

# 2013 Governor's Sustainability Award Winner



ILLINOIS SUSTAINABLE  
TECHNOLOGY CENTER  
PRAIRIE RESEARCH INSTITUTE

## CHAMPAIGN-URBANA MASS TRANSIT DISTRICT



In 2012, the Champaign-Urbana Mass Transit District (CUMTD) was responsible for facilitating more than 11.4 million bus, van, and paratransit rides throughout

Champaign, Urbana, Savoy, and the University of Illinois Campus. CUMTD operations impact a wide variety of people, lifestyles, and natural resources. For this reason, the organization has made a strong commitment to environmental stewardship, continually working to reduce the resource intensity and environmental effects of their vehicles and facilities.

CUMTD received the 2013 Governor's Sustainability Award in recognition of their long-standing vehicle and emissions policies, sustainable infrastructure development, and community engagement efforts. In 2012 alone the District installed water-saving and geothermal technology which saved over \$12,000 in annual utility costs.

### SUSTAINABILITY GOVERNANCE AND STRATEGY

CUMTD owns and operates over one hundred buses and vans, as well as two maintenance garages, an administrative building, and Illinois Terminal, downstate Illinois' premier intermodal transportation hub. In 2011, the District embarked on the creation of an Environmental and Sustainability Management System (ESMS) to govern environmental impact goal-setting and monitoring. Seven staff members attended training at the ESMS Institute at Virginia Tech, ensuring a strong organizational commitment to the effort. The CUMTD Maintenance Facility's ESMS received ISO 14001:2004 Certification in September 2013.

The District has also established a Sustainability Committee, consisting of operators, maintenance employees, and staff members who meet monthly to generate ideas and identify project opportunities. The committee has established a recycling center where employees can bring unwanted electronics, ink cartridges and other non-traditional recyclables. CUMTD staff regularly receive sustainability information and are encouraged to get involved in the Sustainability Committee.



### CASE STUDY HIGHLIGHTS

#### FY2012 Environmental Outcomes



**13,350** therms of natural gas reduced



**786,750** gallons of water reduced



**\$12,250** annual savings

#### About CUMTD

Headquarters: **Urbana, IL**

# of Employees: **300**

Sector: **Government**

NAICS code: **485113**

Find out more: [cumtd.com/gogreen](http://cumtd.com/gogreen)

***"These investments were good for the environment, but also good for our bottom line."***

*Bill Volk, CUMTD Managing Director*

#### ABOUT THE ILLINOIS GOVERNOR'S SUSTAINABILITY AWARD

Since 1987, ISTC has presented Governor's Sustainability Awards to organizations in Illinois that demonstrate a commitment to sustaining our environmental and economic health.

Any Illinois public or private organization is eligible to apply.

Find out more at:

[istc.illinois.edu/govsawards](http://istc.illinois.edu/govsawards)

or email [istc-govsawards@illinois.edu](mailto:istc-govsawards@illinois.edu)

## CHAMPAIGN-URBANA MASS TRANSIT DISTRICT

### INGREDIENTS FOR SUCCESS

A breakdown of strategies and technologies that help the Champaign-Urbana Mass Transit District increase efficiency and reduce environmental impact.

#### Energy Use

- ✓ Geothermal heating and cooling
- ✓ Rapid roll garage doors
- ✓ Thermoplastic Olefin (TPO) reflective roofing
- ✓ Waste oil heaters
- ✓ Skylighting

#### Transportation Fuel

- ✓ Hybrid buses
- ✓ Soybean biofuel
- ✓ Anti-idling policy
- ✓ Certified Bicycle-Friendly Business

#### Pollution Prevention

- ✓ Diesel particulate filters (DPF's)

#### Water/Stormwater

- ✓ Wash bay recycling system
- ✓ Permeable pavement

#### Waste Reduction

- ✓ Employee e-waste collection
- ✓ Fluorescent tube recycling
- ✓ Annual litter cleanup event

#### Other Sustainability Practices

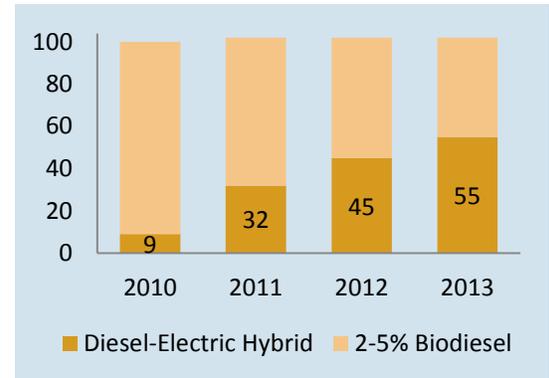
- ✓ ISO 14001:2004-certified Environmental Management System
- ✓ Sustainability committee
- ✓ Sustainability training for employees

### TRANSPORTATION FUEL & EMISSIONS

Hybrid buses were first introduced to the District in 2009 and have grown to represent over fifty percent of CUMTD's 102-bus fleet (see chart for fleet statistics).

A district-wide Anti-Idling Policy was instituted at CUMTD in April 2009. Less idling time lengthens engine life, saves fuel, and creates a cleaner, quieter environment for pedestrians. The policy states that no CUMTD vehicle is to idle more than three minutes, unless the weather is prohibitive.

CUMTD conducted a joint research project with the University of Illinois to determine the effectiveness of diesel particulate filters (DPFs) on four test buses. Initial research began in 2007 with the help of Dr. Xinlei Wang, an Associate Professor of Bioenvironmental Engineering at the University of Illinois, and funding from the EPA. The results showed that the DPFs successfully remove 90 percent of particulate matter (soot) from emissions. These filters have now been installed on nearly 70 percent of CUMTD's buses. When new buses are added to the fleet, they are delivered to Champaign-Urbana with DPFs already installed.



### ENERGY & WATER USE



The District has put in place a host of technologies which reduce their use of electricity and natural gas. The white roof, installed on the Administration and Operations building, is made of Thermoplastic Olefin (TPO) and reflects over seventy percent of solar rays hitting the rooftop, reducing air conditioning needs, especially on hot summer days. Light tubes, installed along with the TPO roof, also reduce artificial lighting needs by bringing natural skylight into the building.

In the same building, the District has installed a geothermal heating and cooling system which reduced natural gas consumption by 13,350 therms in 2012. These energy-saving opportunities were identified through the U.S. Department of Transportation's Transit Investments for Greenhouse Gas and Energy Reduction (TIGGER) program.

Finally, in the past two years the District has reduced water usage from 12.4 gallons per vehicle-hour to 9.4 gallons per vehicle-hour, thanks to a wash bay water recovery system and a new vehicle inspection policy that results in fewer washes per vehicle, per year.

