“MU recognizes the increasing need for policies and practices that reduce greenhouse gas emissions and has signed the American College and University Presidents’ Climate Commitment with the goal of making the MU campus carbon neutral.”

University of Missouri Sustainability Policy

Additional Strategies and Projects

Transportation
Currently, transportation accounts for less than 10 percent of MU’s evident carbon emissions. At the campus reduce emissions from other sources, in some cases transportation will play a larger role in its greenhouse gas footprint. The Climate Action Plan screens out increasing mainstream transportation with the overall vision of Columbia, focusing on a number of sustain- ability with student groups, furthering the use of the “telecenter network and investigating offsets.

Education
The University recognizes that educating students about sustainability and green campus, the Office of Sustainability will have a powerful impact on the larger community. The Climate Action Plan’s focus on education is to be revisited on an annual basis in conjunction with the Campus Master Plan. Like the Campus Master Plan, the Climate Action Plan will be a working tool used to stimulate discussion and interaction among the many campus groups that might have direct or indirect interest in the development of the Campus Master Plan.

Links

Climate Action Plan Update
UNIVERSITY OF MISSOURI
MARCH 2011

Chancellor Deaton’s Commitment
MU Chancellor Brady J. Deaton signed the American College and University Presidents’ Climate Commitment in January 2009.

In doing so, he joined more than 600 presidents and chancellors of colleges and universities in recognizing their global warming role. By signing, Chancellor Deaton committed University of Missouri to take the following steps:

1. Develop a comprehensive plan to achieve climate neutrality as soon as possible.
2. Institute new or re去掉 traditional actions to reduce greenhouse gases with the more comprehensive plan being developed.
3. Make the plan, inventory and progress reports publicly available, by providing them to the Association for the Advancement of Sustainability in Higher Education.
4. Chancellor Deaton signed a clear message that MU is committed, financially and philosophically, to a carbon-neutral future. Since the signing, he and the university have completed a number of required steps, including creating the MU Sustainability Office, hiring a sustainability coordinator and charging the Environmental Affairs and Sustainability Committee to include comprehensive sustainability.

Targets and Goals
MU is committed to becoming carbon neutral and has a rolling date to achieve this goal. Since the signing of the commitment’s progress on any schedule, 50% will not fall that date for the future, rather, it will review progress at the conclusion of every calendar year and provide a status report to the campus.

By the first plan of the Climate Action Plan, MU will reduce carbon emissions by 20 percent from the 2007 emission baseline. Going forward, MU will have a rolling five-year plan that will focus review on an annual basis in conjunction with the Campus Master Plan. Like the Campus Master Plan, the Climate Action Plan will be a working tool used to stimulate discussion and interaction among the many campus groups that might have direct or indirect interest in the development of the Campus Master Plan as it relates to MU’s environmental, economic and social initiatives. The plan will include updates required by the American College and University Presidents’ Climate Commitment: energy, transportation, education, research and its financing. It will also include other areas of sustainability — water, waste management, sustainability, building design and construction, and food.

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In the first phase of the Climate Action Plan, MU by 2015 will reduce greenhouse gas emissions by 20 percent from the 2008 emissions baseline.

### Initial Plan 2008–2015

The initial phase of MU’s climate action plan requires a 20 percent carbon emission reduction from the 2008 emissions baseline. As of July 2010, the campus-wide energy intensity stands at 12.4 percent better than the initial plan projection. The targets are based on the following assumptions:

- **Fuel Mix & Purchased Power**
  - Fuel mix will be improved with increased use of biomass, natural gas, and renewable energy and fuel cells available.
  - Purchased power will be optimized by implementing new lighting technology, installing occupancy sensors, educating heating user in utilizing more efficient motors.
- **Other Measures**
  - MU will require energy modeling in all projects. New constructions will achieve 25 percent improvement, and renovations will achieve 15 percent in greenhouse gas reductions.
  - Air-portable testing will be standardized for all projects.
  - MU will conduct a feasibility study of solar-thermal panels at the MU Power Plant.
  - MU will work to optimize space on campus.
- **Rolling Plan**
  - MU will work toward setting a target date to achieve certain internally.

### Rolling Plan

- **Optimize power plant fuel use** to further decrease emissions.
- **Invest in conservation options with lower paybacks and lower return on investment** and permit the university to implement additional strategies.
- **Continue space optimization and using “living spaces” to achieve further significant reductions**.
- **Increase energy efficiency measures** and evaluate building performance metrics to further reduce energy use.
- **MU will continuously investigate new technologies as they become available**.
- **When economically feasible, MU will install power-purchase efficiency**.
- **Implementing end-use accountability will contribute to reductions**.

### University of Missouri Climate Action Plan

- **TARGET**
  - 20% Reduction in Greenhouse Gas Emissions
- **2008**
  - Greenhouse Gas Emissions
  - 276,461 Metric Tons of Carbon Dioxide Equivalents
- **2015**
  - Greenhouse Gas Emissions
  - 213,169 Metric Tons of Carbon Dioxide Equivalents

## University of Missouri Trends 1990–2010

- **Emissions per Person**
- **Emissions per Gross Square Foot**

### Greenhouse Gas Emissions

<table>
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<tr>
<th>Fiscal Year</th>
<th>Emissions per Person</th>
<th>Emissions per Gross Square Foot</th>
</tr>
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<tbody>
<tr>
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<tr>
<td>2015</td>
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<td>0.015</td>
</tr>
</tbody>
</table>

### Rolling 5-year Plan

- **2010**
  - 20% Reduction in Greenhouse Gas Emissions
- **2015**
  - 20% Reduction in Greenhouse Gas Emissions

### Plant

- **Rolling Plan**
  - **Optimize power plant fuel use** to further decrease emissions.
  - **Invest in conservation options with lower paybacks and lower return on investment** and permit the university to implement additional strategies.
  - **Continue space optimization and using “living spaces” to achieve further significant reductions**.
  - **Increase energy efficiency measures** and evaluate building performance metrics to further reduce energy use.
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### Trends

- **Greenhouse Gas Emissions 1990–2010**
- **Emissions per Person**
- **Emissions per Gross Square Foot**

#### University of Missouri Campus Facilities—Energy Management

- **MU** will conduct a feasibility study of solar hot-water panels at MU.
- **MU will continually investigate new technologies as they become available.**
- **Air-barrier testing will be standard on all projects.**
- **Continued space optimization and creating “swing space” will allow more energy efficiency.**
- **Implementing end-user accountability will contribute to reductions.**
- **Optimizing power plant fuel use will further decrease emissions.**
- **Investing in conservation options with lower paybacks and lower return on investment** and permit the university to implement additional strategies.
- **Continue space optimization and using “living spaces” to achieve further significant reductions.**
- **Increase energy efficiency measures** and evaluate building performance metrics to further reduce energy use.
- **MU will continuously investigate new technologies as they become available.**
- **When economically feasible, MU will install power-purchase efficiency.**
- **Implementing end-use accountability will contribute to reductions.**

- **MU’s Campus Facilities—Energy Management** has been actively pursuing energy conservation, cost-saving opportunities since the mid-1980s. To 1990, a formal energy conservation program was established, with an emphasis on identifying and reducing energy use per gross square foot that has decreased by 12.5 percent. In 1991, the president established a campus-wide committee and general savings for 12.5 percent during the same period. Energy Management keeps an updated list of energy conservation measures on its website: [http://www.tnstate.edu/energy](http://www.tnstate.edu/energy).