

## Purchasing, Waste, and Recycling (Zero Waste)

### Section 1: iCAP Goals Evaluation

#### Zero Waste Goals

*Going forward, campus should use a comprehensive Zero Waste Program to prevent waste at all stages of the life cycle of products — from reducing both the quantity and the environmental impact of products that the campus purchases, to encouraging the reuse of materials on campus, to recycling products that have reached the end of their service life. While the existing campus waste management system includes a sorting process to divert recyclables from the landfill waste stream at the campus scale, efforts to increase recycling (both on campus and around the world as students and employees travel throughout their lives) must ultimately rely upon the actions of individuals. Therefore, one of the aspirational goals of the Zero Waste Program is for individuals to take personal responsibility regarding the final destination of their own waste products. This program would apply and report waste-related measurements, establish baselines and accountability by campus unit for purchases and waste, implement training programs, and provide incentives. To raise awareness of waste reduction goals, this program should be communicated clearly to all academic and nonacademic units, employees, and students, including through events and competitions. Life-cycle analysis should be used to identify opportunities for improvement, and enforcement measures should be considered and implemented as appropriate.*

1. Is campus on track to meet its the goals by June 30, 2020? If not, what are some possible reasons why this is the case?
  - a. The campus is not on track “to prevent waste at all stages of the life cycle of products” by 2020. Outreach has not been sufficient. Also, in the case of purchasing there is no coordination among purchasing entities. This makes it difficult to implement large changes in purchasing policy.
2. Are the goals appropriate and achievable?
  - a. The goal is ambitious but appropriate. The goal of preventing waste at all stages of the life cycle of products is difficult to achieve. As mentioned, one obstacle is decentralization of campus purchasing.
3. Are the goals as listed above adequate to address the challenges of waste reduction on campus?
  - a. No. We need a better understanding of where the biggest points of waste are. (Identifying these may require cooperation across SWATeams.) Progress may require studies to identify and target most efficient waste reduction strategies.
4. Should we retain the existing goals as above, or should they be revised, amended, or eliminated?
  - a. The goal should be rewritten as follows:
    - i. “The UIUC campus should pursue a comprehensive Waste Reduction Program. This requires reducing both the quantity and the environmental impact of products we purchase, encouraging maximal reuse of materials, and recycling everything that can be recycled. The aim is to minimize waste and ideally there would be zero waste.

At the *campus* level all recyclables should be diverted from the landfill waste stream. Individual campus *units*, academic and nonacademic, are central to this Waste Reduction Program. All units should apply and report waste-related measurements, establish baselines and accountability for purchases and waste, and implement training programs that move the campus towards the goal of zero waste.

Our efforts must ultimately rely on the actions of *individuals*. We are mindful of the impact of the actions of each individual, both on and off campus and, in the case of our students, long after they graduate. We would like to promote the idea of individuals taking responsibility for the purchase of the products they use and for the final destination of any waste they produce.

This overall campus goal and the detailed objectives for waste reduction should be communicated clearly to all campus units and to all employees and students. We need to identify opportunities for improvement and to suggest events, competitions, videos, announcements, and incentives to promote waste reduction.”

5. Are there any additional comments about this iCAP Goal?
  - a. The long-term goal of Zero Waste goal should be taken very seriously. What is practical at present, however, is a very considerable reduction in what goes into the landfill, a large increase in recycling, and major changes in purchasing.

## Section 2: iCAP Objectives Evaluation

**Objective 6.1: By FY17, environmental standards will be applied to purchases of office paper, cleaning products, computers, other electronics, and freight/package delivery services. At least 50% of purchases in these categories will meet campus standards by FY20, and 75% by FY25.**

1. Is campus on track to complete this objective by June 30, 2020? If not, what are some possible reasons why this is the case?

It does not appear that at least 50% of office paper, cleaning products, computers and other electronics, freight/package delivery services, and other items of campus purchases will meet campus standards by FY 20 unless that is a significant change in purchasing, such as purchase centralization. For example, Objective 6.1 above states that 50% of office paper purchased will have a recycled content of 30% by FY20 but the percentages are not increasing sufficiently. In 2013, 2015, 2016, 2017, and 2018, the levels of recycled content paper purchased were: 26%, 19%, 24%, 19%, and about 30%, respectively. Therefore, it appears unlikely that the campus will meet the 2020 goal of 50% of office paper being purchased with a recycled content of 30% even though there appears to have been a large increase in 2018. The decentralized system of purchasing across the campus is a possible obstacle to progress, because it is difficult to influence individual decisions. The campus is in the process of reforming paper purchasing so that F & S will buy office paper with the mandated 30% recycled content in bulk and distribute the paper to individual users and departments. This should result in better compliance with campus standards, cost savings, and uniform purchasing. Departments would then order the paper from F & S instead of an outside vendor, unless there are special printing needs requiring finer paper. It is recommended that the campus continue working on centralizing purchasing processes to achieve campus standards by FY20 and FY25. In addition, the iBuy website is being modified to include more visible “Sustainability Approved” logos and descriptions, while also moving sustainable (and financially feasible) products to the top of the item lists, such as office paper with recycled content. These changes should facilitate meeting campus standards and are encouraged by the Purchasing, Waste, and Recycling SWAT Team.

2. Does this objective adequately work toward addressing the goals outlined in Chapter 6 of the iCAP?

This objective does work towards the goals outlined in Chapter 6. However, based on purchasing data for the last five (5) years it appears that centralized purchasing needs to be implemented to achieve the iCAP goals of sustainable purchasing. The goal of individuals taking personal responsibility for their purchasing also would help meet this goal but requires a significant number of people and campus units changing their purchasing behavior. In summary, the strategy of centralizing purchasing to increase use of sustainable products appears to be the best means for accomplishing this goal.

3. Should this objective be retained in the 2020 iCAP? If so, does it need to be modified?

The objective of the campus purchasing at least 50% of purchases meeting campus standards by FY 20 should be retained because the goal can be achieved with implementation of centralized purchasing. The likelihood of achieving this objective can be further increased by including a tangible enforcement or some other control method. In addition, specific targets should be added to the 2020 iCAP text, such as “by FY20 all staff (where applicable) will have been educated on proper sustainability goal metrics, standards, and policies; at least 50% of purchases of products like office paper, cleaning products, computers, other electronics, and freight/package delivery services must be sustainable to meet campus standards by FY20, and 75% by FY25. This may require more purchases being made through a centralized system.”

4. Are there any additional comments about this iCAP Objective?

The original 2015 iCAP Strategies outlined for objective 6.1 are still viable and the campus should strive to achieve the goals. Improvements in sustainable purchasing should increase the likelihood of the campus achieving the 2015 iCAP objective. If not, some level of progress is achievable with the current strategy.

**Objective 6.2: Reduce MSW waste going to landfills. This involves reducing nondurable goods purchases, effectively reusing materials, and recycling. In the latter category, campus will increase the diversion rate of MSW to 45% by FY20, 60% by FY25, and 80% by FY35, while also increasing the total diversion rate to 90% by FY20 and 95% by FY25. MSW sent to landfills should decline to 2,000 tons annually by 2035.**

1. Is campus on track to complete this objective by June 30, 2020? If not, what are some possible reasons why this is the case?

The campus is not on track to achieve this objective. There are systematic issues that make it for the UIUC waste system to achieve this objective. There is also a behavioral and education issue to be addressed. Basic information about contamination of recyclables (e.g. by placing a half full coffee of cup in a recycling bin you prevent the entire contents of the bin from being recycled) and about the recycling process (e.g. many people think that all recyclables are removed from the waste stream) needs to be made available to everyone.

2. Does this objective adequately work toward address the goals outlined in Chapter 6 of the iCAP?

Yes.

3. Should this objective be retained in the 2020 iCAP? If so, does it need to be modified?

Yes. The PWR SWATeam thinks the goal of 60% waste diversion by 2025 is still reasonable But urgent action needs to be taken to achieve this ambitious goal.

4. Are there any additional comments about this iCAP Objective?

- a. An explanation of how the calculation for the waste diversion rate is made should be included in the statement of this iCAP objective.
- b. Expand acceptable recyclable materials – e.g. batteries, glass, wood.
- c. Sort most/all campus trash to remove recyclables that are placed in landfill bins
- d. **Adopt a PAYT system with university departments.** (E.g. Divide the university into various departments and colleges. Then ‘tax’ each department/college for waste collection. Perhaps 75 ¢ per lbs of landfill trash and 50 ¢ per pound of recyclable trash. Not only does this encourage waste reduction but it encourages facilities to properly dispose of recyclables. | For clarification the following is a simplified example: Say the college of ACES has two buildings under its jurisdiction, Mumford and Turner. (buildings that are largely meant for public use like Funk library should be excluded from this system). The College of ACES would be ‘taxed’ for all waste generated in both buildings. | Facilities that put non recyclables into recyclable trash to reduce costs could face a fine. The ‘tax’ money could go towards a sustainability fund. If this project is feasible, it could be **funded using an ISEE Grant** to buy weighing devices to properly track each building, funding a position/intern to manage it, etc. Alternatively, rather than ‘taxing’ a department this could be run as an incentive program.)
- e. **Create positions for Student Sustainability Coordinators.** These Coordinators would work to educate students on sustainability and find solutions to sustainability issues. A small team of Student Coordinators could work in each residence hall and in other buildings too, taking responsibility for coordinating recycling and waste reduction.

### **Objective 6.3: Utilize landfills with methane capture.**

1. Is campus on track to complete this objective by June 30, 2020? If not, what are some possible reasons why this is the case?

Campus does currently utilize landfills with methane capture. Currently, waste is being hauled to the landfill in Danville, Illinois which uses methane re-capture technology. According to Karin Hodgin’s calculations based on publicly available data from the U.S. EPA, the waste emissions from campus are estimated to be 2,314 tons of GHG in FY08 and 510 tons of GHG in FY14, which is a good reduction. To further decrease GHG emissions, it might be beneficial to look for landfills with higher rates of methane capture but the additional transportation costs need to be estimated.

2. Does this objective adequately work toward address the goals outlined in Chapter 6 of the iCAP?

Although the objective does not help reduce waste produced on campus, it does help reduce GHG emissions from waste in landfills. The ultimate objective should be to reduce the waste headed to landfills, which will also reduce the amount of GHG generated.

3. Should this objective be retained in the 2020 iCAP? If so, does it need to be modified?

The objective should be retained in the 2020 iCAP. However, the objective could be modified to include a numerical objective. The objective should also take into consideration the carbon emissions from transporting the waste to landfills and from using landfill gas to produce electricity.

4. Are there any additional comments about this iCAP Objective?

The most recent data available to the PWR SWATeam on GHG emissions from the Danville landfill is for FY14. It would be beneficial to obtain more recent information, which will help assess the current objective and create better future goals.

**Objective 6.4: Appropriately staff Zero Waste efforts through the hiring of a full-time Zero Waste Coordinator.**

1. Is campus on track to complete this objective by June 30, 2020? If not, what are some possible reasons why this is the case?  
Objective achieved with hiring of a Zero Waste Coordinator.
2. Does this objective adequately work toward address the goals outlined in Chapter 6 of the iCAP?  
N/A
3. Should this objective be retained in the 2020 iCAP? If so, does it need to be modified?  
N/A
4. Are there any additional comments about this iCAP Objective?  
Marya Ryan is the Zero Waste Coordinator and the PWR SWATeam is planning to meet with the coordinator.

**Section 3: Potential Future iCAP Goals and Objectives**

**If your SWATeam has thoughts on additional goals or objectives related Purchasing, Waste, and Recycling, please offer them in this space. Consider this question as open-ended as you would like it to be.**

-Increase use of renewable energy sources to 50%.

-Enforce/Increase use of recycled content paper (as stipulated by section 4.4525 of higher ed procurement rules)

- Invite someone from housing to join PWR SWATeam (Ideally an assistant director, someone with an understanding of how housing facilities function and the feasibility of implementing PWR recommendations)
- Develop campus policy for purchasing energy efficient, e.g., Energy Star and EPEAT (Electronic Product Environmental Assessment Tool), rated computers and electronics to reduce energy consumption.
  - Including modifying purchasing websites to preferentially show sustainable products.
  - Include energy star products and logos in iBUY.
- Develop training mainly for students, but also faculty and staff, on energy efficiency/waste generation and disposal in terms of purchasing, usage, e.g., leaving computer systems on continuously, and recycling.
- Further explore the addition of battery recycling as we have a well-developed proposal in this area from last term.
  - Extend this into looking at the feasibility of recycling glass, wood, and other miscellaneous materials, including construction materials (estimated costs, projected retrieval, etc. need to be studied).
- Search for more student outreach opportunities to get fresh and creative ideas and to use as a resource. As mentioned in Section 6.2, explore the idea of Student Sustainability Coordinators, certainly in Residence Halls, but also perhaps across campus. One possibility would be to have a team for this purpose for each building, with the teams working in cooperation with F & S.
- Following up on our extensive discussion with Dr. Donna McNeely, work with the Ethics and Compliance Office to encourage university compliance with PWR goals and objectives, cooperating in preparing and disseminating videos, etc..
- Cooperate with ISTC/F&S to implement a comprehensive and uniform recycling program as recommended by the Indoor Solid Waste and Recycling Collection draft document. (Feb 2019).
- Work with other SWATeams to achieve common goals and objectives. (E. g. work with ECBS to recommend the installation of motion sensors in buildings).
- Promote LED bulb replacement with ECBS Team (reduces overall building material waste).
- Encourage more university entities to subscribe to SmartWay transport systems (to reduce emissions).
- Recommend specific goals (such as diverting 20% of departmental purchases to iSEE approved sustainable products).
- Do more to draw attention to recycling programs and to dispelling misconceptions (E.g. many people think that all waste streams are sorted and that recyclables are removed; and many people are unaware that a half full coffee of cup placed in a recycling bin prevents the entire bin from being recycling because of coffee contamination)