

MSU Climate Action Plan Draft - Executive Summary

In 2008, Montana State University (MSU) signed the American College and University Presidents Climate Commitment (ACUPCC): www.presidentsclimatecommitment.org. The ACUPCC acknowledges “the scientific consensus that global warming is real and is largely being caused by humans. We further recognize the need to reduce the global emission of greenhouse gases (GHGs) by 80% by mid-century at the latest in order to avert the worst impacts of global warming and to reestablish the more stable climatic conditions that have made human progress over the last 10,000 years possible.”

MSU’s Campus Sustainability Advisory Council (CSAC) was established to advise MSU’s President on sustainability and meeting ACUPCC obligations, which include the:

- periodic inventoring of GHG emissions;
- development and public reporting of a climate action plan (CAP); and,
- strengthening of research, education, and civic engagement efforts to promote climate stabilization and progress toward sustainability.

The Elements of MSU’s Climate Action Plan (CAP)

MSU’s inaugural CAP reports efforts to significantly reduce our GHG emissions and integrate sustainability into all aspects of university operations, learning, discovery and service. Beginning with a baseline GHG inventory compiled in 2009, mitigation strategies and specific emissions reduction goals are presented. Additionally, the CAP presents ongoing and proposed activities to integrate sustainability and climate neutrality into operations, curriculum, research and civic engagement. The CAP will be updated biannually to report on progress toward these goals, and facilitate development of related sustainability activities at MSU-Bozeman.

Baseline Greenhouse Gas Inventory

The 2009 annual baseline GHG inventory revealed that approximately 77,375 metric tons of carbon dioxide-equivalent (MTCDE) were emitted from MSU-Bozeman campus operations, as defined by limits provided by the ACUPCC. Of this total, approximately one third are generated by direct fuel combustion on campus, one third from purchased electricity, and one third from indirect emission sources such as transportation and solid waste.

Mitigation Strategy and Benchmarking

MSU-Bozeman campus intends to implement a near-term emissions reduction strategy based on the following University Council guidance:

- continue and complete energy conservation projects presently funded;
- tackle additional cost-effective energy conservation projects as they become reasonable/attainable, contingent upon funding;
- leverage cost-effective technological advancements as they develop;
- comply with mandated energy efficiency requirements for new building projects;
- move resource conservation services in-house, and leverage these services into a Resource Conservation Culture Program; and,
- pursue renewable energy sources, offsets, and/or credits as cost-effective mechanisms become available and/or upon the State of Montana taking action to enable, support, and fund them.

Given the above direction, an ambitious, yet achievable GHG reduction strategy was developed. An interim goal of 20% reduction from 2009 GHG emissions by 2025 has been established. Extensive planning and analysis is required to confidently establish further reduction milestones, and the ultimate goal of net zero carbon emissions. Planning will continue concurrently with the implementation of early (Phase One and Two) projects. Feedback from these early efforts will contribute to CAP course corrections and revised milestones.

Climate Neutrality and Sustainability in Education, Research, and Outreach

MSU-Bozeman seeks to provide an environment that promotes the exploration, discovery, and dissemination of new knowledge, as well as serve the people and communities of Montana. This mission draws on the unique geographic setting and the ethnographic and cultural diversity of Montana, as well as our location in the Greater Yellowstone Ecosystem and adjacent Great Plains. We use our unique location to instill in students a sense of responsibility to *sustain environmental integrity and function and to improve the quality of life for all*. Research, education and outreach activities focused on sustainability range from clean energy and sustainable food production to climate change impacts and human health, and they are underway in various centers, colleges and departments at MSU. Many of these activities have historically occurred in isolation with little effort to bridge across departments and colleges. To coordinate and enhance communications, the MSU Institute of the Environment (IoE) is currently being launched. The IoE is a faculty-designed and supported effort that builds on and transforms the existing Regents-approved Big Sky Institute (BSI). The IoE mission, to promote interdisciplinary discovery, education, and engagement focused on a sustainable future for Montana as well as mountain regions around the world, is a strategic alignment of ongoing and future efforts at MSU-Bozeman.

Engagement and Partnerships

We seek engagement and partnerships in research, education, and service to ensure that objective science information with a practical human perspective is used to envision our future and the steps necessary to achieve it. MSU recently was awarded the Carnegie Foundation's Community Engagement classification, a designation which recognizes an institution's high level of outreach and collaboration with its surrounding community. MSU has a myriad of outstanding examples of environmental and community outreach, as evidenced later in the CAP. While these efforts are not coordinated and widely shared, the IoE will provide a point of contact for collaborations with other MUS institutions (including other MSU campuses, University of Montana, and tribal colleges), state and federal agencies (including USGS Northern Rocky Mountain Science Center, Yellowstone National Park, Northern Region US Forest Service, Bureau of Land Management), nongovernmental organizations (World Wildlife Foundation, Wildlife Conservation Society, Greater Yellowstone Coalition), MSU Extension, communities, small businesses, corporations and foundations, and private citizens.

By setting a strong example through tangible progress toward net zero GHG operations, graduating students knowledgeable in climate change, and successfully integrating with the surrounding community and region, MSU intends to be a leader in transforming the world to the greatest extent possible toward sustainable living, choices, and technologies that will ultimately mitigate climate change to the degree humanity has contributed to its causation.