



Rebuild Michigan



Creative Projects,
Energy Efficiency Measures
and Conservation Opportunities



Typical Energy Efficiency Measures:

- ✓ Lighting Measures (T8 fluorescent, compact fluorescent, occupancy sensors, LED exit signs, etc.)
- ✓ HVAC Upgrades (high efficiency equipment, energy management systems and controls, variable frequency drives, etc.)
- ✓ Low Cost Measures (water conservation, building temperature adjustments, O&Ms, timers, etc.)

Less typical, creative measures are also being recommended, studied and implemented. Some are the result of IEE recommendations and some are brought to us by our contractor partners for our support.



Combined Heat & Power (CHP) at Wastewater Treatment Plants

Bio-gas from anaerobic digesters used to fire engine-driven generators to produce electricity. Waste heat recovered to heat digesters and provide supplemental space heating for the facility.



Now being studied by several Rebuild Michigan participants, who could move ahead with projects in 2006.



Converting Landfill Bio-Gas to Electricity

Use of landfill bio-gas, now being flared, to fire an engine-driven generator to produce electricity is currently being studied by a Rebuild Michigan participant.

The city could move ahead with a project in 2006.



Pioneer Bluff Wind Turbine Simulation

Wind Turbine Project Ishpeming Housing Commission

A verticle-axis wind turbine is being installed at Pioneer Bluff Apartments in Ishpeming. The wind turbine is expected to provide more than 50% of the power needs for the facility.

The system will be operational Spring 2006.



Decorative LED Outdoor Lighting

Some towns and cities utilize Christmas lights to decorate trees along the sidewalks and to accent street lighting... often year-round.

Decorative LED lighting uses 95-99% less electricity than standard Christmas lights and can last over twenty years.

A Rebuild Michigan participant is now testing this technology for implementation in 2006.



Waterless Urinals

Negaunee Public Schools and Manistee Public Library, both Rebuild Michigan participants, are utilizing waterless urinals. Several others are now considering this technology for future projects.

The cost-effective breakeven point for most facilities appears to be a water/sewer rate of at least \$5.00 per 1,000 gallons.



Rebuild Michigan can provide support through:

- ✓ Recommendation and discussion of energy efficiency measures in IEEs for Rebuild Michigan clients
- ✓ Recommendation and discussion of energy efficiency measures during follow-up with Rebuild Michigan clients after IEEs have already been completed.
- ✓ Grants to help fund TEAs, when necessary, for local governments

We support the implementation of cost-effective energy efficiency and renewable energy measures. We will support our contractor partners in implementation of these measures, too. (Can we offer assistance?)



U.S. Department of Energy
Energy Efficiency and Renewable Energy



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