



The Economic Impact of the Renewable Portfolio Standard: A Montana Perspective MPI Policy Note 03-11



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BOTTOM LINE UP FRONT:

In 2005, Montana's Legislature established a statewide Renewable Portfolio Standard (RPS) mandating that selected renewable energy sources account for 15 percent of retail electric sales by 2015, with a phase-in period beginning in 2010. The negative economic and social impacts of this mandate on Montana will be significant in terms of lost jobs and lower disposable incomes. In addition, the desired environmental impacts will not be achieved as firms with high power usage will simply avoid or leave Montana in favor of areas with lower electricity prices and potentially lower environmental standards, taking their jobs and prosperity with them.

The study, prepared by the Beacon Hill Institute using its STAMP® (State Tax Analysis Modeling Program), provides low, average, and high cost cases. The model produced the following estimates for increases in the cost and price of electricity to retail consumers in Montana:

- Increased electricity costs of \$225 million in 2015, with a range of \$141 to \$348 million.
- Accumulated increased electricity costs for the RPS phase-in period from 2010 through 2015 of \$1.865 billion, with a range of \$1.02 billion to \$2.886 billion.
- Montana's electric prices will increase by an average of 1.33 cents/kilowatt hour (kWh), or 18%, by 2015. The estimated increase ranges from 0.83 cents/kWh, or 11% to 2.06 cents/kWh, or 28%.

These significant increases in the cost of electricity will result in higher production costs and decreased labor demand in Montana, which will in turn cause job losses and gross wages to fall.

- By 2015, Montana will lose between 1,172 and 2,893 jobs as a result of RPS mandates.
- In 2015, the RPS mandate will reduce annual wages by between \$325 and \$803 per worker.
- Due to higher home energy costs, in 2015 annual real disposable income will fall by between \$109 million and \$270 million.
- In 2015, the RPS will cost families an average of \$142 per year, commercial businesses an average of \$673 per year, and industrial businesses an average of \$16,722 per year.
- During the period 2010-2015, the average household rate payer will spend an extra \$1,163 in higher electricity costs; the average commercial rate payer will spend an extra \$5,527; and the average industrial rate payer will spend an extra \$137,419.

Higher electricity costs may be justifiable if the environment benefits, in terms of reduced Green House Gas (GHG) emissions, outweigh the costs. It is unclear, however, that the use of many renewable energy resources, especially wind and solar, actually reduce GHG emissions; and any gains that may be made come at considerable cost.

- Wind and solar require significant fossil fuels-based backup power sources to accommodate variability in the availability of wind and sun for power conversion and to satisfy grid requirements. A recent study found that wind power actually increases pollution and GHG emissions due to these required backup systems.

- Firms with high electric usage will likely avoid Montana or move their production – and emissions – to locations with lower electricity prices and less stringent regulatory regimes. Exporting energy production and jobs will not reduce global emissions, but rather will simply send production, jobs and capital investment out of the state. Some firms may even move outside of the country where net global emissions would almost certainly be increased.
- For these reasons and more, no single state RPS or emissions control scheme can have any effect on global carbon emissions except to actually increase them by exporting power production overseas, along with jobs, growth, and productivity.

Current forms of renewable energy are more costly and less reliable than traditional sources and those not deemed to be renewable.

- Expanded development of the proposed alternative RPS resources will threaten the stability of the state's electric grid.
- Today's technology for renewable electricity sources is more costly and unreliable than conventional energy sources. Alternative energy output stands little chance in a competitive market environment and can only survive with taxpayer subsidies and mandates.
- Costs to meet the RPS standards will raise electric rates across the board. Increases in electricity costs are known to have a profound negative effect on the economy. As an essential commodity, consumers will have limited opportunity to avoid these costs. In some cases rising energy costs compete directly with essential purchases in a household budget, such as food transportation and shelter.
- The environmental benefits of wind power are a mirage due to the necessity of keeping back-up power generation sources online and available to cycle-up when wind power is not available.

Other rising costs will follow the requirements of building vast wind farms and other alternative energy systems.

- Wind farms will require large quantities of raw materials, particularly aluminum, and rising demand for construction will again increase costs of building. Aluminum prices have doubled during the past two years as the world emerges from a recession.
- Capital and other costs are more likely to rise than fall over the next two decades. Wind power will also require large expenses, and will drive up land prices.

We should eliminate entirely or postpone RPS requirements in Montana until we can debate all facets of the policy and make better informed decisions. This is an energy program that Montana taxpayers cannot afford.

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