

UAA SUSTAINABILITY IN ACTION - DRINKING ENERGY

74 Vending machines
\$9,335 Saved annually
66 tons CO₂ annual reduction



UAA Installs VendingMisers on Cold Beverage Machines

Vending Machines Guzzle Energy

Vending machines consume electricity 24-7; lights are constantly on and compressor cycles run more frequently than necessary. VendingMisers are designed to reduce vending machines' energy consumption by reducing the amount of time lights are on and compressor cycles run. Using an occupancy sensor, VendingMisers turn vending machines off when people are not near. When the occupancy sensor detects movement, the vending machine powers back up for 15 minutes, lights come on and a compressor cycle runs. VendingMisers also measure ambient air temperature. If the vending machine has been turned off for too long, the VendingMiser returns power to the vending machine to run a compressor cycle and keep beverages cold. Similar products are available for snack machines, glass-front coolers and normal electronic devices. The national average of energy savings is approximately 46%, based on the manufacturer's findings.



Evaluating VendingMisers at UAA

When UAA learned about VendingMisers and the potential energy savings, the maintenance crew tested a VendingMiser on a machine outside the maintenance office.



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Staff connected the vending machine to a watt meter for one week. The next week, staff installed a VendingMiser and used the watt meter to track energy consumption for another week. The maintenance crew compared the data from both weeks and found that prior to installing the VendingMiser, the machine used an average of 305 watts per hour, but after the VendingMiser was installed, on average only 161 watts per hour were used. With the VendingMiser installed, the University reduced the vending machine's electricity use by 47.2% - slightly better than the national average.

Vending Machines Sip Energy at UAA

In 2006, after confirming energy savings, UAA wrote into its vending machine supplier contract that VendingMisers must be installed on all UAA vending machines, with the exception of food and hot beverages. To date, Aurora Vending has installed 74 VendingMisers at UAA. Vending machines with VendingMisers save varying amounts of energy depending on how frequently the machines are used. Since UAA's test project calculations were so close to the national averages, UAA uses its findings from the test run to calculate campus wide-energy savings from the VendingMisers.

| VendingMisers Installed | Watts Reduced Annually | \$ Saved Per Year (based on .10¢ per kWh) | CO2 Reduced Annually |
|-------------------------|------------------------|----------------------------------------------|----------------------|
| 1 | 1,261,440 | \$126.14 | 1,778.63 lbs |
| 74 | 93,346,560 | \$9,334.65 | 65.81 tons |

Individual Responsibility

Identify vending machines in your recreation areas, volunteer locations or workplace break rooms. Ask if VendingMisers have been installed, and if not, provide those managing these areas with information about the benefits of VendingMisers and encourage their installation. Ask them to track savings through Green Star.

"The folks at Facilities are unsung heroes of UAA's sustainability efforts."

— Paula Williams, Director, Office of Sustainability —

Key Players

UAA Facilities
UAA Procurement

UAA Sustainability

UAA is committed to teaching sustainable practices through classrooms, research and community service. UAA leads by example, advancing sustainability in daily operations and long-term planning, and coordinating efforts with the communities we serve. To learn more about UAA's efforts, visit www.uaa.alaska.edu/sustainability.

Green Star

Green Star's Internship Program assisted UAA in developing this series of case studies. Green Star is a local non-profit dedicated to assisting, certifying and recognizing businesses committed to resource efficiency and environmental leadership. To learn more about Green Star, visit www.greenstarinc.org.



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