



Buckeye Power, Inc.

ODOD Waste to Energy Workshop

Ohio Electric Cooperatives Renewable Energy Programs

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Ohio Electric Cooperatives

- 24 locally owned and controlled rural electric distribution cooperatives (RECs)
- Buckeye Power is owned and controlled by Ohio's RECs for the purpose of generating electricity and transmitting it across the grid to each local REC
- Provide service to 360,000+ members
 - Serve 10% of Ohio population
 - Serve 40% of Ohio land area



Ohio Electric Cooperatives Renewable Energy Program

- Increasing interest from member-consumers in renewable energy projects
- Develop programs to address various levels of interest
 - “Green tag” program for members that want to support renewable resource development
 - R&D program focused on demonstration and education
 - Renewable energy generator program for member-consumers that choose to become power generators
- Provide members with resource materials



Renewable Energy R&D

- Buckeye Power has budgeted \$100,000 annually for renewable energy R&D projects, partially funded by Envirowatts “green tag” program
- Three projects currently in service
 - Wind monitoring tower in Van Wert County (May 2005)
 - 10kW wind turbine installed at Indian Lake HS (May 2006)
 - 2.3kW photovoltaic solar system installed at Butler Rural Electric Cooperative office (October 2006)
- Planning additional projects for 2007
- Educational focus
 - Use website to display data
 - Develop educational materials



Waste to Energy Project Basics

- Convert waste material to beneficial by-products
- Conversion process management and control
- Fuel production, processing and handling
- Electric generation
 - “Qualifying facility” (QF) status under federal law
 - Connecting to electrical grid (interconnection)
 - Power sales agreement (PPA)
 - Generating equipment O&M

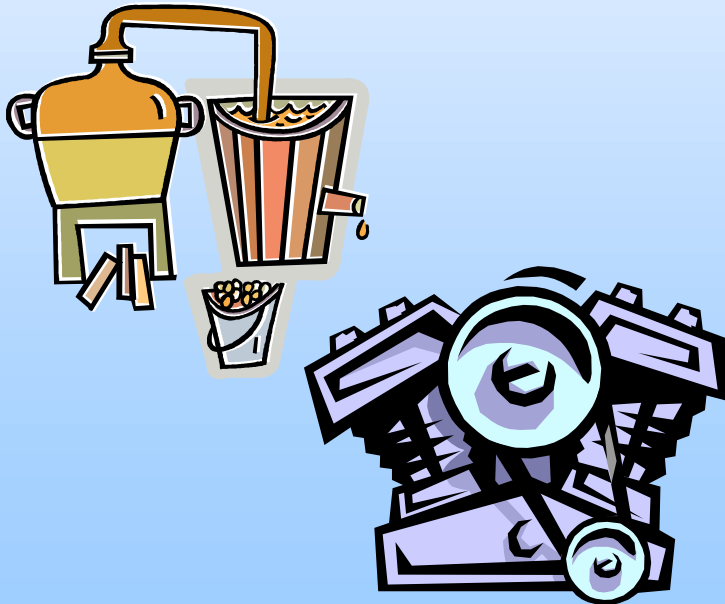
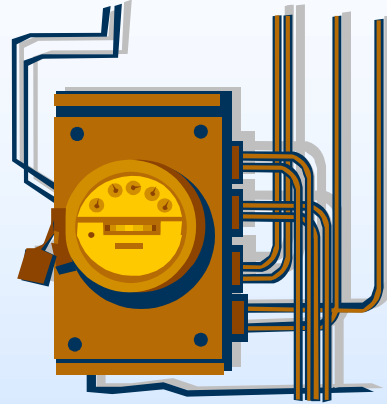
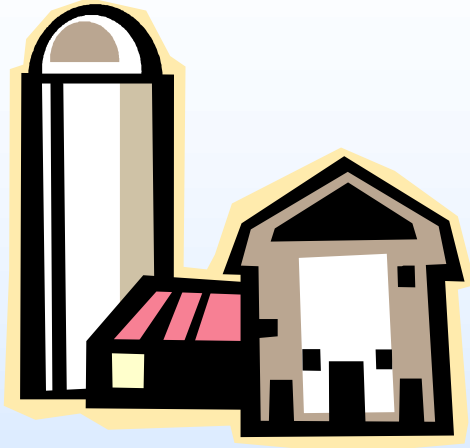


Ohio Electric Cooperative Philosophy

- Meet all legal obligations
- Assure safe interconnection of facilities
- Represent member-owner-consumer interests (not for profit, cost-based)
- Encourage renewable generation projects



Putting Together a Waste to Electricity Project



“Qualifying Facility”

Equipment Specs/Selection

Electric Interconnection

Power Purchase Agreement



Renewable Generator Program

- Buckeye has developed a model program for use by Ohio electric cooperatives with QF interconnections
- Developed statewide technical standards for interconnection and model agreements
- Requires establishing “qualifying facility” status (self-certification process)
- Generators offered cost-based standard offer power purchase agreement (PPA) that tracks Buckeye’s cost of production



Buckeye PPA Rate

- Ten year agreement based on higher of actual or avoided Buckeye production costs
- Buckeye purchases net electrical output and renewable energy attributes from each project
- Purchase rate adjusted regularly throughout contract term to reflect changes in costs
- Total purchase rate expected to be 4.0 – 4.5 cents/kWh for good performing waste fueled generation project, increasing as Buckeye's costs increase
- Compares favorably with Buckeye's current cost to generate power (less than 4 cents)



Questions???