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**WAL★MART**

[www.walmartfacts.com](http://www.walmartfacts.com)

A periodic fact sheet produced and distributed by Wal-Mart Stores, Inc.

## Wal-Mart's Energy Efficient Stores Save Resources, Positively Impact the Environment

At Wal-Mart, we know that being an efficient and profitable business and being a good steward of the environment are goals that can work together. And we truly believe that corporations can develop and implement practices that are **good for the environment and good for business**. **Take energy use:** Who better than Wal-Mart to make a kilowatt of electricity go twice as far or a gallon of diesel take our trucks twice the distance? Who better than Wal-Mart to stretch our energy dollars farther than anyone ever has or to help lower our energy bills and gas prices for years to come? We're doing our part to conserve energy in our stores and to ensure that energy-saving innovations in our new stores set the precedent for our future ones.

### Here's how:

- Today, 90 percent of the facilities we build from the ground up include a daylight harvesting system (skylights, electronic dimming ballasts, computer controlled daylight sensors, etc). Nationwide, we have approximately 2100 stores, Supercenters, Sam's Clubs, and Neighborhood Markets with this system in place ( over 333,000,000 sq. ft.), resulting in an **annual savings of approximately 600,627,600 KWH**. Put another, way, that's enough power to supply approximately 53,390 homes each year.
- Since most of Wal-Mart Supercenters and Wal-Mart stores are open 24 hours, we utilize our state-of-the-art Energy Management System to dim sales floor lighting to about 75% illumination during the evening and night hours. While barely noticeable to our customers and associates, this program saves a substantial amount of energy. When this program is fully implemented at the end of 2006, Wal-Mart will save another 32,300 KWH per location, per year. This equals another annual savings of 44,000,000 KWH, or **enough energy to power an additional 3,860 U.S. homes each year**.
- All new retail facilities utilize T-8 fluorescent lamps and electronic ballasts, which comprise the most efficient lighting system on the market. We are aggressively retrofitting all older stores and upgrading them with this same technology. Doing so **reduces the energy load of a single store by approximately 15-20%**. **At least 90% of our existing stores with older systems (T-12 or HID) have undergone this retrofit.**
- We also utilize "low mercury" lamps, the bulbs of which, **unlike all other fluorescent lamps, are not considered to be hazardous** material and can be disposed of in any landfill. However, we have chosen to voluntarily recycle these lamps out of concern for the environment.
- Centralized Energy Management – **The heating, air conditioning, refrigeration and lighting systems of all U.S. Wal-Mart retail stores are monitored and/or controlled from our home office** in Bentonville 24 hours per day, seven days a week. These energy management systems enable Wal-Mart to monitor energy usage, analyze refrigeration temperatures, and observe HVAC and lighting performance. It also allows us to adjust lighting, temperature and/or refrigeration set points from a central location.



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- We use LED lighting in all of our internally-illuminated exterior building signage at nearly all new construction locations. Also, we replace older, existing signs with LED technology, which can provide over 70% more energy-efficient operation than fluorescent illumination. **With life of LEDs as long as 100,000 hours, using LEDs provides an extended life span of 12 to 20-plus years.** This significantly reduces the need to manufacture and dispose of fluorescent lamps.
- We install occupancy sensors in non-sales areas in our new stores. These sensors detect activity in a room and **automatically turn off the lights** when the space is unoccupied.
- Wal-Mart utilizes **high efficiency heating, ventilation and air-conditioning (HVAC) units.** Our units have a weighted Energy Efficiency Ratio of 11.25. This is a 10% increase over the industry standard, weighted average, efficiency guideline (ASHRAE 90-1). These units are more efficient than required by the most stringent U.S. energy code (California's Title 24).
- In most areas of the country, Wal-Mart retail stores have "white" membrane roofs. The high solar reflectivity of the white membrane roofs results in **lowering the "cooling load" of an individual store by about 8%.**
- Approximately 70% of the hot water needs for our Supercenters, Sam's Clubs and Neighborhood Markets is generated by "reclaiming" the "waste" heat from our refrigeration equipment. **This savings is enough to provide hot water to over 30,000 U.S. homes.**
- We actively dehumidify our buildings, allowing us to operate them at a higher temperature and use **less energy.** It also allows the refrigeration systems to **operate more efficiently.**

#### Comparisons to Standard Energy Codes:

- Compared to ASHRAE (American Society of Heating, Refrigerating, and Air Conditioning Engineers) 90.1 – 2001 our lighting system is **40% more efficient than the baseline minimum.** (This is what the Energy Policy Act of 2005 uses as the benchmark.)
- Compared to ASHRAE 90.2 – 2004 and California Title 24 our lighting system is **24% more efficient than the baseline minimum.**
- Our overall building (all systems) is **9% more efficient than the most stringent of all U.S. energy codes, California Title 24.**

#### Other Sustainability-Focused Initiatives Underway at Wal-Mart:

- Specifications for all new U.S. Wal-Mart retail facilities now provide for the inclusion of up to 25% fly ash in the exterior concrete mixes. Additionally, up to 40% of the mix can be a combination of fly ash and ground granulated blast furnace slag. Fly ash is a waste product from the coal-fired electrical process, and slag is a waste product from steel production. Therefore, by incorporating both, we are reducing the amount of a natural resource (cement) that we use, **and replacing it with waste products that would otherwise populate landfills.**



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- **ACRES for America** – Wal-Mart has committed \$35 million for the next 10 years to conserve at least one acre of priority wildlife habitat for every acre developed for company use. Acres for America will permanently conserve at least one acre of priority wildlife habitat for every developed acre of Wal-Mart's current footprint, as well as the company's future development over the next 10 years.
- The restroom sinks in our stores use sensor-activated, low-flow faucets. The low-flow faucets, because they regulate flow, **reduce water usage by 84%**, while the sensors, which regulate the amount of time the faucets flow, **save approximately 20%** in water usage over similar, manually operated systems.
- Recycled products: As just one example, since 2002 Wal-Mart has incorporated via just one item -- recycled plastic baseboards -- **nearly 4,000,000 lbs. of recycled plastic** into our products.

We at Wal-Mart are doing our part to live up to our energy efficiency and other sustainability goals and to strive to reach our fullest potential in this arena. Doing so reduces our dependence on oil, saves money, and reduces greenhouse gas emissions. Wal-Mart is vigorously working to do all these things...**and to continually do them better.**

For more information about Wal-Mart's energy-saving initiatives, please visit [www.walmartstores.com](http://www.walmartstores.com).

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