

University Sustainability

The BSU Story

Geothermal Conference II 10 April 2014

Robert J. Koester AIA LEED AP Professor of Architecture Chair, BSU Council on the Environment



2001-06 Strategic Plan

Goal II

"...promote a learning climate that values civility, diversity, multicultural awareness, appreciation of the arts, healthy and productive living, and environmental Sustainability." BALLUSTATE UNIVERSITY Strategic Plan 2001–2006



Making the Grade Progress Report 2004

www.bsu.edu/strategicplan



2007-12 Strategic Plan

Goal 4F "By 2008,...create sustainability plans for each unit represented."





2012-17 Strategic Plan

Goal 3, Objective 3 "continue to position the university as a steward of the environment by... building on the university's expertise and success in sustainability."

BALL STATE UNIVERSITY

STRATEGIC PLAN 2012–2017

Education Redefined 2.0: Advancing Indiana



www.bsu.edu/strategicplan



The Benchmark Timeline

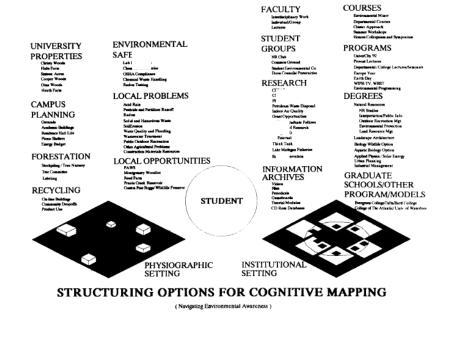
1986	Campus Master Plan and Reforestation Commitment
1986	High voltage Infrastructure and Energy Conservation Plan
1991	Green-1 Committee
1992	'Green' for Green Workshops
1996	Greening of the Campus Conference (GOC_I)
1999	Talloires Declaration
2000	Green-2 Committee
2001	Council on the Environment (COTE)
2001	Strategic Plan Integration 2001-06
2005	AASHE (Launched at GOC_VI)
2006	ACUPCC ((President Gora in the Leadership Circle)
2007	Strategic Plan Integration 2007-12
2008	Greenhouse Gas (GHG) Emissions Inventory
2009	Greening of the Campus Conference (GOC_VIII) w/ AASHE
2010	BSU Climate Action Plan 2010-2050
2010	The Geothermal Project
2009	Greening of the Campus Conference (GOC_IX) & Dedication
2012	Strategic Plan Integration 2012-17
2012	ISCN Award for Sustainability Integration
2012	STARS Gold Rating
2013	GeoCon I
2013	USGBC Green Schools Presidential Leadership Award
2014	GeoCon II



1991

Dr. William Rogers Institutional Setting: Dr. Leslie Smith Dr. Michael Sullivan Dr. Don VanMeter Green Committee (Green-1) 14 Members

Dr. Gene Frankland **Political Science** Physiology & Health Science Physics and Astronomy Economics Chemistry Social Work Natural Resources Dr. Harlan Roepke Geology Landscape Architecture Geography Sciences and Humanities



Mr. Robert J. Koester CERES, Co-Chair Dr. B. Thomas Lowe

Dr. Dale Hahn

Dr. Stan Keil

Dr. Ruth Howes

Dr. Patricia Lang

Dr. Pamela Miller

Dr. John Pichtel

Natural Resources, Co-Chair

35 Recommendations

Immediately Doable Funding and Time Required Capital Expense & Structural Change







Earth Day 1999

: Secretariat

Talloires

"find opportunities to address urgent need"	: Publics
"formulate education, research and policy"	: Universities
"teach ecologically literate, responsible citizens	": Students
"invest in personnel development"	: Faculties
"undertake institutional best practices"	: Exemplars
"target support for research, education, policy"	: Funders
"engage in outreach activities"	: Practitioners
"promote K-12 linkages"	: Schools
"participate in worldwide effort"	: Organizations

"...inform, support, continue momentum..."

THE TALLOIRES DECLARATION

WE, THE PRESIDENTS, RECTORS, AND VICE CHANCELLORS OF UNIVERSITIES FROM ALL REGIONS OF THE WORLD are deeply concerned about the unprecedented scale and speed of environmental pollution and degradation, and the depletion of natural resources.

Local, regional, and global air and water pollution; accumulation and distribution of toxic wastes; destruction and depletion of forests, soil, and water, depletion of the ozone layer and emission of "green house" gases threaten the survival of humans and thousands of other living species, the integrity of the earth and its biodiversity, the security of nations, and the heritage of future generations. These environmental changes are caused by inequitable and unsustainable production and consumption patterns that aggravate poverty in many regions of the world.

We believe that urgent actions are needed to address these fundamental problems and revense the trends. 'Sublimation of human population, adoption of environmentally sound industrial and agricultural technologies, reformation, and ecological restoration are cucial elements in creating an equilable and sustainable future for all humankind in harmony with nature.

Universities have a major role in the education, research, policy formation, and information exchange necessary to make these goals possible. Thus, university leaders must initiate and support mobilization of internal and external resources so that their institutions respond to this urgent challenge.

WE, THEREFORE, AGREE TO TAKE THE FOLLOWING ACTIONS:

- Use every opportunity to raise public, government, industry, foundation, and university awareness by openly addressing the urgent need to move toward to environmentally sustainable for three.
 Encourage involvement of government, foundations, and industry in supporting interdireciphiasy research, education, policy formation, and information exchange in environmentally sustainable for the spand work.
- 2) Encourage all universities to espage in edecation, research, polys formation, and information exclusion. In order the second seco
- 3) Establish programs to produce expertise in environmental management, sustainable economic development, population, and related fields to ensure that all university graduates are environmentally literate and have the awareness and understanding to be ecologically responsible citizens.
- 4) Create programs to develop the capability of university faculty to teach environmental literacy to all 9) Work with national and international organizations to undergraduate, graduate, and professional students. promote a worldwide university effort toward a
- establishing institutional ecology policies and practices of resource conservation, recycling, waste reduction, and environmentally sound operations.
- 5) Set an example of environmental responsibility by
- promote a worldwide university effort toward a sustainable future. 10) Establish a Secretariat and a steering committee to continue this momentum, and to inform and support each

sustainable future.

development

with community and nongovernmental organizations to assist in finding solutions to environmental problems.

environmental practitioners to develop interdisciplinary approaches to curricula, research initiatives, operations,

and outreach activities that support an environmentally

teaching about population, environment, and austainable

8) Establish partnerships with primary and secondary schools to help develop the capacity for interdisciplinary





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Green Committee (Green-2) 94 Members

PLANNING COMMITTEE Tom Lowe, Co-chair James Eflin, Resource John Vann, Resource

STEERING COMMITTEE Planning Committee and Subcommittee Chairs

186 Action Items Operational Structure

Subcommittee Chair Dave Ferguson, Resource Person Donna Biggs, Burris Ron Bonham, Community Member Hugh Brown, NREM Kay Hodson-Carlton, Nursing Kevin Kenvon, Business Affairs Jim Shasky, Telecommunications Gordon Stagge, Community Member Phyllis Yuhas, Community Member

THE UNIVERSITIES Phil Repp. Art and VIA Subcommittee Chair Dave Ferguson, Resource Person

Vichael O.Hara, Theater and Dance Les Smith, Landscape Architecture Tom Smith, Facilities Planning

THE SCHOOLS

John Motloch, Landscape Architecture Subcommittee Chair John Vann, Resource Person Shireen DeSouza, Biology Jim Kirkwood, Industry and Technology Amy Kress, Community Member Bobby Malone, Educational Leadership Larry Smith, Elementary Education

THE EXEMPLARS

Mike Planton, Facilities Planning Subcommittee Chair John Vann, Resource Person Martha Hunt, Landscape Architecture Cheryl LeBlanc, Biology Douglas Naffziger, Management Les Richardson, Facilities Peter Tallman, Student Ted Wolner, Architecture

THE STUDENTS

Subcommittee Chair John Vann, Resource Person Kemuel Badger, Biology Gary Dodson, Biology Andrew Slack, Geography Nicole Wolf, Student

THE PRACTITIONERS

Ray Montagno, Management James Eflin, Resource Person John Craddock, Community Member Thomas Frisbie-Fulton, Facilities John Pichtel, NREM Phil Tevis, Community Member Gwen White, Accounting

THE FUNDERS

Jim Flowers, Industry & Technology Subcommittee Chair Dave Ferguson, Resource Person Steve Anderson, Community Member Jeff Grigsby, Geology Mahfuza Khatun, Physics Kristi Koriath, Academic Research and Sponsored Programs Tom Lauer, Biology Paul Wohlt, Anthropology

THE ORGANIZATIONS

Subcommittee Chair James Eflin, Resource Person Alfredo Fernandez, Architecture Gene Frankland, Political Science Kyama Kabadaki, Sociology Nihal Perera, Urban Planning Holly Truemper, Student

THE FACULTIES

James Eflin, Resource Person William Bock, Physiology & Health Charles Jones, Teaching & Learning Aimee Jovaux, Art Tim Lvon, NREM George Smith, Landscape Architecture





Council on the Environment (COTE)

University Area Representatives

Administrative Support

Mr. Robert Koester Dr .James Eflin Mr. Justin Miller Dr. John Motloch Dr. John Vann Ms. Peggy Weis Mr. Jeff Culp

Student Members

Ms. Vivian J. Bogue Graduate Student Ms Carissa Hipsher Undergraduate Student Ms. Beth Cahill Student Government Ms. Alessandra Strickland Undergraduate Student

Council Chair Resource Person Green Development Specialist Resource Person Green Initiatives Coordinator Office Support

Web / Technical Resources Manager

Dr. David Conception College of Sciences and Humanities Mr. Vernon Draper Information Technology Dr. Michelle Dudka **Teachers College** Dr. Gene Frankland College of Sciences and Humanities Mr. Kevin Kenyon **Business Affairs** Intercollegiate Athletics Dr. Karin Lee Mr. Michael Mayfield Contract Faculty Academic Affairs Dr. Robert Morris Dr. Sallv Mvers College of Fine Arts College of Sciences and Humanities Dr. Klaus Neumann Ms. Amy Reed University Advancement Dr. Marv Annette Rose College of Applied Sciences and Technology Ms. Ro Anne Royer Engle Student Affairs Mr. James Shimkus University Libraries Ms. Shervl Swinalev College of Communication, Information & Media College of Business Dr. Gwendolen White College of Architecture and Planning Mr. Ted Wolner

Community Members

Mr. Barry Banks Ms. Betty Brewer Mr. Jon Creek Mr. Richard Shelton Dr. Warren Vander Hill Red-tail Conservancy. Inc. Minnetrista Cultural Center Sierra Club **Ball Memorial Hospital** Founder, Emeritus



2008 AASHE STARS

(Unit-Level Sustainability Plans)

Education and Research

Co-curricular Education Curriculum Research



Planning & Administration

Coordination and Planning Diversity and Affordability Human Resources Investment Public Engagement

Operations

Buildings Climate Dining Services Energy Grounds Purchasing Transportation Waste Water



2010-14 GRI

Global Reporting Initiative

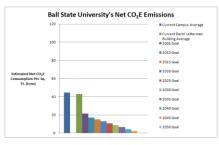




LEED









2006 ACUPCC

The Founding Members of the Presidents Climate Commitment Leadership Circle

Loren Anderson, President Pacific Lutheran University

Michael Crow, President Arizona State University

Nancy Dye, President Oberlin College

Jo Ann Gora, President Ball State University

David Hales, President College of the Atlantic The Founding Members of the Presidents Climate Commitment Leadership Circle

Loren Anderson, President Pacific Lutheran University

Michael Crow, President Arizona State University

Nancy Dye, President Oberlin College

Jo Ann Gora, President Ball State University

David Hales, President College of the Atlantic

Bernard Machen, President University of Florida

Gifford Pinchot III, President Bainbridge Graduate Institute

Kathleen Schatzberg, President Cape Cod Community College

Mary Spilde, President Lane Community College

Douglas Treadway, President Ohlone College

Darroch Young, Chancellor Los Angeles Community College District

Paul Zingg, President California State University, Chico American College & University Presidents Climate Commitment

December 10, 2006

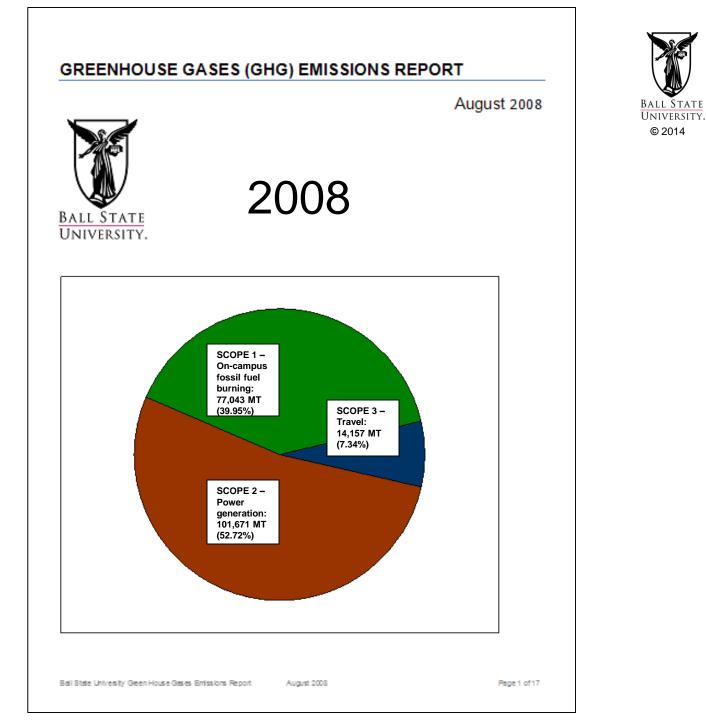
Dear Colleague,

We invite you to join us in becoming a charter signatory to the American College & University Presidents Climate Commitment, a pledge to take a leadership role in addressing one of the defining challenges of the 21st century—global warming. This letter is being sent to you because of your campus's leadership in many of the areas related to creating a healthy, thriving, just and sustainable world.

Like you, we are deeply concerned about the unprecedented scale and speed of global warming and its potential for large-scale, adverse health, social, economic and ecological effects. By signing the Presidents Climate Commitment we are agreeing to develop a long-range plan for our institutions that will reduce and ultimately neutralize greenhouse gas emissions on our campuses. In the process, we will educate the next generation of leaders and professionals and show our communities and other societal institutions that there are large competitive benefits to proactively engaging in this effort.

Modeled after the U.S. Mayors Climate Protection Agreement, the initiative seeks to identify at least 200 college and university presidents who will become charter signatories to the commitment at a major public summit in June 2007. We hope to get over 1,000 signatories by the end of 2009.

Enclosed is information about the program and how you can sign on to the commitment. A key document is a Letter of Intent that we hope you will sign in order to express your interest in joining us in this commitment. We also need to know, no later than January 19, 2007, if you would like to join the Leadership Circle and help shape the initiative and lead the effort to engage our peers in becoming charter signatories.

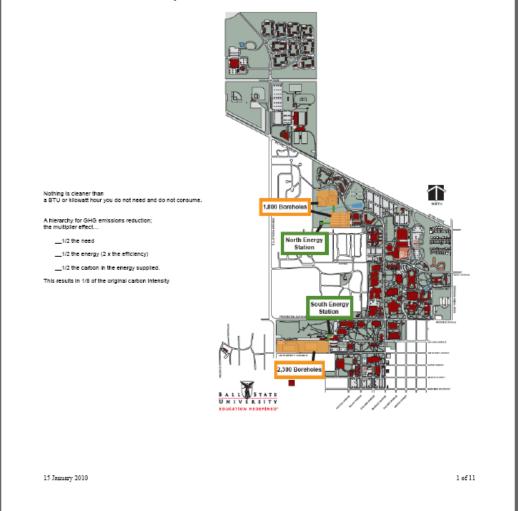


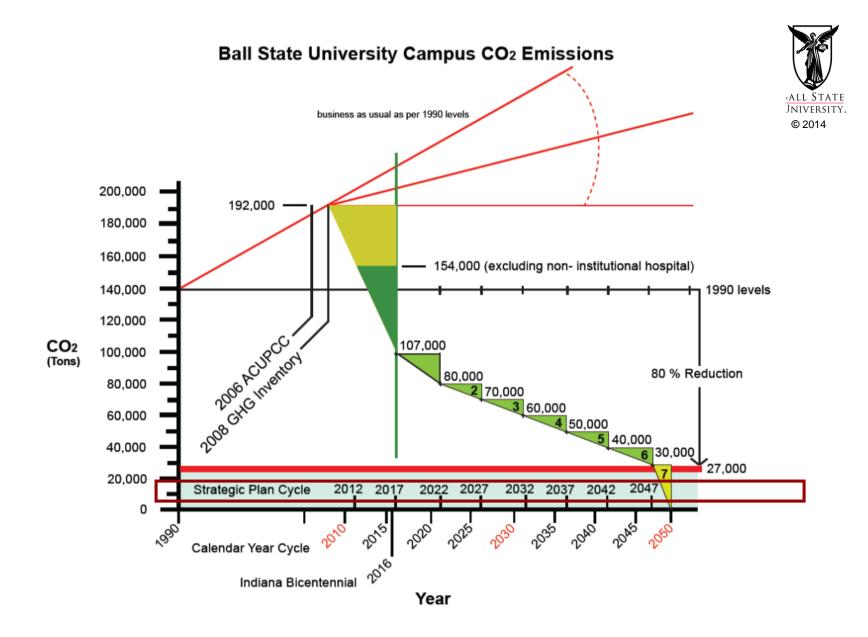
Ball State University Climate Action Planning at Ball State University A Climate Action Task Force Working Report



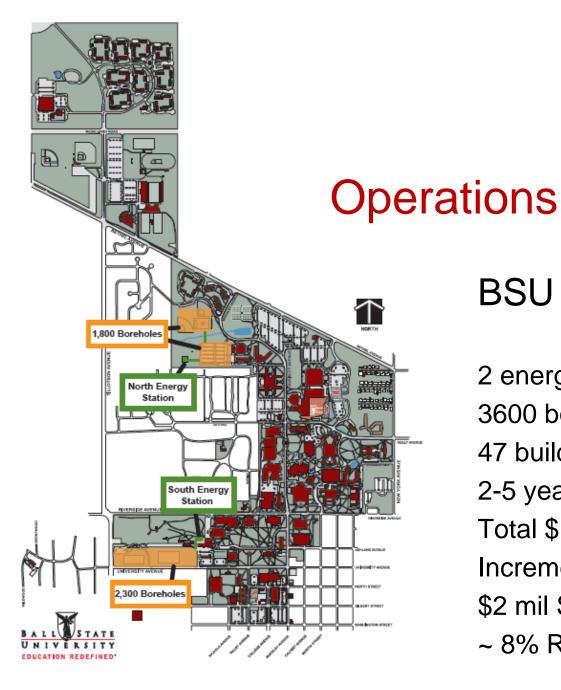
The Structure, Content and Implementation of the Ball State University Climate Action Plan: 2010-2050

An Executive Summary





Integrate GHG Reduction with Strategic Planning



BALL STATE UNIVERSITY. © 2014

BSU Geothermal

2 energy stations 3600 boreholes 47 buildings 2-5 year build out Total \$ ~83 mil Incremental \$25 mil \$2 mil Savings per Year ~ 8% ROI



Operations

1 2

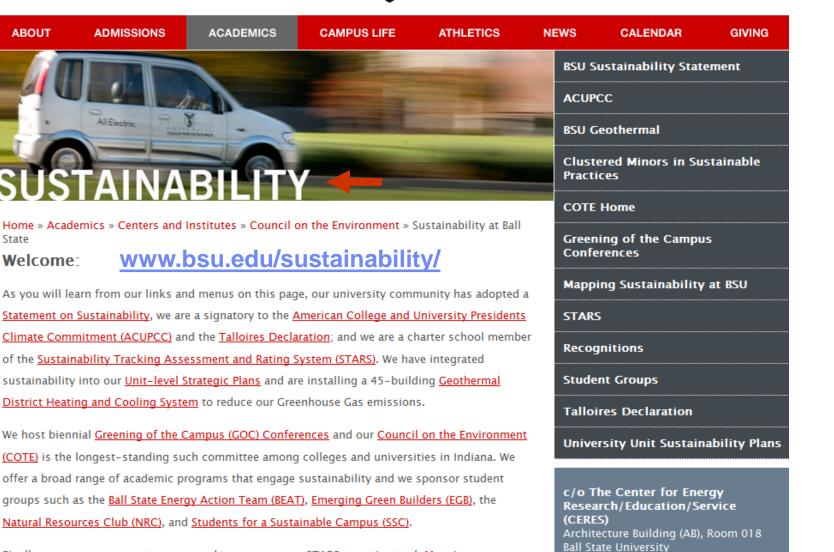
3

Information Transparency, Monitoring and Reporting
 Energy Conservation: Geothermal District H&C
 Energy Conservation: Information Technology
 Energy Conservation: Transportation
 Energy Conservation: Buildings
 Energy Conservation: Policies
 Electrical On-Site Solar-Photovoltaic (PV) Production
 Electrical Off-Site Wind-Energy Production

Electrical Off-Site PV Production

BALL STATE UNIVERSITY M EDUCATION REDEFINED





Finally, we encourage you to survey and/or use our new STARS reporting tool: Mapping Sustainability at BSU.

GO

Hours: Academic Year: 8 a.m.-5 p.m.

Muncie, IN 47306



Celebrate, Facilitate, Anticipate

Mapping Sustainability at Ball State University

Directions

Click on an icon in the toolbar below the map to filter categories

Click on an icon on the map to the right for more information

Click on the campus map below to return to homepage



'Get on the Map'

...useful in reporting-out your own good work and in finding that of other administrators, faculty, staff and students throughout the university community.

The organizational structure of icons for information display is that of the Sustainability Tracking Assessment and Rating System (STARS).