



STUDENT SUSTAINABILITY COMMITTEE

Funding Award and Acceptance Letter

February 14th, 2022

Project: **Effectiveness of feedback in reducing water and energy use in residence hall showers**

Dear **Vica Otrubina**,

On behalf of the University of Illinois at Urbana-Champaign Student Sustainability Committee (SSC), we would like to thank you for initiating a project that improves the sustainability of our campus. SSC is pleased to inform you that your project will receive **\$9,972.00** in grant funding.

In order to remain eligible for this award, you must agree to the following conditions:

1. The project must be completed within two years. A final report of all work completed should be provided to the SSC Assistant Director by **February 14th, 2024**.
2. Project status updates and detailed account statements must be provided at the end of each semester, in the method requested, until the project is completed.
3. The Contact Person will be individually responsible for all official communication and the execution of this agreement.
4. The awardee will take the appropriate steps to create a CFOP with OBFS UAFR University Accounting Services. The CFOP provided for this award shall strictly be used for the money awarded in this proposal.
5. Any substantial modifications to project scope, budget, or timeline must first be approved by SSC. These requests must be submitted in a formal letter to the Chair and the Assistant Director.
6. All projects will be expected to follow campus policies and procedures as well as any applicable State and Federal laws.
7. SSC reserves the right to revoke funding if the project does not comply with the terms and conditions outlined in this letter.
8. Any press releases or educational/promotional materials involving the project should acknowledge SSC funding.
9. Any signage involving the project or events surrounding this project should include SSC's logo and/or a statement of which fee funded the project. Projects must coordinate with SSC to ensure promotion appropriately highlights the SSC's contributions to the project.

If you agree to the terms and conditions for the funding, please sign on the designated line at the bottom of this letter. If you have any questions regarding these requirements please contact the SSC, at sustainability-committee@illinois.edu. You will be notified when the Institute for Sustainability, Energy, and Environment and Vice Chancellor for Student Affairs officially approves this project. Again, thank you for your interest in improving the sustainability of the University of Illinois at Urbana-Champaign. We look forward to working with you in the future.



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SSC Signatories

Jack Reicherts

Jack Reicherts, Chair
Student Sustainability Committee

Awardee Signatory

Victoria Otrubina

Vica Otrubina
Applicant

**Faculty or Staff Project Advisor
(for Student-Led Projects)**

Ashlynn S. Stillwell

Dr. Ashlynn S. Stillwell
Faculty/Staff Project Advisor

iSEE Signatory

Madhu Khanna

Dr. Madhu Khanna, Director
Institute for Sustainability, Energy & Environment

Student Affairs Signatory

Dr. Danita M. B. Young

Dr. Danita Brown Young, Vice Chancellor
Division of Student Affairs



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Project Information

Project: Effectiveness of feedback in reducing water and energy use in residence hall showers

Funding Source:

Cleaner Energy Technologies Fee (302571)

Sustainable Campus Environment Fee (303692)

Funding Amount: \$9,972.00

Receiving Campus Unit: Department of Civil and Environmental Engineering (Stillwell Research Group)

Unit Financial Contact: Dr. Ashlynn S. Stillwell

E-mail: ashlynn@illinois.edu

Project Description:

We aim to determine which methods of direct interaction with a consumer will result in significant behavioral change regarding water usage, specifically focusing on showers as events that consume significant water and energy resources. Literature often highlights the importance of financial incentives in promoting conservation behavior. However, students in residence halls lack the financial incentive to change shower durations, as they pay a flat fee for their living accommodations regardless of the water consumption. We aim to examine the effectiveness of feedback in promoting water conservation behaviors in University Housing showers. We will install individual shower meters across several residence halls and collect control data to represent baseline shower duration and water use. With this baseline, we will then implement various feedback methods to inform students regarding water usage and examine the behavior response through on-going shower water meter data collection. Different feedback approaches that have the potential to raise awareness regarding water conservation and introduce long-term behavioral change in our studied setting include:

- Competition among floors/wings to conserve water.
- Continuous individual reports on water consumption.



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- Representation of consumed water quantities in a more familiar manner, for example, equating gallons used to measures of electricity.
- Directly building a relationship between water usage and its effects on the environment; for example, previous research in hotels showed the effectiveness of a polar bear image on an icecap that melted during the shower duration (Staake et al., 2016)

Project deliverables include:

- Map of shower water meter installation
- Baseline and feedback-enabled shower flow and duration data
- Map and example images of implemented feedback methods
- Statistical models of feedback effectiveness

As we learn from the results of feedback in our study, system adjustments and additional meter installations are possible.

This proposal directly funds:

- 35 meters @ \$50/meter
- 3.6 months of graduate research assistant salary @ \$2284/month