Northeast Wood Energy Short Course

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The Penn Stater Hotel & Conference Center

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MISSION

- Establish decentralized, sustainable woody biomass energy systems for community and economic development
- Utilizing several woody biomass feedstocks: low-value / low-use wood, mill residue, short rotation woody crops
NEEDS

- For independent, third party feasibility analyses to help agencies, communities, and businesses evaluate how wood energy can meet local energy needs
- What technologies are available
- At what scale and cost
- What benefits could result
PARTNERSHIP

- The US Forest Service Wood Education & Resource Center (WERC)
  - Administers Woody Biomass Technical Support Program
  - Provides feasibility studies for projects with high potential for implementation
  - Evaluates & develops community-scale biomass thermal and thermally-led CHP projects
  - Funds & supports additional technical assistance

PARTNERSHIP

- The Pennsylvania DCNR Bureau of Forestry
  - Selects projects to move to feasibility stage
  - Gathers preliminary data from project candidates
  - Introduces either of two contractors to project candidates to begin study
Pre-feasibility Assessment

- **Facility Heating System Data**
  - **System Configuration**
    - Single/Multiple Power Plants & Buildings Served
  - Method of Heat Delivery
    - Hot water, steam, ducted air, electric resist.
  - Method of Heat Production
    - Steam boiler, electric, gas duct heater, etc.
  - Heat Production Rate
    - Winter Ave. – Winter Max. (MMBtu/hr)

- **Fuels Data & Records**
  - Annual fuel consumption & delivered costs
  - Include fuel & electric bills last 2-3 yrs.
  - Pictures of building & boiler room
  - Name of public electric utility
Pre-feasibility Assessment

- **Biomass System Economic Estimates**
  - Secure Quote or Estimate Biomass Fuel Cost ($/MMBtu)
  - Calculate Fuel Cost Savings ($/MMBtu)
  - Secure Quote or Estimate Biomass System Capital Costs
  - Estimate Biomass System Annual Operation, Maintenance, and Ash Disposal Costs
  - Calculate Simple ROI and Cash Flow

Penns Valley School District
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