



### **Waste to Energy**

by Paul Dahlinger

Olmsted and Dodge counties together generate 175 to 200 tons of refuse every day. About 90% of this huge amount is processed at the Olmsted Waste-to-Energy Facility, located just east of the Federal Medical Center, in Rochester.

At the facility, recyclable materials and hazardous wastes are first separated from the refuse stream. Then the remaining refuse is burned – at 2000° F – in a computer-controlled combustion chamber. The process is intended to minimize the discharge of pollutants into the atmosphere.

The energy produced by the burning the refuse is used to create steam that drives turbine generators producing 1500 to 3000 kW of electric power – enough to supply the energy needs of 3200 homes.

This electricity is sold at wholesale on the power grid. Not all of the steam is used to generate electricity, however. It also heats 17 Rochester buildings, including the Mayo Civic Center, Federal Medical Center, and Olmsted Community Hospital.

A 10-cubic-yard pile of waste is converted to one cubic yard of ash, dramatically reducing the landfill burden. The ash is deposited in dedicated landfill cells which are designed to contain the toxic material that is not destroyed by combustion.

When you realize that single 30-gallon trash can, filled with garbage, is equivalent to nearly 250 000 BTU's of energy – roughly equal to 20 pounds of bituminous coal – you begin to understand the magnitude of the fossil-fuel savings achieved by this facility.



### **IEEE Computer Society Meeting**

Karen Puffett

#### **DSL -- Digital Subscriber Line**

Monday, March 1, 7:00 pm  
Mayo Medical Sciences Building  
(321 3rd Avenue SW, Rochester)

*☞ Pizza & socializing at 6:30 pm ☜*

USWest MegaBit Services product manager Karen Puffett will describe USWest's xDSL offerings, which include 256-kb/s internet connections for homeowners and 45-Mb/s connections for host providers, such as ISPs and corporate LANs.

### **IEEE Section Event**

#### **Olmsted Waste-to-Energy Facility Tour**

Monday, March 15, 7:00 pm  
301 Silver Creek Road NE

Join us for a 1½-hour tour hosted by Rob Dunnette, who has been involved with the facility since its planning stages in 1985.

The plant is located east of the Federal Medical Center, on the same road that leads to the DNR headquarters. Look for a sign, and please be prompt (or even early).