



National Wildlife Federation®
CAMPUS
ecology®

Ball State University
Muncie, Indiana
Energy

SCHOOL

Ball State University, a public 4-year institution, serving approximately 19,000 students in Muncie, Indiana.

ABSTRACT

Ball State University has announced that it will be replacing its four coal-fired stoker boilers with the nation's largest geothermal energy project to provide heating and cooling to over 40 buildings. The project, estimated to cost approximately \$65-70 million will begin construction in July 2009 and continue for the next five to ten years when fully operational. It is anticipated that the university will save \$2,000,000 annually once all four boilers are shut down and cutting carbon emissions on campus by some 80,000 tons per year.

GOALS AND OUTCOMES

Goals

The university is committed to being a leader in sustainability and holding to its commitment as a charter signatory of the Presidents Climate Commitment. Over the next three years, the university will begin drilling the first of a total of 4,000 boreholes on campus and constructing the first of three energy stations.

Accomplishments and Outcomes

When completed, this project will provide the heating and cooling needs for over 40 buildings on campus, completely replacing the current coal-fired plant. In the process the project will create local construction jobs and increase equipment production for manufactures.

Challenges and Responses

Currently the largest challenge is fiscal: while the state of Indiana has allocated \$40 million to the project, the remaining funds need to be obtained. The university is currently applying to federal grants to use the project as both a demonstration project and research platform; the intent is to examine the reduction of start-up costs for such future projects.

Campus Climate Action: Your School's Carbon Footprint

As mentioned earlier, when fully operational, the geothermal system will reduce our carbon footprint by some 80,000 tons annually, which is a reduction of nearly 50 percent of our current greenhouse gas (GHG) contribution.

Commentary and Reflection

One of the opportunities of this project is to share lessons learned with institutions looking to initiate similar geothermal projects, through presentations, publications, and websites.

ENGAGEMENT AND SUPPORT

Leaders and Supporters

The leadership for this program comes from our Business Affairs office, with the full support of the President and Board of Trustees. In addition, support is being provided by the University's Council on the

Environment (COTE) with technical support from the Departments of Geology and the Department Natural Resources and Energy Management. Senator Richard Lugar (R-IN) has also expressed support for the project and was present at the groundbreaking.

Funding and Resources

The project is estimated to cost \$65-70 million over the next 5-10 years. The state of Indiana has allocated \$40 million towards the project and the University is currently looking to secure federal grants through the Department of Energy for the difference. There are also a number of opportunities through the American Recovery and Reinvestment Act (ARRA) for geothermal demonstration and research projects.

Education and Community Outreach

The university has created a website for the project (<http://cms.bsu.edu/About/Geothermal.aspx>) and plans on sharing details and developments of the project, the process, and results with the academic community through presentations and publications.

Also see other web sites which document the history of the greening of the campus work at BSU:

www.bsu.edu/sustainability
www.bsu.edu/cote
www.bsu.edu/greening
www.bsu.edu/g2
www.bsu.edu/cluster

National Wildlife Federation's Campus Ecology Program

We continue to rely on the network of colleagues active in the NWF Campus Ecology Program.

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MORE ABOUT YOUR SCHOOL

Campus Sustainability History

Ball State University is recognized as a leader in sustainability in higher education, from biodiesel fuel and hybrid cars to the Greening of the Campus Conference Series (<http://www.bsu.edu/greening/>).

President Gora is one of the 12 founding signatories of the American College and University Presidents Climate Commitment. The University's sustainability initiatives are afforded leadership by the Council on the Environment (<http://www.bsu.edu/cote>). More information on sustainability achievements at Ball State can be found at:

<http://cms.bsu.edu/About/Geothermal/GreenCampus.aspx>.
www.bsu.edu/sustainability
www.bsu.edu/cote
www.bsu.edu/greening
www.bsu.edu/g2
www.bsu.edu/cluster