides financial incentives to customers and utilities to invest in renewable energy; and
- allows a utility to hold an election to exempt or include itself in the renewable energy requirement.

Background

Colorado is served by 60 utilities that generate electricity using primarily coal, natural gas, and hydroelectric power. Colorado does not currently have a renewable energy requirement, and renewable sources account for roughly 2 percent of electricity generated. To date, 16 other states have adopted renewable energy requirements, gradually phasing in over the next decade. The maximum renewable energy requirements vary from state to state, ranging from 1.1 percent of the total electricity generated in Arizona to 30 percent in Maine.

This proposal requires large Colorado utilities to generate a percentage of their electricity from renewable resources according to the following schedule:

- 3 percent from 2007 through 2010;
- 6 percent from 2011through 2014; and
- 10 percent by 2015 and thereafter.

At least 4 percent of the electricity generated from renewable sources must come from solar technologies. Seven utilities in Colorado would be immediately affected by the new requirement.

Sources of renewable energy. Renewable energy sources under the proposal are wind turbines; solar collector panels on residences and businesses or solar power plants; geothermal heat, such as underground reservoirs of steam or hot water; biomass facilities that burn nontoxic plants, methane from landfills, or animal waste; small hydroelectric power stations; and hydrogen fuel cells.

Financial incentives. Under the proposal, utility customers may earn a rebate by installing solar electric generation equipment on their property. Any electricity generated from the solar equipment in excess of the customer's annual use may be sold back to the utility. In addition, utilities may earn extra profit from their investment in renewable energy technologies that provide an economic benefit to their customers.

Procedure for exemption and inclusion. All affected utilities are allowed to hold elections to exempt themselves from the renewable energy requirement. Similarly, utilities not subject to the requirement may hold elections to be included. A majority of at least 25 percent of the utility's customers must vote for such exemption or inclusion.

Arguments For

1) Renewable energy is unlimited, unlike coal and natural gas, and provides a cleaner alternative to the traditional fuels. Electricity generated from renewable sources is free of the harmful environmental impacts of coal and natural gas. Coal-fired power plants emit air pollutants that damage Colorado's air quality and the health of it's citizens. In addition, the mining and drilling for coal and natural gas damage the landscape. Coal-fired plants consume large amounts of water, and drilling for natural gas has contaminated water supplies in some areas of Colorado. Reducing Colorado's dependence on coal and natural gas will help to conserve and protect the environment.

2) Renewable resources have become more affordable in recent years, yet less than 2 percent of Colorado's electricity is currently generated from renewable sources. Wind power is now the least expensive source of new energy available. Increasing the use of renewable energy sources will protect Colorado from unpredictable fuel costs. Generating a greater percentage of electricity from renewable resources contributes to energy diversity and reduces Colorado's vulnerability to fluctuations in natural gas prices.

3) Renewable energy facilities are typically located in rural areas, and therefore will economically benefit these areas of the state. Jobs will be created to build and maintain renewable energy facilities. Farmers and ranchers could tap into a new source of income by leasing their land for wind facilities. In addition, renewable energy facilities could provide tax revenues that can be used to pay for local services.

Arguments Against

1) Colorado utilities are already using renewable energy resources. This proposal requires Colorado's largest utilities to generate specified amounts of electricity from renewable resources, regardless of cost. The proposal requires at least 4 percent of renewable energy to come from solar sources, the most expensive renewable energy source. Currently, utilities generate electricity based on which resources are the least expensive. The cost of generating electricity from renewable resources is higher than the cost of generating electricity from traditional fuels.

2) It will be expensive for large utilities to convert from conventional energy resources to renewable energy resources. The utilities may have to pass these additional costs on to customers, creating higher electricity prices. While the proposal caps the amount that an average residential electricity bill can increase as a result of the renewable energy requirement to 50 cents a month, it provides no such protection for non-residential customers. Therefore, costs will likely shift to businesses that may in turn raise prices to offset their increased energy costs.

3) The demand for energy requires a consistent, reliable means of energy production. Renewable energy, especially wind and solar resources, are intermittent and therefore unreliable. This could create problems during peak demand periods or in emergencies.

Estimate of Fiscal Impact