



# The Policy Institute

## “Pick That Low Fruit! A Proposal of The Policy Institute for a Montana Office of Energy Conservation”

A Report of The Policy Institute

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*The Policy Institute blends authoritative research and hands-on political engagement to create public policy based on economic justice, fair taxation, corporate accountability and environmental responsibility.*

## **SUMMARY**

The Policy Institute proposes the establishment of an Office of Energy Conservation, to be part of the Montana Department of Commerce. The office is needed to address the state's inexorably growing energy challenges, to complement the state's current policy emphasis on increased energy production, and to aggressively pursue the significant economic benefits possible through energy conservation initiatives. The Office of Energy Conservation would have an annual budget of \$500,000-\$750,000, employ 6-8 people, and would be funded by legislative rescission of the oil and gas production tax "holiday," enacted in 1999.

This proposal is directed to members of the Montana Legislature, who possess the statutory and budgetary authority to establish a new state office, and to Governor Brian Schweitzer, whose support of the office will be integral to its legislative enactment and operational success.

## **THE TRANSFORMATION OF ENERGY**

Prior to the Arab oil embargo of 1973, many Americans thought of "energy" as something one wished for when tired. In another context, energy was best understood by physicists and chemists; it was quantified through mathematical formulas, measured in laboratories, and mentioned in conversations about thermodynamics or Einstein.

With the embargo, people began to appreciate the reality that one form of energy – petroleum – played a central role in everyday lives and that its availability might be limited.

In the decades since, energy has acquired meaning of sweeping breadth to almost everyone. Energy now frames almost any consideration of transport, manufacture, coal mining, and air pollution, as well as foreign relations, national security, and climate change. Today, energy is regarded as vital to human mobility, nourishment, shelter, and conceptualization of the future; it is common in language, central to the economy, and paramount in politics.

A recent attempt in Montana to address the subject of energy is the "Montana Climate Change Action Plan: Final Report of the Governor's Climate Change Advisory Committee" (November 2007). A collaborative product of a citizens committee, a national consulting firm, and the Montana Department of Environmental Quality, the report makes recommendations to the governor on how to decrease Montana's contribution to the warming of the planet.[1]

Because most solutions to human-caused climate change are inextricably rooted in energy management, many of the report's recommendations are related to energy - how to use less of it and how to produce less damaging kinds of it.

The Climate Change report contains 54 recommendations. But those recommendations, amply documented and well articulated as they are, have no substantive value unless implemented. The question of implementation looms especially large for a central strategy embraced by the report – the pursuit of energy conservation and efficiency. Thus it is the purpose of this proposal to describe a means by which the significant energy savings and economic benefit of conservation and efficiency may be obtained in Montana.

[2] Another recently issued and useful reference is “Repowering Montana – A Blueprint for Homegrown Energy Self-Reliance,” published in 2007 by the Alternative Energy Resources Organization, based in Helena.

## **A VIGNETTE OF MONTANA ENERGY**

Energy – and how people manage it – underlies a host of difficulties and apprehensions felt by Montanans, including:

- oil hovering around \$100 per barrel and gasoline at \$3.00 per gallon;
- proposed coal-fueled generating plants that presage more greenhouse gases;
- the specter of Peak Oil and its implications;
- rising natural gas and electricity rates that demand greater and greater proportions of home and business incomes;
- intensification of droughts, wildfires, and extreme weather events brought on by climate change;
- increasing energy production demands that threaten Montana’s ecological assets, economic framework, and cultural heritage.

These issues are national in scope, but some, such as coal development, wildfires, ecological values, and transportation costs, have added significance to Montanans. In any case, the number and magnitude of energy challenges have grown to produce these defining figures for the state:

- Montana’s energy efficiency, measured as the ratio of energy input per unit of economic output, increased from 1977 to 2001, but a growing population and expanding economy increased the state’s energy consumption during the same period[1].
- The United States accounts for about one quarter of the world’s energy consumption. Of the 50 U.S. states, Montana ranks 10th in per capita energy consumption[1].
- Montana (pop. 944,000) consumes 95,000 barrels of oil per day[1]; California (pop. 36,500,000) consumes 1,930,000 bbl/day[1]; Israel (pop. 6,400,000) consumes 249,500 bbl/day[1]; North Korea (pop. 23,000,000) consumes 25,000 bbl/day[1]; Afghanistan (pop. 32,000,000) consumes 4,500 bbl/day[1].
- From 1995 to 2003, electricity prices increased 1.3% per year (adjusted for inflation)[1].
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- From 1995 to 2003, natural gas prices increased 16.2% per year in Montana (adjusted for inflation)[3].
- From 1995 to 2003, electricity prices increased 1.3% per year (adjusted for inflation)[1].
- From 1973 to 2007, the national average gasoline price increased from \$1.50 per gallon to \$3.00 per gallon (adjusted for inflation)[4].
- From 1995 to 2003, electricity prices increased 1.3% per year (adjusted for inflation)[1].
- Coal provides about 55% of the electricity produced in the U.S.[5]
- From 1995 to 2003, electricity prices increased 1.3% per year (adjusted for inflation)[1].
- Of 15 major coal-producing states, Montana ranks first in coal reserves with nearly 119 million tons[6].

Numbers such as these give statistical shape to issues that most Montanans feel viscerally, and they provide the grist for the Climate Change Advisory Committee report, which proposes new and strengthened public policies through which Montanans may surmount the energy conundrum.

[1] U.S. Department of Energy/Energy Information Administration, "Montana Energy Data," [[http://tonto.eia.doe.gov/state/state\\_energy\\_profiles.cfm?sid=MT#Datum](http://tonto.eia.doe.gov/state/state_energy_profiles.cfm?sid=MT#Datum)], 29 November 2007.

[1] Central Intelligence Agency, "The World Factbook," [<https://www.cia.gov/library/publications/the-world-factbook/rankorder/2174rank.html>], 13 December 2007.

[1] Ibid.

[1] Ibid.

[1] Montana Department of Environmental Quality, "Montana Energy Code," [[http://www.psc.state.mt.us/eDocs/GovernorsTaskForce/20031024\\_Montana\\_Energy\\_Code.pdf](http://www.psc.state.mt.us/eDocs/GovernorsTaskForce/20031024_Montana_Energy_Code.pdf)], 24 October 2003.

## **CONSERVATION: THE STEPCHILD OF ENERGY MANAGEMENT**

Public energy policy – or energy management - may be expressed as an exercise in budgeting. On one side of the energy budget is supply, or energy production; on the other side is demand, or energy consumption. Given the solemn truth that humanity's energy budget will be balanced (no long-term loan options here), together with the foreboding trend of environmentally acceptable and economically plausible energy supplies not keeping pace with demands, it's clear that serious revision of public energy management is needed.

Public policies proposed to resolve energy issues span the supply-demand spectrum, but most political enthusiasm is dedicated to supply (production), as opposed to demand (conservation) solutions. As contrasted with conservation, increased production fits the American economic model of unfettered growth, capital-intensive infrastructure, and corporate dominance. Production doesn't conjure up perceptions of sacrifice or discomfort, as conservation sometimes does. Production solutions are frequently proffered with the political buying power of the energy industry, while conservation solutions, many of them lacking an organized consumer base and the promise of large financial rewards to the economic elite, cannot be moved with the same institutional power.

The preference for production-oriented policy is exemplified by the Montana Legislature's endorsement this year of Governor Schweitzer's proposal for a new state effort to aid in the construction of power lines and other energy infrastructure. The Energy Infrastructure Promotion and Development Division, attached to the Department of Commerce, started up in late summer and enjoys a budget of \$330,000 and a staff of three employees[7]. "We thought we needed more people plugging away at this," said Evan Barrett, the Montana's Chief Business Development Officer and a member of the governor's cabinet[8].

Other people plugging away at it include the staff of the Governor's Office of Economic Development, which pursues an "aggressive economic agenda" with particular emphasis on the energy sector and increased development of coal, oil and gas, wind, and biofuels.

[9] Ibid.

[10] zfacts.com, "Current Gas Prices and Price History," [<http://zfacts.com/p/35.html>], 15 January 2007.

[11] Montana Coal Council, "Montana Coal 2007."

[12] Ibid.

[13] IR State Bureau, "New energy division opens doors," Helena Independent Record, 23 September 2007.

[14] Ibid.

In that agency's brochures and power-point materials, all content is dedicated to increased supply. Conservation, with its enormous potential to contribute to Montana's economy, receives not a word of recognition.

All of the conservation recommendations of the Climate Change Advisory Committee's report project a net economic benefit. If the economic benefits of those recommendations are added as independent values, they hold an economic potential of \$953,000,000 to Montana between now and 2020. However, because the costs and impacts of some recommendations overlap, the true collective benefit of the conservation recommendations is somewhat less. The Climate Change report accounts for overlap in its collective estimates of economic value, but even if an additional overlap factor of 25 percent is introduced, the economic benefit to Montana of all conservation recommendations would be \$714,750,000 between now and 2020. That is equivalent to \$1,942 per Montana household.

Even considered individually, several conservation recommendations hold significant economic potential. For example, the pursuit of "Light Duty Clean Car Standards" would return \$141,000,000 (\$383 per Montana household) over the period 2008-2020. But the savings require an effort: "Notably," the report states, "the state Clean Car Program must clear several hurdles before Montana or any other state can adopt it ..." Those hurdles involve litigation (California is currently suing the U.S. Environmental Protection Agency over its desire to mandate higher vehicle mileage standards), work with the U.S. Environmental Protection Agency, and collaborative activism with other states in the region.

Another example, of the type of recommendation that is more achievable by the state through its own authority, is that of "Industrial Energy Audits," which offers \$93 million in economic benefit between 2007 and 2020. The "Implementation Mechanisms" listed in the Climate Change report for this recommendation include low- or no-interest loans, monitoring and

evaluation, Energy Star incentives, and tax incentives, all tactics requiring public support that either does not exist or does not exist in sufficient strength to achieve the conservation objective.

When the Climate Change report was unveiled in a news conference on November 19, Gov. Schweitzer acknowledged the conservation side of energy management by pledging to “lead by example” and reduce the state government’s energy consumption by 20 percent in three years[15].

“It’s time to take action,” Schweitzer said, and he was right.

But the state won’t cut energy use 20 percent by 2010, or achieve a significant number of the conservation recommendations of the Climate Change report, without a sharp focus, a tangible commitment, and adequate staff and material support.

## **SPECIAL EFFORT**

Given the number, complexity, and interrelationship of activities in which conservation may be pursued, the authority-compliance aspect of many conservation objectives, and the benefits to all Montanans that will result from a successful effort, it follows that a conservation initiative is a legitimate function of state government. And just as Montana policy-makers have committed people and funds to the pursuit of energy production (through the offices of economic development and energy infrastructure promotion), a similar effort on the conservation side of the energy formula is warranted.

Thus The Policy Institute proposes the establishment of an Office of Energy Conservation, to be located within the Montana Department of Commerce.

The functions of the Office of Energy Conservation would include:

- Development and execution of a strategic plan for conservation in Montana, to include prioritization of specific conservation objectives, especially those recommended in the Climate Change report, and a timeline, financial analysis, work assignments, and standards of measurement for each objective;
- Development of a reorganization plan that addresses existing and projected conservation programs in state government, proposing contraction, expansion, or consolidation where advisable;
- Provide staff and informational support to the Legislature;

### **Conservation: Analysis of an Investment**

- Benefit per Montana household from state-level appliance efficiency standards = \$11.50/year
- Benefit to large energy-consuming Montana businesses from industrial energy audits = \$7,154,000/year
- Benefit per Montana household from fuel efficient tire replacement program = \$18/year
- Cost per Montana household for Montana Office of Energy Conservation = \$2.04/year

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Figures derived from Net Present Values in “Montana Climate Change Action Plan” household estimates from “2005 American Community Survey” (U.S. Census Bureau), and proposed \$750,000 annual budget of Energy Conservation Office.

- Development of a prospectus and operating plan for a Montana Conservation Loan Fund to support energy conservation projects for public buildings and infrastructure;
- Initiate and maintain a public education campaign for conservation;
- Report regularly on achievement and measurement of conservation objectives.
- The Office of Conservation should initially employ four to six staff employees and be supported by an annual budget in the range of \$500,000 to \$750,000 (\$1.36 to \$2.04 per Montana household).
- The operating budget of the conservation office, as well as capitalization of the conservation loan fund, would be supported with revenue generated by the reestablishment of oil and gas production taxes that were reduced in the 1999 Legislature. The “New Production Tax Holiday” of 1999 significantly decreased revenue to state government, including \$144,000,000 in 2006 alone[16]. Promoted to encourage increased oil and gas production in Montana when oil was priced at about \$20 per barrel, the tax reductions are not justifiable with oil and gas prices that have soared to levels from which they are unlikely to fall.
- Revenue produced by ending the oil and gas tax holiday could be directed to the state’s general fund, from which the office of energy conservation would require but a fraction of the reestablished revenue.

[17] Communication and analysis from Office of Tax Policy and Research, Montana Department of Revenue, to Montana Senator Christine Kaufmann, December 4, 2007.

[18] Mike Dennison, “Schweitzer releases recommendations from climate change panel,” Helena Independent Record, 20 November 2007.

[4] Ibid.

[5] “Montana Energy Stats,” [<http://www.statemaster.com/state/MT-montana/ene-energy>], 26 December 2007.

[6] “California Energy Stats,” [[http://www.statemaster.com/graph/ene\\_pet\\_con-energy-oil-consumption](http://www.statemaster.com/graph/ene_pet_con-energy-oil-consumption)], 26 December 2007.