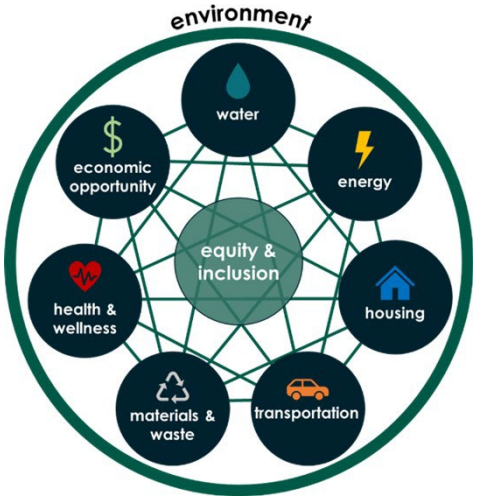
Bemidji State University

Climate Action & Resilience Planning

Introduction to Climate Action & Resilience Planning at BSU

Upon signing the Climate Commitment in the Spring of 2019, President Faith Hensrud continued a long legacy of climate action. BSU has been **committed to achieving carbon neutrality** since 2008, when President John Quistgaard signed what was then called the American College and University Presidents' Climate Commitment. This commitment has sustained through three administrations and represents just one part of how we exemplify our **Shared Fundamental Value of Environmental Stewardship** and step up as leaders to address the climate crisis.



Equity & Inclusion and the Environment as Key Lenses

Our work has expanded beyond calculating our carbon footprint and working to decrease our net greenhouse gas emissions as an institution. We now integrate a **holistic approach** to our understanding of and commitment to climate action through Resilience Planning. **Our climate is changing**, and we need to be poised and ready to avoid disruption by **anticipating, adapting, and thriving in the face of change**. We must recognize and respect the ecological boundaries that characterize our environment and see ourselves as **a part of**, **not apart from**, the environment. We must also center issues of equity and inclusion as we identify the challenges and opportunities facing our campus and community in advancing a more sustainable and resilient institution. With this holistic framework in mind, we **center equity & inclusion as well as the environment** as key lenses through which we understand our current conditions and assess any future actions.

Framework & Process

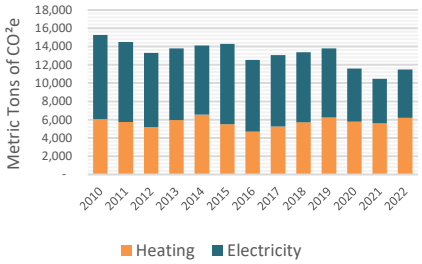
In the Fall of 2019, members of the Sustainability Office and the Center for Sustainability Studies secured a $50,000 grant from the McKnight Foundation to advance BSU's Climate Action & Resilience Planning process. These grant dollars were used to hire two consultants; one to conduct a geothermal feasibility study examining how electrifying our district heating system may reduce BSU's carbon footprint, and another to engage the campus and community in ongoing conversations about strengthening our local resilience. The latter Resilience Planning process kicked off in the Summer of 2020, when our consultant Precipitate LLC and an internal Climate Action & Resilience Planning team began hosting conversations with campus and community members around what people love about Bemidji, what the campus and community are doing well, and where we could build stronger resilience. Seven key resilience indicators emerged out of these interviews, focus groups, and community engagement sessions: **energy, transportation, housing, economic opportunity, materials & waste, health & wellness** and **water**.

Overview of Resilience Indicators

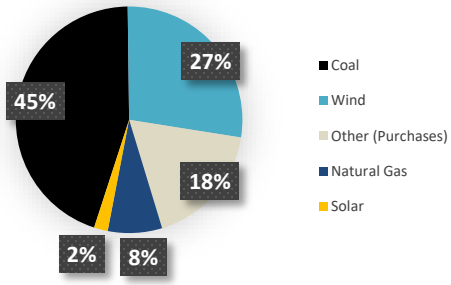
We further explored each of these seven indicators during World Café-style events held in the Fall of 2021. We began identifying qualitative and quantitative metrics to inform our actions and assess our progress. This process remains iterative and expansive, as we strive for more and better information, inclusion, and participation from campus and community stakeholders.

Energy

BSU's Carbon Footprint from Electricity & Heating



BSU'S Electricity Sources
(Otter Tail Power Co's Proposed 2023 Generation)



Generate renewable electricity on/off campus
- ➢ *Install solar photo-voltaic arrays on campus*
- ➢ *Partner to develop off-campus arrays*

Electrify district heating system
- ➢ *Replace natural gas boiler with geothermal*

Reduce plug load consumption
- ➢ *Explore smart plugs and other programming*
- ➢ *Use efficient appliances (ie. Energy Star)*

Increase awareness about phantom loads
- ➢ *Educate students, staff, and faculty*

Transportation

Expand Electric Vehicle (EV) charging infrastructure
- ➢ *Increase availability/equitability of charging stations, incentive use of EV's*

Increase vehicle fleet fuel efficiency
- ➢ *Increase average fuel efficiency, provide PHEV and EV options*

Support multi-modal transportation
- ➢ *Improve bicycle infrastructure (all-season), education, and incentives*

Reduce single-occupancy ridership
- ➢ *Provide ridesharing incentives and support for public transit*

Bike Bemidji 2021

Housing

Increase student retention in on-campus housing
- ➢ *Improve affordability and value-adding propositions*
- ➢ *Increase diversity of housing formats (i.e. apartment, townhouse)*

Explore alternative project funding to supplement revenue funding
- ➢ *Seek energy efficiency and renovation programs, grants*

Support students living off campus
- ➢ *Educate about lease agreements, security deposits, utilities, etc.*
- ➢ *Provide programming to engage students who live off campus*

Economic Opportunity

Improve educational opportunity for all
- ➢ *Waive undergraduate application fee, competitiveness of tuition & fees*

Explore experiential learning opportunities
- ➢ *Encourage applied project-based learning whenever possible*

Increase job placement of graduates
- ➢ *Improve pre-professional programs, internship opportunities via private-public partnerships*

Materials & Waste

Reduce consumption
- ➢ *Increase awareness/usership of FreeStore, other secondhand retailers*

Source materials locally
- ➢ *Understand and use Sustainable Procurement Guidelines*

Expand organics recycling program
- ➢ *Ensure availability of receptacles in res. halls and academic buildings*

Health & Wellness

Encourage physical activity of all forms
- ➢ *Provide non-competitive opportunities, increase utilization of Hobson Memorial Forest*

Improve accessibility of campus infrastructure
- ➢ *Reduce number of inaccessible locations*

Support holistic, culturally-responsive dietary health and nutrition
- ➢ *Increase availability of locally-sourced and organic produce, grains, and proteins*
- ➢ *Provide educational opportunities on healthy diets*
- ➢ *Share resources on SNAP program and application process*

Water

Improve water quality of Lakes Bemidji, Irving, and Mississippi River
- ➢ *Reduce runoff via rain gardens, bioswales, permeable pavement, green roofs, shoreline buffer zones, etc.*
- ➢ *Reduce dumping of nutrient-rich effluent*

Reduce water consumption for irrigation
- ➢ *Expand native plantings, rainwater collection*

Aligning with Minnesota State's System Procedure 5.17.1 Environmental Sustainability Practices

Energy

Reduce energy consumption per square foot by 30 percent below 2017 consumption by 2027. (Part 4. B. *Energy Conservation and Efficiency*)

Transportation

Implement programs and initiatives that promote lower carbon-intensive transportation options such as carpooling, biking, walking, and use of public transportation systems both for regular commuting as well as for campus-related activities. (Part 4. E. *Transportation*)

Materials & Waste

Achieve a 75 percent solid waste diversion rate through both recycling and composting of solid waste by 2030. (Part 4. D. *Solid Waste*)

Implement programs, initiatives and/or curriculum addressing sustainable food offerings and other food service-based initiatives such as tray-less dining and compostable or reusable serveware and containers; local and regenerative food production; and food recovery efforts. (Part 4. F. *Food and Dining*)

Health & Wellness

Implement programs and initiatives addressing low chemical-emitting finishes, interior furnishings, furniture, and cleaning products, and the use of LED lamps instead of fluorescents to limit mercury exposure. (Part 4. H. *Pollution Prevention*)

Implement programs, education, staff training and initiatives addressing green infrastructure, such as Low Impact Development for stormwater management, Smart Salting ice and snow removal strategies, and design and manage landscapes to protect pollinators using native trees and plants. (Part 4. G. *Conservation and Protection of the Natural Environment*)

Water

Reduce water consumption per square foot by 15 percent below 2017 consumption by 2025. (Part 4. C. *Water Conservation and Efficiency*)

Carbon

Reduce carbon emissions to a level at least 30 percent below 2009 levels by 2025, and to a level at least 80 percent below 2009 levels by 2050. (Part 4. A. *Carbon Emissions*)