



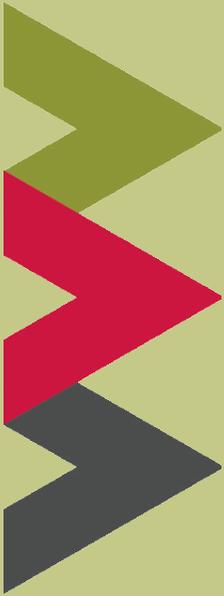
SUSTAINABILITY



THE OHIO STATE UNIVERSITY

Ohio State Sustainability Fund

FY 2016
ANNUAL REPORT



Overview

The Ohio State Sustainability Fund was established to support improvement of the sustainability profile of the university – through projects that improve the efficiency of campus operations and lead to increased understanding or more sustainable behaviors in the university community.

The Office of Energy and Environment (OEE) manages the Ohio State Sustainability Fund (OSSF). The OSSF has been renewed with \$1 million from the Office of Business & Finance annually since 2010. For FY 2016, the OSSF provided approximately \$1.7 million in project support, which included funds returned from previous projects that were delivered below the committed amounts and committed projects that were delayed beyond the fiscal year calendar. All projects are presented to the President and Provost's Council on Sustainability (PPCS) for discussion prior to any final funding decisions.

The OSSF committed funds for nine projects in FY 2016, ranging from \$17,000 to assist Ohio State's Lima campus with the acquisition of a hybrid-electric vehicle, to \$500,000 in support of the new compressed natural gas station currently under construction. For the first time, a grant was also given to an academic unit to hire a post-doctoral researcher. In this case, the Center for Ethics and Human Values was granted \$144,000 to enable continued programming designed to foster a campus-wide discussion about the ethics of sustainability.

As in the past, many of the OSSF investments are expected to result in quantifiable operational cost savings for the university. OEE is pleased to report that to date, investments of the OSSF are generating a cumulative annual cost savings in excess of \$1.3 million – effectively netting out the annual renewal of the OSSF and returning a financial net positive result to Ohio State.

However, given the on-going consideration of a Comprehensive Energy Management Project (CEMP), the scope of which would include the funding of energy conservation measures (ECMs) on campus, a decision was made not to focus on funding support from the OSSF on ECM-type projects until the future of CEMP is more clear. Instead, efforts were made to maximize the impact of the fund and broaden the advancement of sustainability on campus in other areas. This reduced the number of projects funded in FY 2016, which had a return on investment relatively easy to calculate in the short term.

Project Funding Guidelines

Guidelines for the eligibility and selection of projects the OSSF supports are summarized below. Proposals are reviewed and considered individually and in light of all other funded projects and pending proposals. Proposed projects must address the eligibility criteria below. The individual projects that best meet the eligibility criteria are then evaluated for funding support in consideration and comparison to all previously funded projects and pending proposals.

Eligibility guidelines: Individually, does the proposed project meet the following criteria:

- ▶ **Contribute to sustainability** – Projects improve the sustainability of campus operations and/or improve the sustainability awareness of campus populations.
- ▶ **Campus impact** – Projects are restricted to Ohio State campuses and must be led by a staff or faculty member.
- ▶ **Existing university operating budget** – Projects that are covered by an existing university operating budget are not eligible. Projects and project funding are not intended to be an alternative path to the normal annual budgeting process.
- ▶ **Partial funding support** – The Sustainability Fund should be used to seed, catalyze, or gap-fill funding on projects rather than be the sole funding source. The fund may be used to support the launch of a program but not for regular year-over-year programmatic funding.

Selection Evaluation Guidelines: Relative to previous projects and all other pending project proposals:

- ▶ **Feasibility** – Is the project likely to succeed? Has the project accounted for contingencies and major obstacles?
- ▶ **Sustainability Impact** – Does the project measurably improve or accelerate the sustainability of Ohio State's campuses or the realization of Ohio State's Sustainability Goals and priorities?
- ▶ **University Population Impact** – Does the project lead to increased understanding, greater engagement, or sustainable behavior change in the university community?
- ▶ **Economic Impact** – What are the financial benefits? What are the cost-savings, return on investment, or payback over time? Positive return on investment is strongly encouraged.
- ▶ **Innovation** – Does the project exhibit innovative technology, processes, or application of knowledge?
- ▶ **Institutionalization/Scalability** – Can the project become embedded in the University's routine operation? Does it need only start-up funding to then sustain itself over time? Can it be expanded to other campus locations if successful?

Project Selection

OEE receives and seeks project proposals from across the university including colleges, student groups, regional campuses, research centers, Student Life, Facilities Operations and Development, Wexner Medical Center, and Athletics. OEE continually reviews projects throughout each fiscal year.

Following a review by OEE, recommended projects are presented to the President and Provost's Council on Sustainability (PPCS) for further review and consideration. Projects receiving a concurrence from the PPCS are then awarded funding.





FY 16 Funded Projects

UNIVERSITY ORGANICS HAULING VEHICLE

\$345,000

Facilities, Operations and Development (FOD) requested funding to implement an organics hauling program at the Columbus campus. This program, once fully implemented, will divert approximately 10 tons/month of organic scraps from the landfill and will reduce the fees Ohio State currently incurs to haul organic waste from our four current food grinding locations on campus.

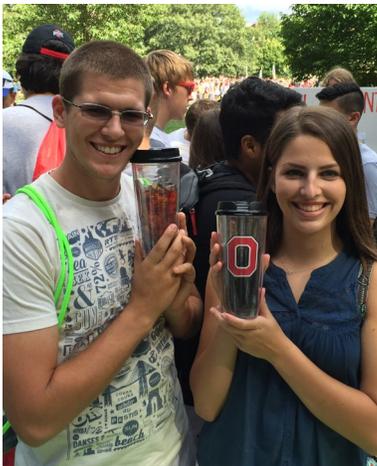
The funds were used to purchase organics totes, a vacuum truck, and collection equipment. With these items, it will allow the university to divert the 10 tons/month currently being sent to the landfill as well as expand the organics collection to include other feasible locations such as Morrill Tower and Thompson Library café.

Due to the estimated cost savings to university entities from this service, additional locations across campus have expressed their willingness to use the toter system.



SUSTAINABILITY GOALS ADVANCED BY PROJECT

- Achieve zero waste by 2025
- Achieve carbon neutrality by 2050
- Increase production and purchase of locally and sustainability sourced food



REUSABLE HOT/COLD BEVERAGE CUP PROGRAM

\$200,000

The project provided every residence hall student on a dining plan (approximately 15,000) with a customized reusable hot and cold beverage cup with their name on it. Each cup has an RFID chip that allows the student the opportunity to purchase an unlimited cold beverage plan.

The project contributes to the sustainability of campus operations and improves the sustainability awareness of campus populations. Students are highly encouraged to use the cups, significantly reducing the use of the current non-bio-degradable disposable cups.

The program also has significant financial savings in reducing the number of disposable cups and bottled beverages purchased as well as producing less trash. This project is truly innovative and the first of its kind in the country.



SUSTAINABILITY GOALS ADVANCED BY PROJECT

- Teach sustainability in innovative ways in and out of the classroom
- Foster sustainability culture on and off campus
- Achieve zero waste by 2025
- Achieve carbon neutrality by 2050

OHIO STATE BREAKS GROUND ON CNG FUELING STATION

\$200,000

Partnership with City of Columbus supports sustainability efforts

In July, The Ohio State University broke ground on a new Compressed Natural Gas (CNG) fueling station — the first of its kind for an Ohio university.

The station will serve the university's Department of Transportation and Traffic Management, as well as the City of Columbus, and may be utilized by additional university, state agency and central Ohio municipalities.

President Michael V. Drake noted that resource stewardship is a critical part of our quest to be a global leader in sustainability.

"I'm proud of this step forward to a more economical alternative fuel for our bus system, and I look forward to exploring how the rest of our university fleet, including cars and vans, can be powered by CNG," he said.

Ohio State's Campus Area Bus Service (CABS) will fuel a portion of its fleet at the \$3 million CNG station, with long-term plans to transition all CABS buses and other fleet vehicles to alternative fuel models. The university currently operates four CNG buses and will add six more by October 2017.

The CNG fueling station highlights the university's commitment to providing sustainable transportation solutions for its campus community. The addition of a fueling station comes one year after Ohio State welcomed a university bike share system to its Columbus campus. Construction began in July, and the station is expected to be operational by early 2017.

The City of Columbus will also be able to fuel fleet vehicles at the university's station.

The initiative aligns with Ohio State's continued efforts to advance sustainability across campus and throughout the community, including strategic sustainability goals developed by faculty, staff and students to enhance and expand policies, operations and practices.

Ohio State partnerships with sustainability focused entities across Central Ohio include the Mid-Ohio Regional Planning Commission, COSI and the Mayor's Green Team.



SUSTAINABILITY GOALS ADVANCED BY PROJECT

- Encourage local and global sustainability partnerships
- Teach sustainability in innovative ways in and out of the classroom
- Reduce carbon footprint of university fleet
- Achieve carbon neutrality by 2050





Sustainability Fund Projects

FY 2013-2016

2013

	Funding	Savings/Year
Chadwick Arboretum – Student worker	\$10,880	NA
Helium Processing/Recycling Lab	\$75,000	NA
Campus-wide Energy Efficiency Project – A&E consultant	\$50,000	NA
Smith Lab – lighting retrofit	\$150,000	\$54,000
OSU Earth Day event sponsorship	\$5,000	NA
AASHE STARS – Audits for regional campuses	\$27,100	NA
Howlett Hall Green Roof – funding match	\$60,000	\$10,000
Bevis Hall – Digital controls and VFD retrofits	\$132,405	\$65,340
Mount Hall – Digital controls and VFD retrofits	\$141,300	\$68,480
Scott Hall – Digital controls and VFD retrofits	\$129,065	\$46,230
Pressey Hall – Digital controls and VFD retrofits	\$155,142	\$63,390
Mirror Lake Improvement Study	\$50,000	NA
Stone Lab – windows and lighting retrofit	\$60,000	\$10,909
Stone Lab – solar array	\$100,000	\$3,500
Chadwick/Howlett Hall Green Roof – supplement	\$60,000	NA
Ohio State University Marching Band – iPad projects	\$25,000	\$8,500
FY 2013 Totals	\$1,230,892	\$330,349

2014

	Funding	Savings/Year
Olentangy River Restoration Project	\$50,000	\$7,600
Zero Waste Program - Schottenstein Center	\$50,000	NA
Townsend Hall – Digital control upgrade	\$68,000	\$30,320
Drinko Hall – Digital control upgrade	\$129,591	\$78,630
Agricultural Engineering Bldg – Digital control upgrade	\$146,759	\$50,220
Bolz Hall – Energy conservation measures	\$39,615	\$8,246
Mirror Lake – Well drilling and testing	\$15,000	\$33,182
FY 2014 Totals	\$498,965	\$208,198

2015

	Funding	Savings/Year
Clean Fuels Ohio - Compressed Natural Gas Station	\$10,000	NA
Mendenhall Lab - Energy conservation measures	\$191,108	\$118,754
Hagerty Hall - Energy conservation measures	\$20,184	\$62,915
Hitchcock Hall - Energy conservation measures	\$26,600	\$22,810
Caldwell Lab - Energy conservation measures	\$63,147	\$40,529
Drinko Hall - Energy conservation measures	\$150,877	\$71,670
Ohio State Bicycle Sharing System	\$200,000	\$28,125
New Recycling Panels for Recycling Bins	\$26,000	NA
FY 2015 Totals	\$687,916	\$344,803

2016

	Funding	Savings/Year
LED lighting for B. Davis, J. Owens, and Buckeye Field Stadiums	\$150,000	TBD
Recycling Infrastructure Expansion and Standardization	\$150,000	NA
University Organics Hauling Vehicle	\$345,260	TBD
CNG Filling Station – Construction Budget Support	\$500,000	NA
Center for Ethics and Human Values – Sustainability Project	\$144,000	NA
Collaborative to Reduce and Redirect Consumer Food Waste	\$27,500	NA
Reusable Hot/Cold Beverage Cup Program	\$200,000	TBD
AASHE STARS – Carbon Footprints for Regional Campuses	\$18,000	NA
Ohio State-Lima Campus Hybrid Electric Car	\$17,000	NA
Hot Water Pipe Upgrades	\$171,000	NA
FY 2016 Totals	\$1,722,760	TBD

Fiscal Years 2010–2016 Summary	Total Investment	Annual Cost Savings*
74 funded projects	\$6.3 million	\$1.3 million

*** NOTE:**

Efforts to quantify the cost savings for 2016 projects are ongoing and will be reported as it becomes available.





Office of Energy and Environment

3018 Smith Laboratory
174 West 18th Avenue
Columbus, OH 43210

614-247-4762 Phone
614-247-4257 Fax

oeo.osu.edu