



2009 WISCONSIN

## Renewable Energy Summit

Renewables, Sustainability, Energy Efficiency,  
Social Responsibility, and Green Energy Practices

## Sustainable Practices

## Session 16-4

**DATE:**

**THURSDAY, MARCH 26, 2009**

**Breakout Session 16-4:**

**Time:**

**2:00pm – 3:45pm**

**Presenters:**

**Poplar Phytoremediation: Real Green Plants Co-tasked for Pollution Control, Energy Conservation, and Renewable Fuels**

Dr. Louis Licht, Ecolotree Inc.

Wisconsin phyto is 'good to go'. Root zone reactors treat pollution and grow wood using less energy than any other engineered system. Consider: Science, Management, Monitoring, Money. Over 50 Ph.D. and 120 monitored installations around the U.S. use poplar varieties developed in WI. Expensive treatment plants are smaller and use less energy with strategically placed deep-rooted poplar and willow. In-ground water and soil contaminated by chemical spills are cleaned. Tertiary waste water treatment uses less energy and cleans pathogens and pharmaceuticals. Urban brown fields are rehabilitated. Urban and farm runoff pollutants are retained and treated in strategic edge buffers. Economics change. Harvested biomass used for value-added agriculture uses captured 'pollutants' like carbon dioxide, ammonia and phosphorous as the raw ingredients. Less fossil-energy is needed and renewable fuels can be a product. It has scales that fit from one row of trees to large fields.

Phytoremediation is a 'Remedy and not a Repeat' to co-task and integrate a solution that helps solve global warming, wildlife ecosystem degradation, increasing tax burden, clean water, clean air, and re-industrial development.

A new generation of sustainable technology is happening. Phytoremediation is a piece. And somewhere in this future are jobs for WTCS grads.

**Presenter Biography:**

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### **Louis Licht**

Louis Licht is founder and president of Ecolotree®, Inc. Since 1990, Ecolotree has designed and installed poplar-based phytoremediation systems at over 100 sites in 30 states and Europe. Project categories: Landfill covers, perimeter buffers, wastewater treatment, biomass energy, petrochemical spill cleanup, arsenic containment, brownfield revitalization, and agricultural & urban non-point runoff capture. Past employers: Charmin Paper Products (Green Bay), CH2M Hill, E.I.du Pont de Nemours

- Education: The University of Iowa: Ph.D. – Civil & Environmental Engineering, 1990
- Oregon State University, Corvallis, OR: M.S. - Agricultural Engineering & Econ, 1978
- Iowa State University, Ames, IA: B.S. - Chemical Engineering, 1973
- Lowden High School, Lowden IA: Farm Kid (Most Important)