

# WASTE WATCHER



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**Points of Interest:**

- PSU Climate Action Plan
- Building energy data
- PSU Sustainability Directory

## CHUCK-IT-FOR-CHARITY

Since the end of the spring term '09, PSU has made significant strides in waste reduction and recycling through education, outreach, data collection, improved signage and enhanced partnerships with dining services and student groups.

At the end of each term, and especially at the end of the school year, students are encouraged to Chuck-It-For-Charity. Gently used clothes and household goods are collected from residence hall drop sites by recycling specialists from PSU Recycles! This year over one ton of blankets, clothing, shoes and non-perishable food items

were donated directly to Friends of Seasonal and Service Workers (FSSW). FSSW is an all volunteer-run non-profit providing support for low-income workers striving for self-sufficiency in Washington County. Remaining

items were sold to incoming students at the First Annual PSU Recycles! Rummage Sale during September's new student week. The sale yielded over \$600 with all proceeds going to FSSW.



Christel Eichner, Resource Management Coordinator, PSU Recycles!  
 Daniel Schmidt, Crew Leader, PSU Recycles!  
 Leecia Anderson, Friends of Seasonal and Service Workers  
 Photo Credit: Portland State University

## PSU'S CLIMATE ACTION PLAN

A discussion draft of Portland State University's (PSU) Climate Action Plan (CAP) was submitted to Association for the Advancement of Sustainability in Higher Education (AASHE) on January 15<sup>th</sup>

2010. The plan summarizes PSU's current thinking on how to reach carbon neutrality by 2050. For the next 6 months the CAP will be up for discussion by the PSU community in order to refine the goals and strate-

gies, and then develop 2- and 5-year plans for implementation. The plan can be viewed at: <http://www.pdx.edu/sustainability/greening-our-campus>.



## FOURTH AVE. BUILDING IMPROVEMENTS EARN ENERGY TRUST REBATE

AUTHOR: CURRENTLY

*"We can be more efficient and save energy by heating or cooling spaces only when we need to, rather than letting systems run all the time"*

*-Mark Fujii*

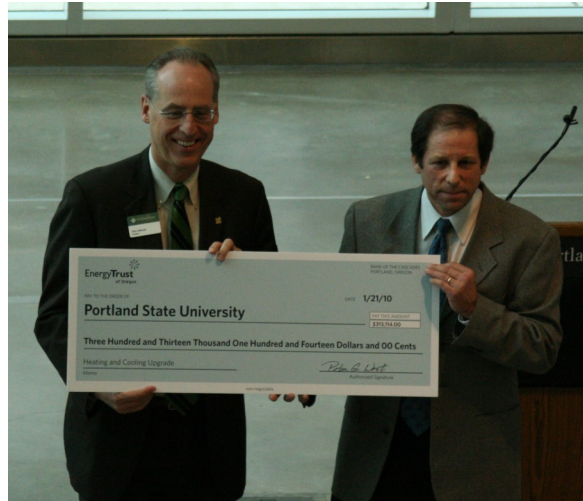
President Wim Wiewel accepted an incentive check of \$313,114 from Energy Trust of Oregon for recent energy-efficient improvements to the Fourth Avenue Building. The celebratory event took place Thursday, Jan. 21, at 10 a.m. in the lobby of the PSU Engineering Building. Improvements to the building's heating and cooling system will save an estimated 1.4 million kilowatt hours or \$126,000 in annual energy costs.

With the help of Interface Engineering, Portland State's \$1.1 million upgrade to the Fourth Avenue Building included dedicating a chiller for the data center, installing carbon monoxide controls for parking garage exhaust fans, and using outside air to help cool the building during moderate temperatures. The new installation also replaced constant volume systems with direct digital controls and added a system for re-using energy from the data

center to heat the rest of the building.

"We can be more efficient and save energy by heating or cooling spaces only when we need to, rather than letting systems run all the time," said Mark Fujii, PSU Facilities engineer.

Fujii credits Facilities col-



leagues Robyn Pierce and Nancy Grech for making the upgrade to the Fourth Avenue Building possible. They worked with Interface Engineering on the project and with Oregon companies PAE Consulting Engineers, Hydro-Temp Mechanical, and EESI Environ-

mental & Engineering Services. A representative of Lockheed Martin kept PSU informed of the Energy Trust opportunities.

The building, located on Southwest Fourth and Harrison streets, contains PSU Information Technologies offices, departments and classrooms of the Maseeh College of Engineering and Computer Science, and private businesses. Built in 1962, the Fourth Avenue Building was acquired by the University in 1997.

PSU has also applied for a Business Energy Tax Credit from Oregon Department of Energy. Fujii says the payback on the investment in the building is less than 10 years.

Energy Trust of Oregon, an independent nonprofit organization, provides cash incentives and solutions that promote energy savings to customers of Portland General Electric, Pacific Power, Cascade Natural Gas, and NW Natural.

## ENERGY CONSERVATION TIPS

- After work, shutdown office computers and switch power strips off!
- Many appliances continue to draw a small amount of power even when off. These "phantom" loads occur in most appliances that use electricity, such as VCRs, televisions, stereos, computers, and kitchen appliances. In the average home, 75% of the electricity used to power home electronics and appliances is consumed while the products are turned off. This can be avoided by unplugging the appliance or using a power strip and using the switch on the power strip to cut all power to the appliance.
- For more about home energy savings visit: <http://www.energy.gov/applianceselectronics.htm>.

## PSU RECYCLES! OFFERS “A SUITE OF OFFICE SERVICES”

To assist departments on campus in better managing office waste, PSU Recycles! has created a “Suite of Office Services.”

Step 1) A walkthrough is performed to assess recycling needs such as bin placement, signage and to identify specialized recycling opportunities like plastic bags/film and Styrofoam.

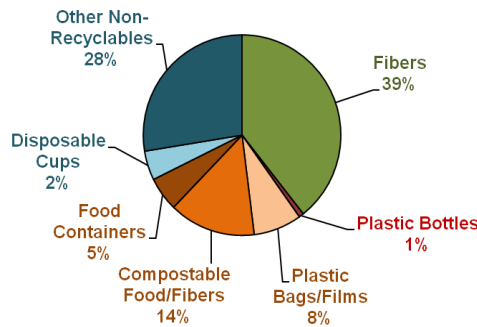
Step 2) A garbage

waste audit is conducted to see what’s getting tossed out that could be reused or recycled. Step 3) PSU Recycles! staff presents the results in a power point presentation at an all-staff meet-

ing office showing the new recycling improvements, and allowing time for Q&A. Finally, a follow-up waste sort is performed after six months to see how well the office has accepted changes.

To date, three campus offices, Center for Student Health and Counseling, Millar Library and USGS, have participated in this new program, all with great results.

Sample Office Area Waste Sort Data



## HOW DO YOU GET TO PSU?

In 1996 PSU Transportation and Parking Services (TAPS) made the decision to promote alternative transportation modes and limit the amount of parking added to campus. Since then, PSU’s goal has been to reduce single-occupancy vehicle miles traveled to campus by encouraging students, faculty, and staff to choose alternative transportation modes as their primary means of traveling to and from campus.

In 1997, private automobiles were the predominant mode of transportation, with 46% of students and staff driving alone to campus. Today, we’ve reduced that rate to just 25%. After significant collaboration with the regional transit agency, TriMet, PSU is now at the core of the region’s transit network, and transit ridership

is the preferred mode of travel to campus (39% in 2009). Since 2003, the number of bicycle commuters has increased 350%. This group now totals 11% of all trips to campus.

These improvements can be attributed in large part to policies, programs, and promotions provided by TAPS. Specific examples of these efforts include partially subsidizing transit passes for students and employees, increasing bicycle parking and bicycle commuter resources, such as the PSU Bike Hub (an on-campus bike shop), partnering with ZipCar to provide car-sharing vehicles on campus, and pricing motor vehicle parking at a rate commensurate with the goal of reducing demand. These collective efforts demonstrate PSU’s commitment

to sustainability, livability and smart growth.

Every year, TAPS conducts alternating Student and Employee Commute Reports which detail the ways in which students, staff and faculty commute to campus, where they commute from, and the motivating factors underlying mode choice. TAPS also conducts an annual Bicycle Transportation Report to evaluate how many bicycles are being parked on campus, identify the major impediments to bicycle commuting, and help refine programs and services that encourage people to commute by bike. These reports are available for viewing at: <http://transportation.pdx.edu/planning-sustainability>

*Since 2003, the number of bicycle commuters has increased 350%. This group now accounts for 11% of all trips to campus.*

# 20/20 VISION FOR ENERGY CONSERVATION

*Those who unplugged their refrigerators during the 10 day campus shutdown saved approximately six pounds of coal.*

This fall five buildings received 20 energy conservation tips for a period of 20 days in a campaign called 20/20. Peter Stott, Millar Library, University Services, Extended Studies and the schools of Education and Business. The theory behind 20/20 as an energy awareness campaign, is that it takes about 20 days to make or break a habit. The 20/20 campaign aimed to instill energy conservation practices as habit in select departments with Green Teams.

Tips reminded people to power off, shutdown and unplug electronics at the end of every day. According to OIT, the University could save \$116,664 yearly if all computers optimized power-saving features.

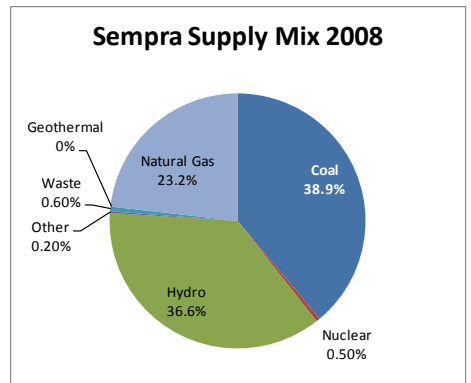
Tips included submitting work orders to report thermal waste and unplugging and defrosting refrigerators over the holiday break. Those who unplugged their refrigerators during the 10 day campus shutdown saved approximately six pounds of coal.

Together we'll learn to see energy conservation opportunities all over the campus with 20/20 vision. This campaign will continue through the spring by spot checking departments for nighttime energy conservation potential.



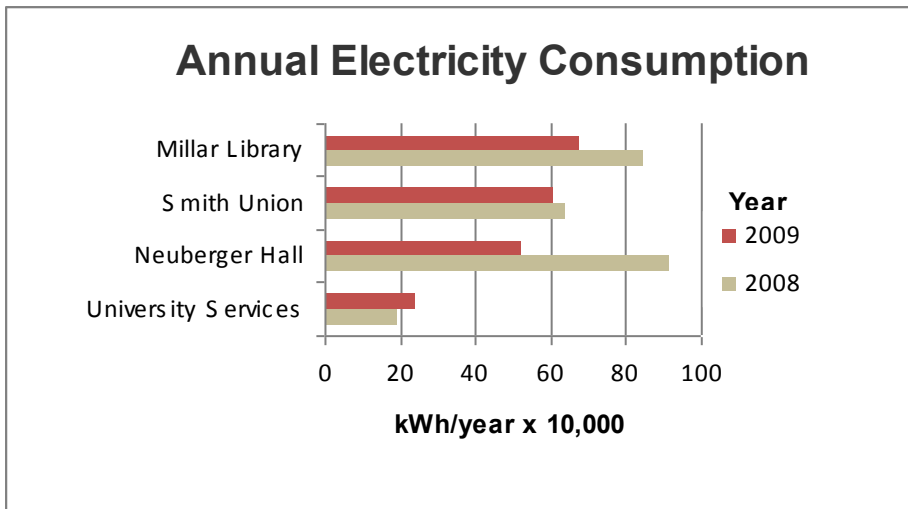
## ENERGY DATA FEEDBACK

Providing energy data feedback, is known to be a key component in motivating conservation efforts on campuses across the U.S. Future issues of Waste Watcher will provide increasingly refined data on building energy use. As a start, the chart below depicts changes in electricity use between 2008 and 2009 in four major buildings. The electricity use in these buildings for 2009 is equivalent to the energy contained in 6.5 railcars of Coal (EPA's Green Power Equivalency Calculator <http://www.epa.gov/greenpower/pubs/calculator.htm>).



### Where does our electricity come from?

In 2010, PSU purchased Renewable Energy Certificates (RECs) through Sempra Energy to offset carbon emissions for 100% of electricity used in campus buildings. The above pie chart shows the actual fuel supply mix for campus electricity before RECs.





# OUR LOCAL BIKE HUB



When the new student recreation center opened its doors in January, bike services on campus stepped it up a few notches. Immediately adjacent to the new Transportation and Parking Services (TAPS) offices along 6th Ave., is the brand new PSU Bike Hub. Members of the former PSU Bike Co-op will find that the services and benefits of membership have increased dramatically. Now students, faculty and staff have the opportunity to choose from an expanded line of discounted bicy-

cle accessories and tools for, learn how to service and maintain their bikes, and even drop off their bikes for a tune-up while on campus.

In late February, the highly anticipated Montgomery Street Bicycle Garage is scheduled to open. This state of the art bicycle parking facility has the capacity to house 77 bikes, and was designed for security, ease of use, and density. It also has a green roof that captures precipitation, reducing storm-water runoff. Located at the west end of campus near the St. Helens and

Blumel Residence Halls, it will serve as an anchor for the Montgomery Green Street Project. This is just the first of PSU's planned bicycle garages, and our largest-scale bike parking installation efforts to date.



**PJ Houser, student and member of the PSU Bicycle Advocacy Committee**

*Members of the former PSU Bike Co-op will find that the services and benefits of membership have increased dramatically*

# STUDENT SERVICES CUTS WASTE

Thanks to a new focus on reducing waste, Student Services made big gains in green event planning during 2009. Over the summer 1,219 pounds of compostable waste from 14 new student orientations were successfully diverted from the landfill. An impressive diversion rate of 81% was achieved! Quantifying waste in this way allowed Aramark dining services a perfect opportunity to buff up its sustainability credentials in the following ways: completely converting to Cedar Grove-approved compostable products, providing more buffet-style meals to reduce packaging, and eliminating bottled water at events.

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This October, PSU Recycles! worked closely with Student

Activities and Leadership Programs (SALP) to drastically reduce material waste generated at Portland State's annual student resource fair, Party in the Park. With 5,000 attendees receiving free food and drink in a large, outdoor, public space this was no small task. In reaching a respectable diversion rate of 70% for the event, efforts relied heavily on volunteers to monitor six designated compost/recycling stations in high-traffic areas. Working with SALP before the event was the key to success. By making thoughtful choices ahead of time, such as purchasing compostable dinner ware and borrowing water bottle filling stations from the Portland Water Bureau to replace bottled water, they were able to avoid the high

volume of waste generally associated with this type of event.

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A new educational campaign has been launched to combat heavy contamination of recycling by single-use coffee cups. "Give up the Cup" seeks to inform the PSU community that coffee cups are never recyclable and help encourage the use of reusable mugs through signage on recycling bins, social networking on Facebook and websites and videos shown in heavy use buildings. Coffee drinkers who bring their own mugs can receive discounts at most cafes on and around campus.

## PSU EcoWiki

For current news on events, grants and other resources visit your local sustainability action hub!

<http://ecowiki.pdx.edu/>

# PSU SUSTAINABILITY DIRECTORY

## PSU Sustainability Resources

### Recycling Improvements

-Contact PSU Recycles!  
725-4300

### Energy Data Feedback & Conservation Presentations

-Contact the CSO  
725-8951

### Start a Green Team

-Contact the CSO  
725-8951

### Alternative Transportation Options

-Contact TAPS

### Sustainability Action Hub

<http://www.ecowiki.pdx.edu/>

### Sustainability Information for PSU Employees— 2009's

**Green Guide:** <http://ecowiki.pdx.edu/images/stories/Green%20Guide.pdf>

Contact NWSA AmeriCorps member Kelly Larson at [greenecampus@pdx.edu](mailto:greenecampus@pdx.edu) for ideas and suggestions regarding future issues of Waste Watcher.

### PSU RECYCLES!

“PSU Recycles! is dedicated to creating a sustainable campus by reducing waste, expanding recycling opportunities, and increasing campus recycling and composting rates.”

- \* University Services Building (USB), Room 202
- \* [http://www.pdx.edu/sustainability/psu\\_recycles.html](http://www.pdx.edu/sustainability/psu_recycles.html)
- \* Christel Eichner: 503.725.4300

### TRANSPORTATION AND PARKING SERVICES (TAPS)

“PSU Transportation & Parking Services coordinates and promotes transportation options for PSU students, employees and visitors.”

- \* Academic Student Recreation Center (ASRC) 1800 SW 6<sup>th</sup> Avenue
- \* [www.transportation.pdx.edu](http://www.transportation.pdx.edu)
- \* Ian Stude: 503.725.9015
- \* Call for information about: Transit Passes, Bike Co-op, Streetcar & Zipcar

### THE CAMPUS SUSTAINABILITY OFFICE (CSO)

“The Campus Sustainability Office fosters innovative leadership in energy, water, land, and materials stewardship, to build a healthy future for all.”

- \* Market Center Building, Suite 800
- \* <http://www.pdx.edu/sustainability/greening-our-campus>
- \* Noelle Studer-Spevak: 503.725.8951

### THE STUDENT LEADERSHIP CENTER FOR SUSTAINABILITY

“The Student Leadership Center for Sustainability is a living laboratory for sustainability leadership as we prepare students to utilize their educations to create a society that encourages fair and equitable distribution of resources among all communities of Earth.”

- \* Smith Memorial Student Union, Rom 433
- \* <http://ecowiki.pdx.edu/office-of-sustainability/maintenance-and-construction.html>
- \* Heather Spalding: 503.725.5598

### CENTER FOR SUSTAINABLE PROCESSES AND PRACTICES

“The Center serves as a leading academic laboratory for developing sustainable processes and practices using multi-disciplinary approaches in partnership with business, government, and other organizations.”

- \* Market Center Building, Suite 800
- \* <http://www.pdx.edu/sustainability/center-sustainable-processes-and-practices>
- \* Elizabeth Lloyd: 503.725.8556

