



“The Veterinary Center has a commitment to sustainability that is grounded in our basic purpose to leave the world a better place,” said Dr. Michael Lorenz, Dean, OSU Center for Veterinary Health Sciences. “Our performance contract with Johnson Controls has helped us take a fiscally-responsible step in that direction. The project is a win-win for the university and Oklahoma taxpayers.”

The Oklahoma State University (OSU) Center for Veterinary Health Sciences (CVHS) has completed upgrades to five buildings that are expected to realize approximately \$9 million in cost avoidance over the course of a 20-year performance contract with Johnson Controls, Inc. (NYSE: JCI). Work began on the project in September 2006.

Based on actual utility bill comparison, the project has already delivered more than \$2,730,023 in cost avoidance to date (Jul 2013). The utility cost avoidance is a result of upgrades that range from glazing windows and installing lighting controls to retrofitting the buildings’ plumbing and air flow systems. Under the terms of the performance contract, the expected cost avoidance over 20 years will outstrip the initial capital expenditure to implement the facility upgrades. If the cost avoidance does not meet an agreed-upon threshold, Johnson Controls will compensate OSU for any shortfall.





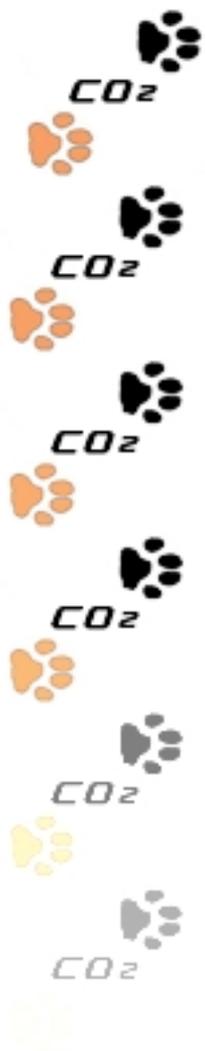
Environmental Impact to Date
 Reduction to Date (Jul 2013)
 Unit

Type of Pollutant

Greenhouse Gases (CO ₂))	39,623,917	Lbs
Methane (CH ₄)	1,227		Lbs
Nitrogen Oxides (NO _x)	61,690		Lbs
Nitrous Oxide (N ₂ O)	499		Lbs
Sulphur Dioxide (SO ₂))	70,468	Lbs
Toxic Metals Pollutants	285,870		Mg
	(Hg)		

In layman's terms, these reductions are equivalent to:

The energy produced by burning 54,435 trees -OR- 3,581 fewer cars on Stillwater roads (mid-size sedan driving 11,300 mi/yr), equal to 1,822,840 gallons of gasoline consumed -OR- The energy consumed by 806 single family homes (30,000 KWh/yr)



Program Highlights Buildings

- Electric Power
 - Education - Active programs to educate faculty, staff and students on the importance of being a partner in conservation efforts by responsibly reducing electrical consumption of offices, laboratory and common spaces.
 - Active lighting controls allow lights to be activated while facilities are occupied and then extinguished when a lack of activity is sensed.
 - Active controls to allow lights on vending machines to be extinguished when a lack of activity near machine is sensed.
 - Fixture re-lamping with new high efficiency lighting products results in an enhanced visual appeal and energy conservation.

- Steam / Chilled Water
 - Education - Active programs to educate faculty, staff and students on the importance of being a partner in conservation efforts by supporting thermostat set-points and eliminating use of local heaters.
 - Temperature management policy allows for consistent application of energy management principles while permitting exceptions in areas where special circumstances exist.
 - Air handler unit replacements have resulted in major savings due to enhanced efficiency of units and digital control systems.
 - Window replacement utilizing high efficiency glass.
 - Active HVAC system Monitoring allows proactive response to maintenance functions which could result in reduced efficiencies or system failures.
 - Environmentally friendly anti-freeze products are used throughout our facilities.

- New Construction/Remodeling
 - Active control systems are installed in all remodel and new construction spaces allowing implementation of a managed energy program in all areas.
 - Environmentally friendly design principles are applied in all construction with an eye toward responsible energy consumption.
 - Space reuse allows avoidance of new construction and enhancement of energy savings in existing structures.

- Domestic Water
 - Low-Flow Fixtures reduce water consumption dramatically. Savings are 2 - 4 gallons per flush cycle.
 - Sewer discharges are decreased as a result of reduction in domestic water use resulting in savings for treatment costs

Appliances

- Energy Star certification on new appliances allows selection of devices which contribute to the energy conservation efforts of CVHS
- Consolidation of functions allows for fewer appliances to meet the needs of multiple users thus reducing energy consumption

Grounds

- Water - low water consumption landscaping materials reduces need for irrigation
- Gasoline - slow growth landscaping materials reduce mowing and other maintenance

Vehicles

- Fossil Fuels- forklifts and other vehicles use alternative fuels wherever feasible.

Information Technology

- Energy Star certification of computing hardware
- Server consolidation/virtualization
- Server cooling optimization utilizing latest ASHRAE guidance
- Active, monitored local workstation power management
- Replacement of CRT's with LCD's
- Consolidation of printing functions to high efficiency printing devices

Office Supplies

- Paper
- Use of Recycled Paper
- Paper Recycling

- Cardboard
- Cardboard Recycling

- Ink/Toner
- Use of recycled cartridges
- Recycle Ink-jet Cartridges
- Recycle Toner Cartridges

Cleaning Supplies

- Currently use 80% green certified cleaning products
- Environmentally friendly
- Improved indoor air quality

Animal Bedding

- Recycled Paper
- Shavings