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Reducing greenhouse gas emissions can boost Michigan's economy

Español

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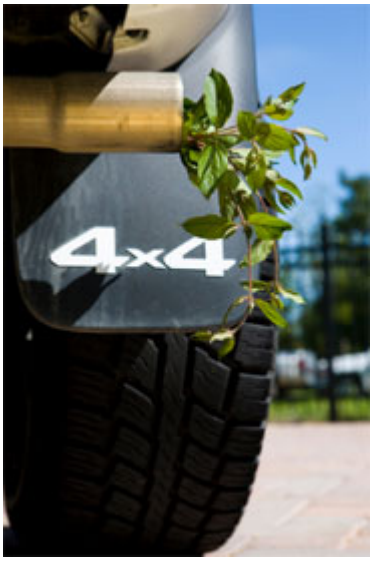

ANN ARBOR, Mich.—Michigan can add $380 million a year and 3,400 full-time jobs to the state's economy by 2025 while reducing emissions of heat-trapping greenhouse gases linked to global warming, according to a study released today by the University of Michigan Center for Sustainable Systems.

The study, Michigan at a Climate Crossroads: Strategies for Guiding the State in a Carbon-Constrained World, evaluates emissions-reduction options and their likely effects on the state economy. Based on computer-modeling studies, the report concludes that Michigan can reduce emissions of carbon dioxide and other greenhouse gases 12 percent by 2025 while fueling job creation and economic growth.

Researchers presented their findings today in testimony before the House Energy and Technology committee of the Michigan Legislature.

"Our research demonstrates that the state can achieve environmental improvements at the same time that it creates positive economic outcomes," said project director Gregory Keoleian, co-director of the University of Michigan's Center for Sustainable Systems. "Policies such a Renewable Portfolio Standard could better position the state to thrive economically while addressing future energy challenges and anticipated carbon regulations."

Enacted separately, the examined policies could result in the following economic impacts by 2025:

• Renewable portfolio standard. Requiring state-regulated utilities to provide 20 percent of their power from renewable sources could add $64.6 million annually to the state's economy and create 881 jobs.

• Renewable motor fuel standard. Mandating that renewable sources such as ethanol supply 25 percent of the state's motor vehicle fuel could create 1,700 jobs and contribute $283 million annually to the state's economy.

• Building codes. Requiring higher insulation values for ceiling, walls, floors, windows and basements in all new single-family homes built in the state could create 644 jobs and contribute $54 million annually. This option would involve implementing a combination of the International Energy Conservation Code 2006 and U.S. Department of Energy insulation recommendations.

• Appliance standards. Setting efficiency standards for 15 common industrial and household appliances could create 437 jobs and contribute $38.3 million annually.

• Combined heat and power. Producing at least 180 megawatts using combined heat-and-power systems as replacement electricity and steam sources for industry would reduce greenhouse

emissions. But 81 jobs and $13.6 million annually could be lost due to state government subsidies.

• Carbon sequestration. Planting conifers on 10 percent of the state's marginal agricultural lands could lead to a loss of 212 jobs and cost the state $46.7 million annually due to state government subsidies.

Of the policies analyzed, implementing a 20 percent renewable portfolio standard would result in the greatest reductions in greenhouse-gas emissions: 39.9 million metric tons of carbon equivalent by 2025.

By 2025, a renewable motor fuel standard could cut emissions by 13.2 million metric tons; carbon sequestration by 10.3 million metric tons; appliance efficiency standards by 7.35 million metric tons; revised building codes by 6.83 million metric tons; and the use of combined heat and power by 6.09 million metric tons.

"This study demonstrates that environmentally sound policy and economic growth are not mutually exclusive," said Rosina Bierbaum, dean of the University's School of Natural Resources and Environment.

A team of U-M faculty members and graduate students worked on the project for more than a year, with guidance from more than 150 experts from business, government, education and non-profit organizations. Primary project sponsors were the Center for Sustainable Systems and the National Environmental Trust.

The new study builds on the Michigan Greenhouse Gas Inventory 1990 and 2002, prepared by the Center for Sustainable Systems. That report showed that statewide greenhouse gas emissions increased 9 percent between 1990 and 2002, from 57.4 million metric tons of carbon equivalent to 62.6. In 2002, a third of the emissions resulted from electricity generation, 26 percent came from the transportation sector, and 17 percent from industry.

In February, the United Nations-sponsored Intergovernmental Panel on Climate Change concluded that the human-caused buildup of heat-trapping greenhouses gases has "very likely" contributed to the observed increase in the global average temperature over the past 50 years.

*The report, written by the U-M Center for Sustainable Systems,was presented Wednesday to the House Energy and Technology Committee of the Michigan Legislature. Briefing speakers were Rosina Bierbaum, dean of the U-M School of Natural Resources and Environment; Gregory Keoleian, co-director of the university's Center for
Sustainable Systems; and Jim Sygo of the Michigan Department of Environmental Quality.

http://www.ns.umich.edu/htdocs/releases/story.php?id=5863