

Student Sustainability Advisory Council Fall 2019 Recommendation Summary

Energy Subcommittee

1. Carbon Levy Program and Future Carbon Neutrality

Penn State University and the Office of the Physical Plant have made great strides in attempting to reduce greenhouse gas emissions by their set goal of 80% of 1990 levels by the year 2050. The implementation of a carbon levy program would continue this trend for the University as a whole. To elaborate, a carbon levy is a charge set within an institution based on their overall carbon emission levels. The Energy subcommittee recommends that a carbon levy be utilized at Penn State in reference to air travel. By simply placing a \$12 fee on all air travel sponsored by the University, that of which consists of 42,000 annual flights, the University could make just over \$500,000 annually that could be placed into a fund to supply monies for additional sustainable projects and student research related to sustainability. This type of carbon program has worked successfully at other schools around the county, including Arizona State University that utilizes an \$8 fee per flight and the University of California that taxes flights based on distance traveled.

- a. **Implementation of a carbon levy on all University air travel (~ \$12)**
- b. **Creation of “Sustainability Fund”**

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2. Spring 2020: Renewable Energy-Generating Gym Equipment

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Food and Waste Subcommittee

1. Sustainable Building- Construction and Budget

Penn State’s Five-Year Capital Plan allocates over 2.3 billion dollars to construction from 2018 to 2023. Needless to say, Penn State’s construction has a huge impact on all of our campuses. Sustainable buildings not only benefit our local environment, but also attract

prospective students and donors with their aesthetic beauty and attract top scientists and researchers. OPP has already made great strides to incorporate sustainability within the construction process. All high capital projects (over \$10 million) must be LEED certified, sustainability is a deciding factor when choosing an Architectural Engineering (AE) firm to design the building, and there is a group now looking at even more sustainable building frameworks to incorporate into a Penn State construction standard. However, after interviewing several design and construction staff, we have found areas of improvement in Penn State's process.

- a. Hire a new personnel at OPP specifically dedicated to sustainability within design and construction**
- b. Create a two week space before the RFP is put out to hold a key stakeholder's meeting**
- c. Weight sustainability to a standard number when choosing an Architectural Engineering Firm**
- d. Approve a pilot project for the most green building on campus**

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2. Food Waste Reduction

Food represents a common ground and bridge between the faculty, staff, students, and guests that are present on Penn State campuses. In order to balance the needs for food and the reduction of food waste on campus, stakeholders involved in food production need to communicate their initiatives and identify common goals. While some services are already in place, such as the Lion's Pantry, closing the loop of both food insecurity and waste requires increased transparency between groups that produce food through catering and events and initiatives that can redistribute that food in the community. In order to improve the communication between food providers on campus and identify areas where food insecurity can be reduced on campus, we propose a couple of initiatives that would mitigate waste and food needs.

- a. Creation of a University-wide Food Waste Committee that brings together stakeholders from Campus Dining, the Lion's Pantry, campus events and catering, and other student wellness groups**
- b. Reinstitution of a university chapter of the Food Recovery Network**

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3. Green2Go New Pilot Program

Currently, the majority of takeout meals in the Penn State dining commons use disposable Styrofoam containers. In order to save money, decrease our waste stream, and lessen our environmental impact, we recommend eliminating the Styrofoam containers and using only reusable Green2Go containers by the Fall of 2021. Leading up to this change we need infrastructure improvements including adding more drying space in dining common kitchens, collection points, and integrating Green2Go with the ID+ cards. Additionally, it is necessary to educate students and reach a greater than 50% involvement rate before the mandatory shift is implemented so as to mitigate students and parents' pushback. These education efforts may include working with Housing, Admissions, NSO, Digital Signage, and many other departments to ensure that all students are fully aware as to the benefits of the Green2Go program. Finally, in the year leading up to this shift, beginning next school year in the Fall of 2020, a waste tax will need to impose on the Styrofoam containers, to raise awareness that styrofoam is bad and to incentivise students to choose the reusable option.

- a. Eliminating Styrofoam and using only Green2Go containers by Fall 2021**
- b. Imposing a waste tax on Styrofoam containers in Fall 2020**

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Community Development Subcommittee

1. NSO Education Modules

To ensure a more sustainability driven environment at Penn State, implementing sustainability education is crucial. During the employment process at Penn State, video modules are utilized as the mode of education and training of the new positions being sought. In these education modules, one for sustainability would be a great fit; it would be an elementary level introduction assuming that the people watching have never been previously exposed to sustainability. In the future, other mandatory trainings such as those for club leadership members, a category for sustainability leadership and an introduction to an understanding of the Sustainable Development Goals would expose the club officers to what sustainability includes. Additionally, the amendment of club charters to include specific sustainability goals to align with the United Nations' Sustainable Development Goals would create a sense of accountability for the clubs and their members. Ultimately, the availability of a sustainability education course offered as a Health and Wellness requirement option is the goal, for sustainability includes the well being of each person and their ability to live freely. In addition to saving the university costs on resources due to a higher level of sustainability education, more students and faculty will be inclined to be members of the Penn State community because of commitments to sustainability.

- A. The creation and implementation of sustainability video modules in Penn State onboarding and NSO**
- B. Sustainability course offered as a General Health and Wellness requirement**

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Business Subcommittee

1. Reconsidering Corporate Waste

Penn State's University Park campus produces nearly 20,000 tonnes of solid waste yearly. This large amount of waste has not only a significant environmental impact, but also a significant economic impact--as the cost per ton to manage this waste varies from \$20/ton (for non-contaminated, sorted recycling) to \$70/ton (municipal waste) to \$250/ton (recycling with 20%+ contamination rates). In order to reduce this economic and environmental loss, the University should include considerations for waste production within the business contracts for external vendors. These considerations should be consider the amount of waste produced, recyclability, and recycling education needs of students. In doing this, the University enables innovation on the production side by offering incentives for producers to package and sell their products in a less waste-intensive way.

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2. Amending the Waste Streams of Beaver Stadium

Our beloved Beaver Stadium provides Penn State fans with experiences like no other. However, during every football game, it is littered with waste of which most is not disposed of in an appropriate waste stream to minimize environmental impacts. In addition, there are products sold in the stadium which come in packaging that has been shown to have negative environmental effects. Whether the solution to more effective waste streams lie in purchasing alternate materials from suppliers or evolving strategy to alter fan behavior within the stadium, action must be taken to amend the present method of waste management. Preliminary research concerning the benefits and trade offs of potential resolutions has been conducted and will be furthered into the following semester, resulting in a formal recommendation. Those resolutions can be seen in the outline below.

Measures to Explore:

- A. Improve existing waste/recycling receptacle infrastructure**
 - a. Additional signage & receptacles in addition to PSA efforts

- B. Launch of aluminum cups & bottles deposit, refill & return system**
 - a. Currently being tested at CU Boulder
- C. Initiate '100% compostable Beaver Stadium' in tandem with compost facility improvements**
 - a. Entails collaboration with purchasing & suppliers to select compostable packaging options
- D. Implement a standardized waste burning procedure**
 - a. Waste-to-energy technology predominantly used in Europe to mitigate landfill surplus

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