

Systemwide and Campus Sustainability Report to the Board of Regents



November 2011



UNIVERSITY OF MINNESOTA
Driven to DiscoverSM



UNIVERSITY OF MINNESOTA BOARD OF REGENTS POLICY

Page 1 of 2

Administrative
SUSTAINABILITY AND ENERGY EFFICIENCY

Adopted: July 9, 2004

Supersedes: (See end of policy)

SUSTAINABILITY AND ENERGY EFFICIENCY

SECTION I. COMMITMENT.

Sustainability is a continuous effort integrating environmental, social, and economic goals through design, planning, and operational organization to meet current needs without compromising the ability of future generations to meet their own needs. Sustainability requires the collective actions of the University of Minnesota (University) community and shall be guided by the balanced use of all resources, within budgetary constraints. The University is committed to incorporating sustainability into its teaching, research, and outreach and the operations that support them.

SECTION II. GUIDING PRINCIPLES.



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Systemwide Sustainability Report



University of Minnesota
Systemwide Sustainability
Goals • Outcomes • Measures • Process



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September 2009

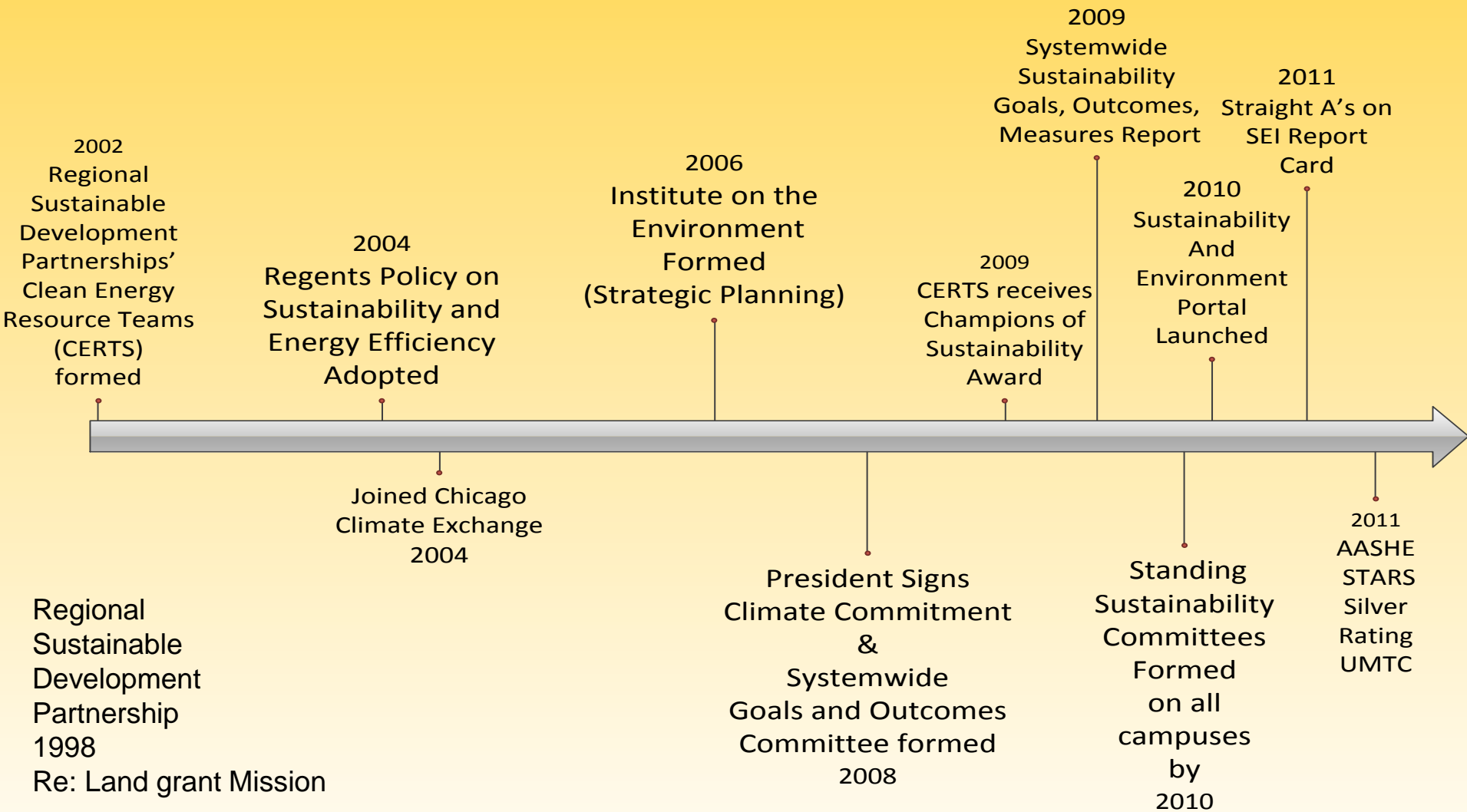
- Framed by 2004 Policy
- Systemwide Goals & Outcomes
- 95 Measures

http://www.uservices.umn.edu/sustainableU/assets/pdf/UM_Systemwide_Sustainability_Final_Report.pdf

Policy Guiding Principles

Leadership * Modeling * Operational Improvements * Energy * Research * Education and Outreach

Sustainability Milestones



Sustainability Matters Because...

- *Sustainability Pays*
- *Sustainability Unifies*
- *Sustainability Inspires and Transforms*



Sustainability Matters to Students

69% of Students
say a School's Commitment to the
Environment
Influences College Decisions

“College-bound students are increasingly interested in sustainability issues. Among 8,200 college applicants who participated in our spring 2011 ‘College Hopes & Worries Survey,’ nearly 7 out of 10 (69%) told us that having information about a school’s commitment to the environment would influence their decision to apply to or attend the school.” - Robert Franek, Princeton Review



Sustainability Matters to Faculty

2011 Twin Cities data reveals...

247

Faculty engaged in sustainability research

37

Academic departments involved in sustainability

73

Departments offer sustainability-related undergraduate courses



The Green Grid—And What Obama Can Do About It

How One Firm Is Helping People Keep Their Homes

Recession Diets—How to Stay Thin During Lean Times

TIME

Why We Need To See The Light About Energy Efficiency

BY MICHAEL BERNARD

ARCHITECTURE

TIME

Back on Campus

Science, student services, and sustainability at the U

COVER STORY: TEACHING AND TIGHT BUDGETS

BRAIN CIRCUITS
New Clues to Mental Illness

INSTANT NETWORKS
Co-Apprentice Communications

SCIENTIFIC AMERICAN

8 Wonders of the SOLAR SYSTEM

SPECIAL REPORT **Managing Earth's Future**
Solutions for a finite world

PLUS: The Science of Truffles

Balance from Bionic Ears

Harvard Business Review

September 2009

Taking Control of Your Market Space

W Chan Kim and Renée Mauborgne

HOW GREEN WILL SAVE US

SUSTAINABILITY: INDUSTRIAL

Why Your Next Business Model Must Be Green

Ran Kormanik, J.K. Pappal, and M.K. Venuganesh

6 Energy Investments to Watch

BILL CLINTON on Creating Value in an Economic Crisis

Food Logistics

www.foodlogistics.com

How Green Are Your Returnables?

Twenty That Make a Difference

Going Green

With Fresh ideas

Food companies are finding that business processes and investments that are ecologically viable are also economically beneficial. Page 24.

PLUS: STATUS REPORTS

- EMS Leads to Cleaner Highways
- Meet Green Initiatives With AGRS

GREEN GUIDE

NATIONAL COOPERATIVE THE RESOURCE FOR CONSUMERS WHO WANT TO SAVE \$50 A WEEK

Green Made Simple

10 BEST WAYS TO REDUCE YOUR CO₂ GO GREEN SAVE \$50 A WEEK

FREE YOUR HOUSE OF TOXIC CHEMICALS

SAME CAR, BETTER GAS MILEAGE

EAT SAFER FOOD WHAT TO LOOK FOR

COSMETICS INGREDIENTS THE 12 WORST

Now! GREEN CLEANING

Green Cleaners

Healthy to Use, Easy to Make

SEPTEMBER 28, 2009

New week

THE GREENEST BIG COMPANIES IN AMERICA

AN EXCLUSIVE RANKING

PLUS: COPENHAGEN OR BUST?

BY GREGORY BROWN

ALSO:

- PLAYING THE RACE CARD BY RINA KELLY
- RALPH NADEAU'S NOVEL BY SEBASTIAN WELLS
- WHY TWITTER IS STUPID BY DANIEL LYONS

MUST-HAVE ECO GIFTS • EARTH-FRIENDLY CHOCOLATE • FIGHTING BIG GAME

SPECIAL ISSUE

Forbes

ENERGY GENIUS

WINNERS AND LOSERS IN THE RACE FOR FUEL

STEVE FORBES ON OBAMA'S \$150 BILLION ENERGY PLAN

THE 100MPG HYBRID

THE CARBON-FREE CITY

HOW TO CASH IN ON GREEN TAX CREDITS

SHELL'S RADICAL DEEP-SEA RIG

SAUDI ARABIA'S NEXT ACT

THE LITHIUM GOLD RUSH

BRIGHT IDEAS FROM: ANDY GROVE, RICK WAGONER, BRIAN SCHWEITZER

DR. ROBOTO

A Gallery of Amazing Medical Machines

10 SECRETS of the Apollo 17 Moon Landing

POPULAR SCIENCE

THE FUTURE OF ENERGY

POWER PLAN

HOW TO BUILD A GREEN HOME

EXTRAORDINARY SOLUTIONS FOR A CLEAN-ENERGY CENTURY

ICELAND'S GEOTHERMAL BAILOUT

THIS IS A 3-D COVER!

POPSCIENCE MAGAZINATION

THE GREEN LIFESTYLE MAGAZINE

G Eco-friendly architecture

How it's changing your street

Kylie Kwong

Zen foodie for spring eating

BIT'S THE BAILOUT

Our form guide to the federal election

LCD vs PLASMA TVs

Which is greener?

CROC WRESTLING

A hands-on eco-experience

EMBODIED ENERGY

The facts you should know!

Toxic-free Spring cleaning

Live greener

40 ENVIRO SHOPPING IDEAS

For a lifestyle that won't cost the earth

The Economist

What I've learned An essay by Tony Blair

Activist shareholders

Another day, another new explainer

How Chechnya changed Russia

Cleaning up

A 15-page report on how business is tackling climate change

THE ENVIRONMENTAL MAGAZINE

E

Great Green JOBS

10 Ways to Work for the Planet

SAVING SHARKS

Page 14

EXCLUSIVE! INSIDE THE STEROID PIPELINE STING

SP's Luis Fernando Llosa and L. Jon Wertheim, on the scene for the Florida raids, report on the ongoing investigation that will rock sports

Sports Illustrated

SPORTS AND GLOBAL WARMING

As the Planet Changes, So Do the Games We Play

Time to Pay Attention

PLUS: AGGIES ON A RUN

BARRY ZITO MEETS BARRY BONDS

THE HEART OF WRESTLING

BY BILL WALSH'S WORLD

THE GREEN ISSUE

Billboard

GREENING THE BILLBOARD

ADVERTISING

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The 50 Worst Things About the Internet

Family Guy

Snappy Answers to Stupid Questions

MAD GOES GREEN!

ADVERTISING

Sustainability Matters in the “Real World”

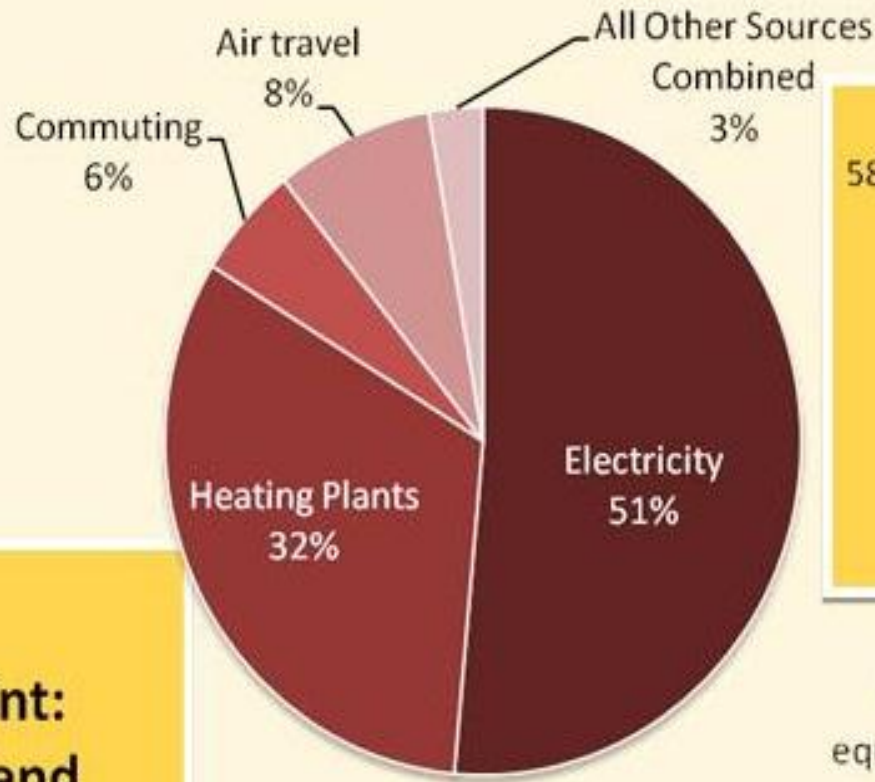
“The more closely an academic institution can mirror the real world...the more effective and relevant they will be.

...the University of Minnesota is unique and on the right path – because I view their sustainability initiatives as much more comprehensive and integrated than the majority of schools we encounter.”

- Neil Hawkins, Dow’s Vice President of Sustainability and EH&S



Sustainability Pays



**Systemwide
Carbon Footprint:
Sources and Trend**

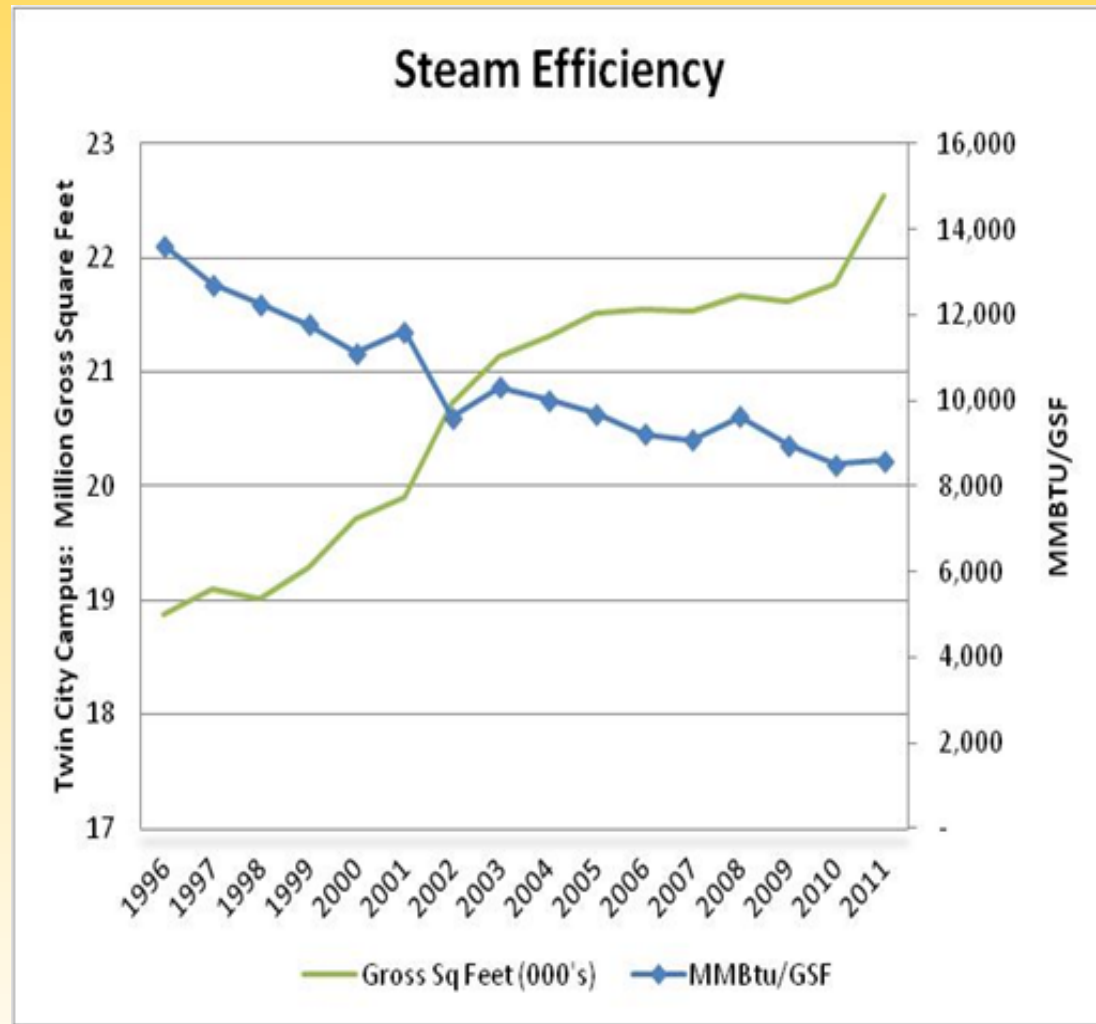
*Carbon footprint expressed in equivalent units of carbon dioxide



Sustainability Pays

Since 1996, UMTC:

- Campus Space
↑ 3.7 Million Sq. Ft.
- Steam Efficiency
↑ 37 Percent
- Cumulative Avoided
Costs of \$76 Million



Sustainability Pays

Conservation and Waste Reduction

- Annually recycled 6 million pounds and reduced costs by \$180,000



Building Local Economies

- Food from local providers (2010)
 - 183,000 pounds local produce
 - 920,000 gallons local dairy
 - 22,000 pounds local bakery
- \$200,000 Corn Cob Contract for Biofuel



Sustainability Pays



Campus Challenge home | Con

About the challenge

News

Events

Photos and videos



Campus Energy Challenge
is on!

flip it off
Save your energy for later

Join us to make
a difference on
campus.



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Sustainability Unifies

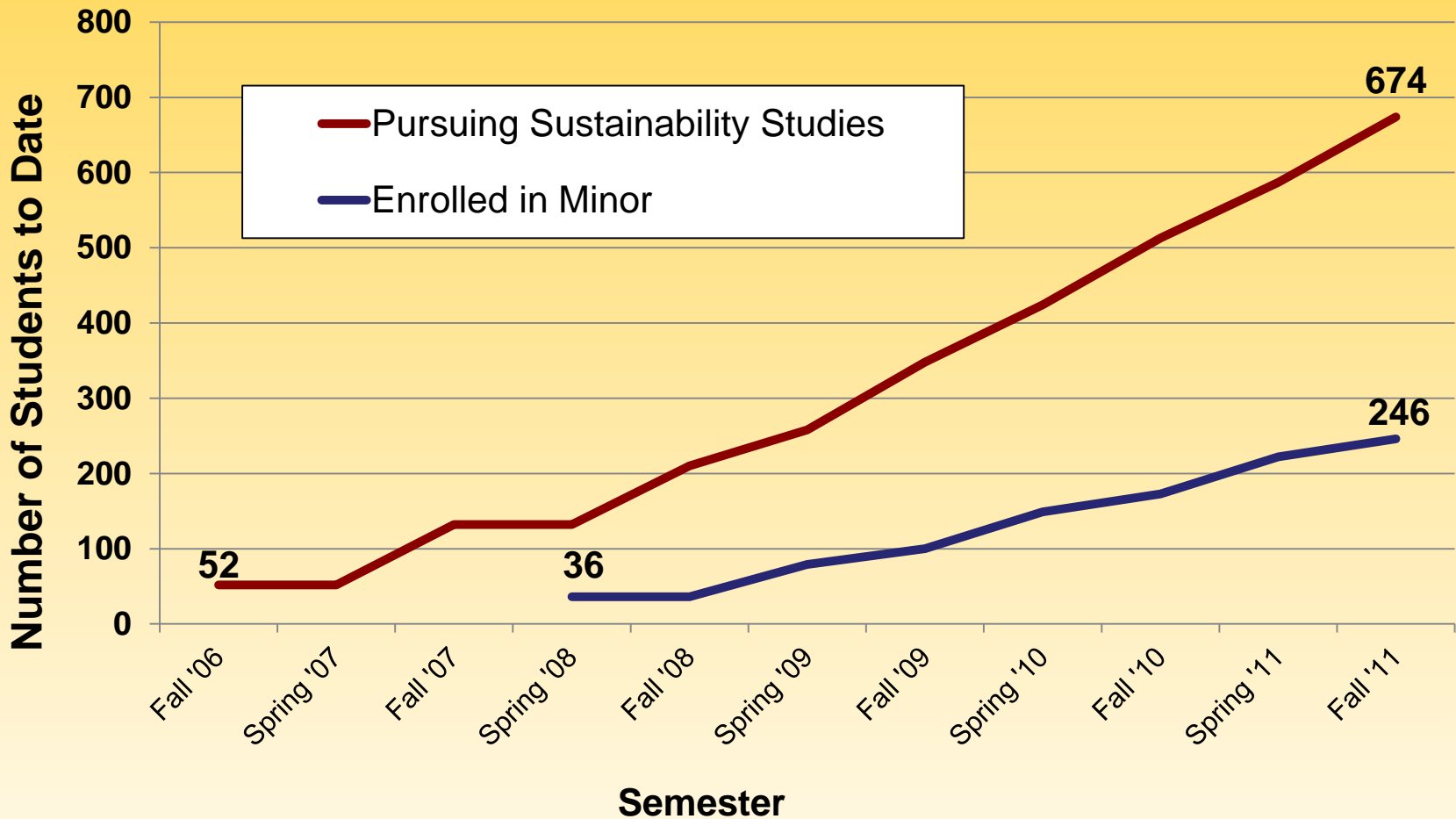
Student Engagement Leadership Workshop

“This inspired me to think about the U as a whole system and I want to make sure that if students on one campus are working on a campaign or project, others could learn from them and utilize their resources.”

– Emma Wright, student worker and leader



Sustainability Unifies



Students Pursuing Sustainability Studies



Sustainability Transforms

Transforming Curriculum

The Graduate School
**OFFICE OF
INTERDISCIPLINARY
INITIATIVES**

[About OII](#)

[Funding](#)

[Collaborative
Leadership](#)

[Graduate](#)


[OII Home](#) : [Groups](#) : [Current Groups](#)

Graduate Sustainability Education Network

Description

The Graduate Sustainability Education Network of University of Minnesota (the "Network") is focused on exploring curricular and programmatic opportunities for graduate education in sustainability. The Network brings together education to

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COLLEGE OF DESIGN



SALOVICH Zero+ Campus Design Project integrating carbon, energy, and water management strategies toward zero- and net-positive design

Bike Pasture



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Sustainability Transforms

Transforming Campus



Nearly 2 Million Sq. Ft.
shown to meet Green Building Standards



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Sustainability Transforms

Transforming Campus
....a Living Laboratory



Nature Nook
Raingardens
Edible Landscape
Organic Gardens
Renewable Energy Projects



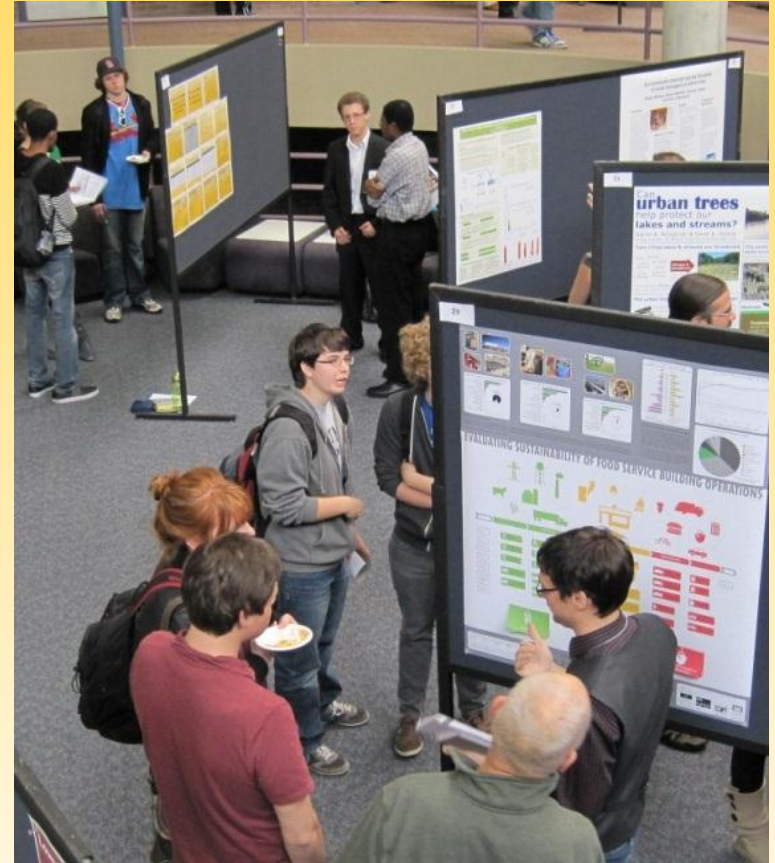
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Sustainability Inspires and Transforms

- Crookston
 - Funds for undergraduate research projects
 - Faculty evaluating nitrogen gas release from soils with NWROC
- Duluth
 - Sustainable Agriculture Project (SAP@UMD)
 - Permaculture & ethonobotanical plantings
 - Apple cultivation
 - Edible campus gardens
 - Natural Resources Research Institute
- Morris
 - Faculty investigating organic versus conventional dairies
 - Sustainable themed theater and art
 - Investigations into effects of climate change on the prairie
 - Renewable Energy programs at West Central ROC
- Rochester
 - Developing research agenda
 - Focus on teaching and learning
- Twin Cities
 - Institute on the Environment (IonE) including forty-six fellows from around the University
 - Returning \$20 in external funding for every \$1 in University funds invested
 - Renewable energies – Concentrated solar, Wind Turbine
 - Discovery Grants to catalyze new research
 - Sustainable Polymers, Economics, Global Land Use
 - Water Resources Center protecting Minnesota's waters
 - Psychology - Green Behaviors
 - Federal grants from National Science Foundation, Department of Energy and others



Sustainability Inspires and Transforms



FRONTIERS →
IN THE ENVIRONMENT



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Sustainability Inspires and Transforms

- Leadership
 - National Presence
- Best Practices
 - Throughout the University
 - With peer Institutions
 - Collaborate with businesses
- Recognitions



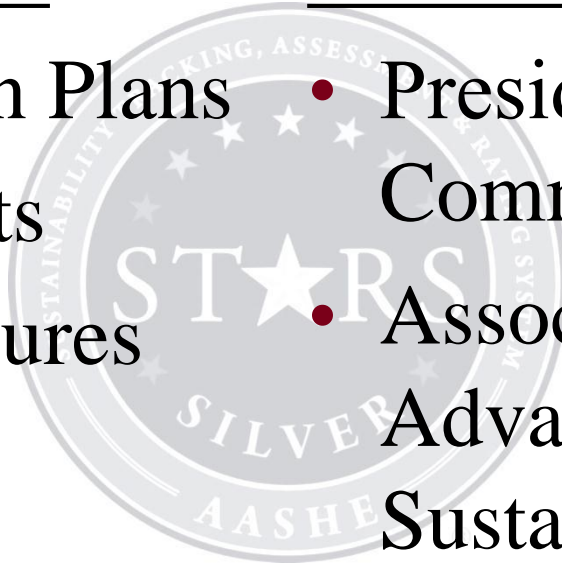
Sustainability Matters

Internal Measures

- Climate Action Plans
- Annual Reports
- Goals & Measures

External Measures

- President's Climate Commitment (ACUPCC)
- Association for the Advancement of Sustainability in Higher Education (AASHE STARS)
- Surveys



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Thank you!



President Kaler driving Centaurus II Solar Car-Built by Students!



Sustainability



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