Sustainabili
Monthly Newslette
sustainability.wustl.edu
Washington University in St. Loui
School of Medicin

Waste Reduction and Management

WUSM Using New Bigbelly and Smartbelly Waste Stati

Bigbelly and Smartbelly waste stations a on the WUSM campus, near 4515 McKin the food truck parking area. The Bigbelly station is a solar compacting trash rec that is software-controlled and self-powe solar energy. It takes up as much space footprint of an ordinary trash can, but its c is five times greater. As waste collects ins compactor, an internal infrared eye sense the bin is filling and triggers a compactio The Smartbelly recycling container is al powered by solar energy and provides time fullness status to limit unnecessary collections and head off overflow issues befo become a problem. The Smartbelly benefits are similar to those of Bigbelly compact without the compaction.

The stations log onto a software system known as CLEAN (Collection, Logistics, Eff and Notification) Management Console. This software allows the responsible party and manage notifications. Each unit has three LED indicators in the panel above the in hopper that indicate whether the bin needs to be emptied and if the component or st operating properly. Each station communicates via e-mail or text message, sending a to the responsible party when the container is flashing to notify them that the bin is ne or has a problem. Notifications will also be sent when the stations are due for mainte

With the systems, the managing user can log onto the website and monitor all the s Benefits include a minimization of waste overflow and pests, a reduction in the ca carbon footprint, and the addition of invaluable waste diversion and operations data

WUSM NEWS

- When PhDs Meet FMTs, Continued
- WUSM Eco-To Go Program Highlights
- Commuter Spotlight: Theresa Horn

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We Want to Hear From YOU!

What do you like about the Sustainability newsletter? Do you have ideas for how it could be improved or topics that should be covered? Would you like to share a way to be more sustainable at work or home?

Whether it be compliments or suggestions, we want to hear from you! Please send your feedback to Jacquelyn Stearns at stearnsj@wusm.wustl.edu.

- Energy Management Plans Presentation

LOCAL AND INTERNATIONAL NEWS

- World Health Organization Links Processed Meats to Cancer
- Study: Sustainable Practices Account for 11% of Company Value

UPCOMING EVENTS

- Saturday, November 21: Healthy Soil, Pollinators, and Harvests Workshop
- Thursday, December 10: Living Building Challenge Materials Petal Workshop

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SCHOOL OF MEDICINE NEWS

When PhDs Meet FMTs, Continued

In July, the Sustainability newsletter featured Jiaxi Fang and Tandeep Chadha, two PhD candidates at the Danforth campus who have been pursuing the development of a unique energy conserving filtration technology for building heating, ventilating, and air conditioning (HVAC) systems. Jiaxi and Tandeep reached out to the School of Medicine's facilities maintenance technicians (FMTs) to get their input on the new filter technology.

The PhDs and FMTs first met in October. The meeting was scheduled for 45 minutes but went on for nearly an hour and a half, with both sides gaining new and fresh perspectives. The PhDs came to the meeting armed with a detailed discussion agenda, while the FMTs came with a genuine openness to share their experiences as HVAC technicians.

Jiaxi and Tandeep asked the FMTs about filtration and changes in technology that they had witnessed over the years. They also asked about their varied backgrounds in the HVAC industry and general thoughts and opinions about the migration of new technology into the industry. Through this line of questioning, the PhDs learned how the receptiveness of maintenance technicians toward new technology could affect the launch of their filtration product. In the end, they left with valuable real-world

information, and the FMTs left with the satisfaction that someone developing a new product was willing to sit down and listen to them.

Next, the PhDs will install a prototype filter in an actual operating HVAC system. Watch for updates in future newsletters.

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WUSM Eco To-Go Program Highlights

Have you heard of Eco To-Go, the reusable to-go box program? Eco-To go is available at the School of Medicine's Shell Café. Staff, faculty, and students buy-in to the program for $5 and exchange the box for a key chain or vice versa when eating on the go. Shell Café has 500 boxes in stock, and currently, only about 300 are in circulation. To partipate, simply grab a box at the salad bar or hot food stations. After eating, return the box (you

don't need to clean it!) at your earliest convenience to a cashier. Users receive a 10 cent discount with every purchase after paying the initial fee.

If you are a student at the School of Medicine, you can also participate in the Eco To-Go program when attending lunch lectures. "WUSM Sustainability" is a student group dedicated to increasing awareness about sustainable behaviors. Last fall, group leaders purchased around 140 boxes for serving food at lectures. Their efforts have significantly reduced the number of disposable plates consumed. If you receive lunch at a lecture in an Eco To-Go box, be sure to return it to Shell Café after the lecture for reuse.

With your help, we can reduce thousands of single-use boxes on the School of Medicine campus each year by using Eco To-Go. Let's fill our boxes with the variety of delicious options offered at Shell Café!

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Commuter Spotlight: Theresa Horn

Theresa Horn, Emergency Management and Protective Services Program Coordinator, started commuting on the Metro in early 2013. Her positive experience led several colleagues to start regularly commuting via Metro, as well. Below, Theresa explains her decision to shift to a more sustainable commute in an interview with Ken Zimmerman, Security Manager:

When and why did you decide to start commuting by Metro? I decided to begin commuting back in 2013 to save costs on parking and the frustration of having to leave campus in rush hour. This was when the Taylor Avenue Bridge was down for rebuilding. After the first week of driving and trying to leave campus in the rush hour, I decided to make the jump to Metro.

What do you see as the benefits of commuting instead of driving? I leave my car in a safe area and hop on Metro. I have 22 minutes of quiet time in the morning, and I have a chance to contemplate what I need to complete before the day is through on the way home. I feel much more relaxed arriving home than when I had to drive in traffic.

Do you feel safe during your daily commute? I do as there are many

riders who are sporting the WUSM badge as well as WUSM attire. You see the same riders day after day and you get to know them. Riders look out for one another. When arriving at the CWE station, more than half of the riders on the train stand up to head for their office locations. In the early morning hours, it is nice to walk with a co-worker down Euclid to my office.

Anything else you would like to say about commuting? I've seen some real characters on the train the past three years!

If you would like to try commuting by Metro, most faculty, staff, and students qualify for a free U-Pass. As long as you are a benefit's eligible employee, you can sign up for a U-Pass through the Parking and Transportation website.

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Energy Management Plans Presentation

On November 4, Mark Hume, Assistant Director of Facilities Engineering, and Phil Valko, Assistant Vice Chancellor for Sustainability, presented on behalf of Washington University at "Successful Energy Management Plans," an

event coordinated by the U.S. Green Building Council - Missouri Gateway Chapter, in partnership with the Association of Energy Engineers - St. Louis Chapter. The event featured presentations from three universities, including neighboring institutions Saint Louis University and Missouri State University.

In the presentation, WUSTL team members explained that despite nearly doubling the square footage of the WUSM campus over the past 20 years, primarily with high energy intensive spaces, overall energy use has declined over the same period. More importantly, energy efficiency per square foot has improved by 52%, thanks to strategic investments in new installations and retrofits of energy infrastructure. In addition, the cumulative cost avoidance since 1992 is estimated at nearly $110 million. These types of retrofits are part of the University's commitment to reduce emissions of greenhouse gases to 1990 levels by 2020, despite the steady growth of the campus' built environment.

Saint Louis University's presentation included highlights of their energy planning, like investing in campus-wide sub-metering and enhancing building automation systems. Missouri State University described how they developed a new approach to scheduling the use of classroom space so that entire floors could be transitioned to an "unoccupied" mode for significant energy savings.

All presenters stressed the importance of collecting good data and engaging campus stakeholders to meet established goals and report progress.

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LOCAL AND INTERNATIONAL NEWS

World Health Organization Links Processed Meats to Cancer

The World Health Organization (WHO) announced late October that it now classifies processed meats as a Group 1 Carcinogen, putting them in the same category as tobacco and asbestos. Although eating meat has been shown to be detrimental to the environment, this announcement shifts the focus to the health risks of meat. After reviewing more than 800 studies, the WHO stated that 50g of processed meat a day correlates with an 18% increased risk of colorectal cancer. Processed meats included anything that has been salted, cured, smoked, or fermented. The average American consumes about 18 pounds of bacon a year, or about 22g per day, attaining almost half of the 50g of processed meat with bacon alone. Other meats categorized as processed include hot dogs, sausages, ham, and salami.

While not enough evidence could be gathered to definitively support that red meat also causes cancer, WHO now classifies red meat as a Group 2A Carcinogen, indicating that it probably causes cancer. An analysis of 10 studies supported that 100g of red meat per day correlated with a 17% increased risk in colorectal cancer. An 8 ounce steak, for reference, contains 225g of red meat. Together, red meat and processed meats likely cause 21% of colorectal cancers and 3% of all cancers. Lowered risk of cancer is just one of many benefits of low processed and red meat diets, and while many benefits are health-related, some include reduced environmental impact. The WHO's findings were released just in time to affect the U.S. Dietary Guidelines, which are being reevaluated this year. Lowered recommended servings of red and processed meats could make meals, including several thousand lunches for public school students, not only more

healthy but also more sustainable.

To read more, click here.

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Study: Sustainable Practices Account for 11% of Company Value

According to a recent study released by Project ROI, a company's reputation and name accounts for 33% of a company's value, and 33% of a company's reputation is determined by its responsible, sustainable practices. The study looked at larger, publicly traded companies. The findings are well demonstrated by Volkswagen stocks, which dropped recently after a scandal broke that the company had been altering its cars to cheat on emissions tests. The U.S. Environmental Protection Agency reported that 482,000 cars be recalled. Not only did this affect Volkswagen's stock price, but it also resulted in the first quarterly loss for Volkswagen in 15 years.

However, better stock prices weren't the only thing companies gained from sustainable practices. Consumers have shown willingness to pay 20% more to companies that have a reputation for being a leader in sustainability. As a

result, studies have shown that these companies make 20% greater revenue. Additionally, working for a sustainable company affects employees significantly. Sustainable companies have better job satisfaction, higher productivity, and lower employee turnover. One study showed that almost half of employees wouldn't leave their current company for one with a worse reputation, and those that would said it would take on average a 57% increase in salary to convince them to move. As a result, companies with good reputations have an easier time maintaining their workforce, all while paying less for their experienced, highly-productive employees. Consumers, employees, and investors all appear to put significant weight on sustainability. The result is that up to 11% of a company's value can be attributed to their reputation of sustainability. More and more companies are devoting resources to increasing their sustainability, and using their sustainable practices as tools for public relations as executives realize the real value of being sustainable.

For more, click here.

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UPCOMING EVENTS

Workshop on Healthy Soil, Pollinators, and Harvests

Saturday, November 21, 8:30-3p
St. Louis Community College- Meramec
11333 Big Bend Road, St. Louis 63122

Learn how you can use native plants to make the most out of your garden space. Topics will include how to maximize soil's potential by using organic matter, how to identify healthy soil, methods for sustainable urban gardening, and how to vary plantings to attract pollinators.

The deadline to register is Tuesday, November 17. To learn more and register, click here.

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Living Building Challenge Materials Petal Workshop

Thursday, December 10, 1-5p

HOK St. Louis

10 S. Broadway, Suite 200, St. Louis 63102

The Living Building Challenge Materials Petal is intended to induce a successful materials economy that is non-toxic, transparent, and socially equitable. In this workshop, participants will gain an understanding of how to meet the material-related Imperatives of the Living Building Challenge: I-10 Red List, I-11 Embodied Carbon Footprint, I-12 Responsible Industry, I-13 Living Economy Sourcing, and I-14 Net Positive Waste, as well as introduce and explain the Declare Program.

This workshop is appropriate for anyone working in the building industry. Participants should already have an understanding of the Living Building Challenge and be familiar with the Standard and the Imperatives and Petal structure of the Challenge. The workshop will highlight successful examples of innovative projects from around the globe, identifying innovative products and stories how projects have been successful in changing the materials marketplace.

Attendees can receive 4 GBCI CE hours, 4 AIA LU|HSW credits, and 4 Living Future Accreditation hours. Registration is $95 for USGBC-MGC members (must contact USGBC-MGC staff at hope.gribble@mobot.org for promotional code) and $145 for non-members. Click here to register.

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The Office of Sustainability newsletter is intended as a clearinghouse of sustainability-related news and events at the university, in the region and around the world. Listings in the newsletter do not necessarily represent Office of Sustainability endorsements or views. To submit an event or news item to include in the newsletter, email sustainability@wustl.edu.

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