ENERGY TRANSITION PLAN

The Energy Transition Plan, approved by the Board of Trustees in April 2012, is a long range energy plan for the university. It was created by the Energy Transition Steering Committee and balances reliability, capacity, environment, health, and cost considerations. The plan will be updated every five-years with extensive input from experts inside and outside of campus and the surrounding community. To read the complete Energy Transition Plan, visit ***www.president.msu.edu/energy-transition-plan.***

GOALS

IMPROVE THE PHYSICAL ENVIRONMENT

- Pursue aggressive, sustainable energy conservation and re-invest energy savings for future energy needs
- Implement a smart growth strategy to minimize amount of new square footage added to campus
- Create a system that connects energy and space costs and incentives to end users
- Implement more aggressive building energy standards
- Continue to monitor and improve energy efficiency standards
- Maximize switching to alternative cleaner fuels (subject to availability, technical and regulatory constraints)
- Implement smart-grid technology
- Purchase green power
- Create large-scale renewable projects
- Utilize carbon offsets
- Educate community on MSU's energy and continue behavior change for energy conservation

INVEST IN SUSTAINABLE ENERGY RESEARCH AND DEVELOPMENT

- Promote sustainable energy research by using the campus as a living, learning laboratory for developing, evaluating, and demonstrating new technologies
- Build on well-recognized, sustainable energy research programs by aggressively seeking expertise and sources of funding
- Systematically invest a portion of energy costs and cost savings in sustainable energy demonstration projects on campus
- Streamline facilities, policies and systems to enhance cross-disciplinary, cross-functional collaboration among academic units, faculty, staff and students.

BECOME AN EDUCATIONAL LEADER IN SUSTAINABLE ENERGY

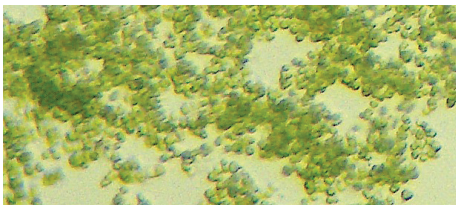
- Educate stakeholders about MSU's long-standing commitment to and ongoing research in sustainable energy
- Share MSU's energy transition process and lessons learned from it

PERFORMANCE & PROGRESS

IMPROVE THE PHYSICAL ENVIRONMENT

One of the greatest challenges for MSU is how to reliably meet the university's growing energy needs while reducing negative impacts of power generation on our environment. This year, MSU has seen a 14% decrease in GHG emissions and have increased renewable energy usage to 2%. In addition, there has been a 6.4% decrease in BTU usage per square foot, and coal use has decreased from 85% to 36% since 2009.

INVEST IN SUSTAINABLE ENERGY RESEARCH AND DEVELOPMENT



MSU has a solid and growing foundation in alternative energy research. Building on these efforts will shorten research and development time and better position the university to take advantage of new opportunities. One such opportunity is the new partnership with PHYCO2, has developed a method that produces algae that works to capture harmful greenhouse gases while producing large volumes of biomass and clean oxygen, all without sunlight. The technology will be tested at the T.B. Simon Power Plant, in coordination with MSU's Department of Biosystems and Agricultural Engineering.

BECOME AN EDUCATIONAL LEADER IN SUSTAINABLE ENERGY

A land-grant university has a mission beyond educating students and developing research: it also plays an important role in applying knowledge to improve the quality of life for local, regional and national communities. The Better Buildings Challenge through the U.S. Department of Energy is one important project being implemented on campus. The project involves developing profiles of more than 100 campus buildings to measure energy usage and determine which buildings would benefit from a retrocommissioning of building systems. Anthony Hall was the first building to undergo this upgrade and has expected energy savings of up to 34%.

MICHIGAN STATE UNIVERSITY