



PREVENTION *quarterly*



Office of
Pollution Prevention

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GLRPPR 2004 Conference - P2 Week in Columbus, Ohio

The Great Lakes Regional Pollution Prevention (GLRPPR) 2004 Conference will be held in Columbus during the week of September 20th. This date is special since it will be National P2 Week. Be sure to mark your calendars and get your travel requests in now.

Topics will include:

- GLRPPR Services & Resources
- P2 & Environmental Security
- Department of Defense P2 Programs
- Energy Efficiency
- Green Buildings
- Pollution Prevention in Water
- Industry Case Study Successes Using P2 Grant Funds
- P2 In Transportation

Special Feature:

Tour Honda's Gold Wing Motorcycle Manufacturing Plant. Conference organizers are working with Honda Corporation to host a tour of their Gold Wing

Motorcycle Manufacturing plant just outside of Columbus.



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GLRPPR will provide information exchange tables at the conference, so plan to bring your latest documents and project information to share with others. A limited amount of space is expected to be available for table top displays. Please contact GLRPPR if you are interested.

GLRPPR Ohio Conference Partners:

- Techsolve (MEP Center)
- International Truck & Engine Corporation
- Ohio Department of Development
- Wright Patterson Air Force Base
- University of Toledo
- University of Findlay
- Ohio EPA
- Energy Industries in Ohio
- Ohio State Environmental Network
- Ohio Manufacturers Association EISC
- Ohio Materials Exchange

For more information be sure to check the GLRPPR Web site at www.glrppr.org or e-mail Debra Jacobson at djacobso@wmrc.uiuc.edu.



Printed on recycled and recyclable paper

Engineering Green Buildings Conference

The first-ever national conference on green buildings for engineers will be held at the Marriott Key Center in Cleveland, Ohio from July 20-23, 2004.



The event is being co-hosted by the Cleveland Green Building Coalition and will include:

- two days of conference sessions (8 tracks, 27 sessions);
- sponsored sessions (Products/Services); and
- tabletop displays.

Engineering Green Buildings will provide intensive, interactive sessions and case-study discussions applicable to new construction, renovations and O&M in commercial, industrial and institutional buildings. The eight-track, two-day main conference covers LEED; energy efficiency; IAQ; water conservation; boiler emissions; right-sizing air-conditioning, ventilation, and water-heating systems; thermal storage; controls; commissioning; and measurement and verification (metering and sub-metering).

Attendees will learn the costs and benefits of green buildings and understand that “greening” a building means making it perform better with respect to energy, economics, the environment, human health, safety and comfort.

Other benefits of attending include:

- networking opportunities;
- business opportunity sessions;
- case studies on LEED-certified buildings;
- practice-project sessions; and
- training sessions on ASHRAE standards 90.1, 62.1 and 55.

To register, go to: www.hpac.com/products/egb_conference/attendee_information.htm.

Financial Assistance Available for Pollution Prevention and Regulatory Compliance Training

Businesses working to reduce their waste disposal costs, achieve ISO 14000 certification, or train their employees on how to comply with environmental regulations might want to consider funding opportunities available from the Ohio Environmental Education Fund (OEEF). OEEF provides mini grants of \$500 - \$5,000 and general grants up to \$50,000 for education projects that encourage pollution prevention and help businesses understand and meet their regulatory responsibilities.



Eligible activities include training workshops, field demonstrations, compliance manuals, videos and other publications. Applications are accepted from for-profit companies, non-profit organizations, trade associations and local governments in Ohio. Recently funded projects include:

- Videos demonstrating success stories in pollution prevention and waste reduction in automotive repair shops and dealerships, and best management practices for salvage yards.
- *A Self-Help Guide to Environmentally Sound Operations* for small chemical companies, available online at www.ohiochemistry.org (under links of interest). The guide includes summaries of air, water and hazardous waste management, SARA Title III reporting requirements and pollution prevention opportunities.
- A peer-to-peer training network among Ohio hospitals, to reduce and properly manage solid, hazardous, infectious, radioactive, liquid and confidential wastes.
- A lending library with information on alternative and underutilized technologies for rural communities to assess drinking water, wastewater and other environmental infrastructure needs.
- Field demonstrations of an inexpensive solar-powered pump to move water from a stream to a nearby tank, so that farmers can fence livestock away from stream banks to prevent erosion and protect water quality.

Harnessing the Power of Advanced Fleet Vehicles: A Hybrid Electric Vehicle Fact Sheet for Government Officials

Written and produced by the Center for a New American Dream in collaboration with the National Association of Counties

What Are Hybrids?

Hybrid electric vehicles combine the best features of conventional and electric cars to improve environmental performance without sacrificing convenience. They get their driving power from both an internal combustion engine and a battery-powered electric motor, which results in greater fuel efficiency and cleaner emissions than most conventional cars. And unlike other alternative fuel vehicles, hybrids use standard gasoline pumps for refueling.

This fact sheet is targeted to local and state government officials, and describes hybrid fleet applications, operations, benefits and costs. King County, Washington, assessed the economic life cycle of the Chevy Malibu versus the Toyota Prius Hybrid (Figure 1). Figure 2 illustrates emission and particulate matter reductions when switching from the 2004 Chevrolet Malibu to the 2004 Toyota Prius. To download the PDF version of the fact sheet, visit the Center for a New American Dream's Web site at www.newdream.org/procure/hev.pdf. For hard copies, please contact Stephanie Pendergrass at stephanie@newdream.org or (301) 891-3683.

Figure 1: King County, Washington

	2003 Chevy Malibu	Adj. For Life Cycle ¹	2003 Toyota Prius	Difference
Initial Purchase Price	\$14,901	\$17,434	\$21,280	(\$3,846)
Projected Residual Value ²	(\$2,117)	(\$2,477)	(\$4,111)	\$1,634
Net Purchase Price	\$12,784	\$14,957	\$17,169	(\$2,212)
Fuel Miles Per Gallon	24	24	44	20
Est. Fuel Cost ^{2,3}	\$5,003	\$5,854	\$3,211	\$2,643
Est. Maintenance & Repair Cost ²	\$4,013	\$4,695	\$2,466	\$2,229
Total Cost of Ownership	\$21,800	\$25,506	\$22,846	\$2,660

Source: Calculations made by Windell Mitchell, Fleet Manager for King County, Washington

Notes 1. The Prius is assumed to have a life cycle of 100,000 miles and approximately 8 years while the Malibu is assumed to have a life cycle of 85,000 miles and approximately 7 years. Since the Toyota Prius will be driven 17% more during its life cycle than the Chevy Malibu, all of the cost figures for the Chevy Malibu were adjusted 17% upward.

2. Projected Residual Value, Estimated Fuel Cost, and Estimated Repair & Maintenance Cost calculated using a 3% discount factor.

3. Fuel cost estimated at \$1.61 per gallon.

Figure 2: Comparison of Annual Emissions and Fuel Consumption of Mid-size Sedans¹

	2004 Chrolet Malibu	2004 Toyota Prius	Savings	Percent Reduction
EPA Emission Standard	Tier 2 Bin 8	SULEV II		
Non-Methane Organic Gases (grams) ²	1,527	122	1,405	92%
Carbon Monoxide (grams) ²	51,303	12,215	39,088	76%
Nitrogen Oxides (grams) ²	2,443	244	2,199	90%
Particulate Matter (grams) ²	244	122	122	50%
Carbon Dioxide (lbs) ³	10,470	5,330	5,140	49%
EPA Fuel Economy (city/hwy) ⁴	24/34	60/51		
EPA Fuel Economy (combined) ⁵	28	55	27	
Fuel Consumed Annually (gallons)	436	222	214	49%

Notes 1. Based on 12,215 annual mileage.

2. Data obtained from Smog Forming Pollutants Chart, EPA Green Vehicle Guide: www.epa.gov/autoemissions/0-10chart.htm

3. Calculated using (12,215 miles / Combined MPG) x (24 pounds CO₂/gallon). Includes upstream CO₂ emissions and end-user CO₂ emissions. David Friedman, SeniorEngineer, Union of Concerned Scientists. Personal communication 7/25/2003.

4. Fuel economy rating for automatic/continuously variable transmission.

5. Assumes 55% city driving and 45% highway driving. Emission Standard Key: Vehicles meeting the Federal Tier 2 Bin 8 standard produce: 4.2 g/mi of CO, 0.02 g/mi of particulate matter, 0.2 g/mi of NO_x, and 0.125 g/mi of non-methane organic gases. Vehicles meeting California's SULEV II (Super Ultra Low Emissions Vehicle) standard produce: 1.0 g/mi of CO, 0.01 g/mi of particulate matter, 0.02 g/mi of NO_x, and 0.01 g/mi of non-methane organic gases.

Financial Assistance continued from page 2

- A workshop and guide to recycling construction and demolition debris.

OEEF will fund employee training on regulatory compliance, but not routine re-certification credit hours (e.g., wastewater treatment plant operator re-certification). A training program for a single company's employees is eligible, but OEEF encourages collaborative applications that reach a broader audience, for example, multiple companies in the same sector.

The next grant application deadlines are July 15, 2004 and January 17, 2005. This is a particularly good time to apply, because OEEF has introduced two incentives to increase the number of regulated community projects it funds. First, a new application form is particularly tailored to regulated community projects. Second, several changes to the scoring criteria allow extra points for these projects in the funding competition. Applications are available online at www.epa.state.oh.us/oef or by calling (614) 644-2873. The OEEF staff is happy to work with grant applicants to refine ideas and develop grant proposals. OEEF also offers grant writing workshops at no charge.

How You Can Make a Difference

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E-mail the Office of Pollution Prevention at p2mail@epa.state.oh.us, and request that we send you an electronic copy, an Adobe Acrobat PDF file, or a message indicating the newest version is now available on our Web page with the appropriate Web address. It's that easy to make a difference.

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