

DAS GOES SOLAR

DAS strongly supports the Governor's goal to achieve 100 percent of state government's electrical needs through renewable sources by 2025. While DAS installed a 10 kW solar array on the Old Pendleton State Office Building in 2008, we knew we couldn't piece-meal enough buildings to meet the goal – we needed to make a bigger impact. DAS learned about third-party solar projects, which allow a public entity to install solar panels with no up-front capital costs.

In 2009, State Parks invited DAS to participate in their innovative third-party, 1.2 megawatt solar project at the State Fair. DAS was honored and learned a lot about the process, such as the benefits to the local economy and job creation that third-party solar projects generate. DAS realized that now is the time to make the move.

In March, DAS will release a Request for Proposal for a third-party solar project of around 4.5 megawatts on 14 buildings, 2 parcels of land, and 3 new carparks. The bidders will meet for a pre-proposal conference and tours in April, the proposals due in May, and the project complete in March 2011. DAS plans to create a website for staff and building tenants to stay involved and updated on the latest developments and will send that out when complete.

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CO-MINGLED RECYCLING COMES TO STATE BUILDINGS

Starting April 1, co-mingled recycling means that state employees can now place CLEAN paper, plastics and metals into the same, blue barrels. Here are a few points to remember:

1. Plastics and metal cans must be rinsed and free of any food or particulates before placing in the blue barrel.
2. Confidential shred should remain separate from the blue barrels.
3. Garten will now collect plastic bags from work-related activities or take-out lunches. They can be placed inside a larger bag next to the barrels and placed on top of a full barrel when full. They should not be placed loosely inside the mixed barrel.
4. Don't forget the other items we sort separately as well – electronic waste, dry-cell batteries, toner cartridges, fluorescent lamps, and more.

DAS will launch a campaign for the new program on April 1. Please watch for more information from your building or agency's green team, DAS custodians, the DAS Sustainability Program [website](#), and the new signs above your barrels at recycling stations.



Blue barrels await processing at Garten Services in Salem

OFFICE MAX EXPANDS TOTE PROGRAM

By Jim Chatfield, Office Max Sustainability Program

OfficeMax is pleased to offer an update to the current Sustainable Tote Delivery Program. The new multi-sized reusable totes are made recycled plastic resins, have a lifecycle of 3-years and are recyclable at end of life. In comparison to standard corrugated cartons, they require over 50% less energy to produce and reduce EPA pollutants over 60%. A great new feature of the new totes is that they are collapsible; they fold flat for storage between delivery cycles. Also, orders will be sorted into separate totes by cost center, which will ease the receiving process. In addition, Office Max can provide reports on the carbon emissions reduced by switching to the tote program, which agencies can include in their sustainability successes. To get sign up for the tote program, or adjust your existing program to the new totes, please contact Jim Chatfield at jimchatfield@officemax.com, (503) 781-2970.



The new totes are collapsible and look like boxes.

FINALLY...A SOLUTION FOR FOAM?

DAS plans to start a pilot project with Marion County's Fresh Start Market and Coffeehouse (see article on page 4). Currently, any one can deliver their foam chunks (not peanuts) to Fresh Start for recycling with a company in Portland. However, DAS plans to pilot a program where Fresh Start will come to five DAS buildings for foam chunk collection. Stay tuned for more information in upcoming emails and newsletters.

BUILDING SAVINGS UPDATE



DAS compares all bills to the calendar year 2000 as a baseline. The goal and OAR require a 20% reduction in electricity and natural gas usage by 2015. DAS does not adjust the buildings without baseline adjustments for weather or any other factors. The Billed Electricity column reports in kilowatt-hours (kWh) and Billed Gas in therms. The % change column represents the combined electric and gas savings in Btu's compared to the year 2000 usage. The Billed Cost column includes the totals for electric and gas – not all utilities. The individual buildings listed do not include all DAS-owned buildings, but the TOTAL DAS line does represent the total DAS spend for electricity and natural gas.

January–December 2009 data are as follows:

	Billed Electricity	Billed Gas	Billed Cost	% change
• Agriculture:	1,045,891	20,659	\$ 119,681	-30%●
• Albina*:	558,892	6,246	48,350	-31%●
• Archives:	977,883	31,032	120,849	-37%●
• BC/OSHA*:	373,983	14,541	53,242	+32%●
• Central Pt:	544,059	17,131	57,609	-4%●
• Commerce*:	281,009	6,779	38,167	-46%●
• Data Ctr.!:	6,398,688	8,831	437,379	N/A
• Employ*:	2,620,773	---	220,527	-46%●
• ESOB*:	321,648	6,017	27,333	-53%●
• Executive:	819,109	9,769	90,570	-28%●
• Gen Svcs:	636,957	10,301	75,746	-23%●
• GS Annex:	43,228	909	5,561	-10%●
• Health Lab!:	3,264,878	144,084	451,141	N/A
• Hum Svcs:	3,843,443	43,119	377,073	-23%●
• Justice*:	1,292,411	13,446	131,989	-23%●
• L&I:	2,957,522	36,896	286,885	-16%●
• Library*:	504,095	13,897	58,520	-0%●
• NMOB!:	1,354,044	15,010	138,541	N/A
• New Pend:	490,739	12,580	50,616	-25%●
• Old Pend:	263,165	967	20,394	-24%●
• Port Cr Lab!:	1,547,380	27,784	159,126	N/A
• Port SOB:	3,345,173	23,140	248,052	-4%●
• Print Plant:	1,264,380	6,444	148,143	-21%●
• Prop Dist:	270,626	23,422	48,097	+14%●
• Pub Svc*:	2,421,636	5,176	202,894	-14%●
• Pub Utility:	1,448,696	1,845	132,375	-18%●
• Real Estate:	188,427	7,473	27,198	-16%●
• Revenue*:	4,402,499	31,393	396,157	-52%●
• Salem MP:	419,913	13,481	55,629	-21%●

TOTAL DAS: 49,071,477 595,622 \$4,684,479 -27%●

DAS buildings saved 16% in 2008.

* These buildings had major lighting or HVAC projects, changes in operation schedules, or other outside factors that influenced their use since the baseline year. The buildings will no longer have baseline adjustments, due to a new philosophy for tracking usage, but DAS actively investigates to ensure the non-tenant related use is as efficient as possible.



! These buildings have been constructed since the baseline year and adjustments are underway to correct DAS totals for their usage.

Note: DAS investigates all buildings that do not meet the 20% reduction goal.

CHILLED BEAMS IN EUGENE

DAS recently performed a full renovation of the Eugene State Office Building, which incorporated the entire HVAC and lighting systems. DAS explored innovative technologies to maximize efficiencies. We selected a chilled beam heating and cooling system. This is a fairly new technology to the U.S., but the research showed this building was a perfect candidate.



The chilled beams in the first floor lobby of the ESOB. They look like traditional vents in the ceiling.

Chilled beams are a flat plate collector with nozzles and coils on the upper side through which treated liquid flows. It can bring cold or hot air into a space. Active chilled beams are considered "active" because they are connected to an air handling unit and provide ventilation air to a space.



DAS updated the exterior as well, including reusing the decorative grid and planting new, sustainable landscaping.

In June 2009, the first four-pipe, active chilled beam system in the Pacific Northwest opened its doors. Over the last six months, the building has performed well. It maintained tenant comfort in extreme conditions, including 100 degree weather in the summer and 10 degree weather in the winter, all while it met the Oregon Department of Energy's SEED program model every month for electricity.

The Eugene Water and Electric Board, Energy Trust of Oregon, and Oregon Department of Energy's Business Energy Tax Credit all contributed incentives and tax credits to the project.

DAS AWARDED FEDERAL FUNDS

DAS was the proud recipient of \$500,000 in federal funds through the Oregon Department of Energy. DAS plans to use the funds for a new chiller in the Archives Building and new rooftop heating and cooling units at the Portland Crime Lab. These improvements will increase comfort for the occupants of the building and save a significant amount of energy.



TIP OF THE MONTH

Eliminate junk mail. There is a web site you can visit to "opt out" of unwanted mail: <http://www.dmachoice.org/>.

GREEN TEAMS

Green teams are self-organized, grassroots and cross-functional groups of employees who voluntarily come together to educate, inspire and empower employees around sustainability. They identify and implement specific solutions to help their agency operate in a more environmentally sustainable fashion. It is possible that every agency can work on basic steps toward reducing its impact on the world.



Green Team Best Practices

- Start with the visible and tangible: focus on internal operations.
- Get senior management involved, but don't lose the grassroots energy.
- Engage employees to capture ideas.
- Communicate and share best practices.
- Engage employees in their personal lives.
- Align green teams with statewide and agency-specific sustainability goals.

DAS believes that green teams are the key to infusing a culture of sustainability in state government, and created several tools to create or enhance existing teams. One tool is a new section on the Sustainability Programs Web page. The page includes best practices for green teams, who should participate on green teams, tips on presentations to management, and more.

http://sustainability.oregon.gov/DAS/FAC/SUST/green_teams.shtml

In addition, DAS created a **Kill-A-Watt loan program** for green teams.

Kill-A-Watts are devices to track the electricity consumed by equipment and appliances. Plug the appliance into the device and the device into the wall. It displays the watts consumed at that moment or over time. If any green team members would like to do their own research or analysis, they may contact Elin Shepard to check out a Kill-A-Watt for up to one month.



RESOURCE CONSERVATION UPDATES

DAS has designated its buildings as resource conservation zones. Here are updates on programs and practices that save taxpayer money.



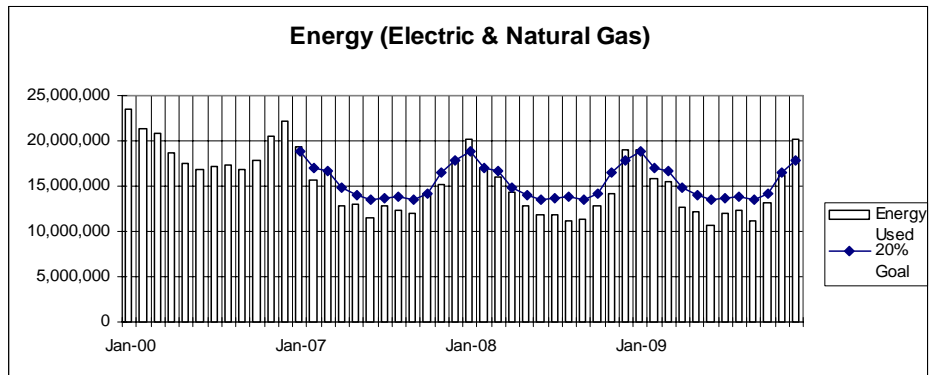
Night Audits

DAS continues quarterly night audits in the buildings. Here is an update from the last few months.

- Congratulations to the **Commerce Building**. You are the first "0" building! You left no plug loads on at night in your building. ★
- Equipment in sleep mode. DAS no longer notes equipment in sleep mode, as analysis with the Kill-A-Watts showed minimal electrical draw. However, equipment that is turned off saves the most energy.

Savings

- DAS energy savings 27% for 2009.
- Resource Conservation Management Policy = around 6% of savings.
- Utilities cost avoidance = around \$400,000 in 2009.



PILOT PROJECTS

“Smart” Power Strips

In the previous two editions of the Waste Watcher, we've discussed the power savings potential of “smart” power strips. These are power strips that connect to an occupancy sensor that turns off major plug loads when we leave our cubicles.



This month, DAS will begin a pilot project with the Energy Trust of Oregon (ETO) to track the effectiveness of the devices on a broader scale. DAS will purchase and deploy smart power strips for all the staff in the General Services Building. DAS will recover a portion of the cost through an incentive from the ETO. An engineer will monitor the before and after use of the smart power strips. These results could drive a new, regional program for the ETO that incentivizes their customer base and expands the use of these power strips.

Facebook and Twitter

DAS received approval to launch a pilot project into the world of social media. Facebook, Twitter, blogs, and other forms of social media are powerful tools to communicate information and connect with interested individuals. Stay tuned for more information on how to follow and become a “fan” of the Sustainability Program!



PUBLIC SECTOR SUSTAINABILITY PROGRAMS

Sustainability is happening all over Oregon – in business and in government. It's happening at all levels – city, county, state, and federal.

Fresh Start Market and Coffeehouse

Marion County Juvenile Department operates a market and coffeehouse built around sustainability. It is located at 3020 Center Street NE, next to the Juvenile Courts and Detention Center. The building and coffee bar are made from recycled wood and glass donated from the community. Inside, half of the space is a produce market with assorted vegetables, tomatoes, zucchini, fruits and berries – most of it grown on site. The coffeehouse takes up the other half of the space and sells a variety of coffee drinks along with breakfast pastries and sandwiches. The workers are juveniles who have had run-ins with the law and are paying off restitution to their victims. From **April 30-May 2**, the market hosts a spring plant sale (flowers and vegetables), and unique art created by the youth. They will have lunch specials and free popcorn. More information: <http://www.co.marion.or.us/JUV/freshstart/>



THE POWER OF OUR ACTIONS

DAS received an annual statement from Garten Services on how our actions are making an impact on the environment and community.

Garten Services collects recycling and confidential shred from nearly all of the state agencies in Portland and Salem. In 2009, state agencies recycled:

- 2,328,720 pounds of waste paper,
- 1,877,256 pounds of confidential shred,
- 17,076 pounds of plastic products,
- 435,961 pounds of electronics.



This means we:

- saved the equivalent of 35,751 trees, which would have otherwise been harvested for paper pulp,
- reduced the greenhouse gas emissions equivalent to removing 98 cars from the road for a year,
- reduced water consumption equivalent to water that would have been used to take 525,747 personal baths,
- saved energy equivalent to 461,824 gallons of gasoline,
- eliminated the costs associated with hauling 10,515 cubic yards of waste to the landfill.

In addition, the Garten programs employ over 500 people with disabilities throughout Oregon. Garten guarantees safe and environmentally-conscious recycling of paper, plastics, electronics, and confidential shred materials. Garten carefully scrutinizes and selects only sustainable, certified vendors for downstream processing of components from the de-manufactured electronics.

RESOURCES

- DAS Sustainability Program website: <http://sustainability.oregon.gov>
- DAS Sustainability Plan: www.oregon.gov/DAS/FAC/Statewide/docs/DAS_Sustainability_Plan.pdf
- Greenhouse gas emissions inventory for state of Oregon internal operations: http://governor.oregon.gov/Gov/2007_Legislative_Session/Correspondence/DAS_GHG_report.pdf
- Green Teams: http://sustainability.oregon.gov/DAS/FAC/SUST/green_teams.shtml
- Oregon Sustainability Board: http://sustainability.oregon.gov/DAS/FAC/SUST/osb_home.shtml
- Sustainable Oregon: website under construction until Sept 2010

In addition, Governor Kulongoski established some of the most aggressive sustainability requirements in the country. Below is a summary of the key drivers in state government.

- 20% energy reduction goal by 2015 and SEED guidelines http://arcweb.sos.state.or.us/rules/OARs_300/OAR_330/330_130.html
- DAS policy 125-6-010: Sustainable Facilities Standards <http://www.oregon.gov/DAS/FAC/docs/1256010.pdf> (policy revision planned for 2010)
- DAS policy 107-011-010: Resource Conservation <http://www.oregon.gov/DAS/OP/docs/policy/state/107-011-010.pdf>
- DAS policy 107-011-030: Holiday Decorations & Lights <http://www.oregon.gov/DAS/OP/docs/policy/state/107-011-130.pdf>
- DAS policy 107-011-140: Sustainable Procurement and Internal Operations <http://www.oregon.gov/DAS/OP/docs/policy/107-011-140.pdf>
- DAS E-waste policy 107-009-0050 <http://www.oregon.gov/DAS/OP/docs/policy/state/107-009-0050.pdf>
- ORS 279A governs procurement of goods, the purchase of paper, recycled materials, etc. <http://landru.leg.state.or.us/ors/279a.html>
- ORS 459A.480 governs state agency recycling programs. <http://landru.leg.state.or.us/ors/459a.html>
- Solar power in public buildings: 1.5% of construction cost http://arcweb.sos.state.or.us/rules/OARs_300/OAR_330/330_135.html

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