Wood Energy Assessment for BIA Schools and Facilities in Southwest Region

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Tribal Energy Review
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Project Objectives/Goals

• Seek viable solutions to forest product utilization challenges in support of fuels reduction activities, forest health/timber stand improvement projects, and assisting tribal and other forest enterprises seeking higher valued use for waste material.

• Demonstrate to tribes and ourselves that biomass heating and energy production is wise, and is economically and technologically sound.
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Project Objectives/ Goals (cont’d.)

- Assist tribal and BIA facility/program managers in reducing heating and energy costs.
- Promote development of biomass energy projects both on and off the reservation where viable.
- Supports current national renewable energy emphasis
Who Has a Biomass Interest

- BIA, Division of Energy and Mineral Resources Management (DEMRM)
- New Mexico Intergovernmental Biomass Utilization Working Group (Federal & State Agencies)
- Southwest Sustainable Forests Partnership
- Dept. of Energy/ NREL
  - Federal Energy Management Program
  - Tribal Energy Program
Who Has a Biomass Interest (cont’d)

• Public Service Company of New Mexico (PNM), Biomass Energy Taskgroup
• Forest Energy – Wood Fuel Pellet Manufacturing, Espanola, NM
• US Forest Service Fuels for Schools Program
• NM State Public Schools and State Facility Management agency
Tribal Biomass Projects in the SW Region

- Southern Ute Tribe – Tribal Housing Develop, Centralized Heating Facility, (planning stages)
- Taos Pueblo – Tribal Facility Centralized Heating System (feasibility/assessment)
- Zuni Furniture Co.- Modular biomass energy system (system testing)
- Jemez Pueblo – Renewable Energy Assessment
- Mescalero Apache – MFP cogeneration utilizing mill residue (feasibility/assessment)
- Laguna Pueblo – Renewable Energy Assessment
What Has Come Together so Far

- Developed a very valuable relationship with the Biomass Energy Resource Center (BERC)
- Facilitated several meetings with:
  - Tribal Representatives
  - BIA-Office of Facilities Management and Construction (OFMC)
  - BIA- Office of Indian Education Programs (OIEP)
  - DEMRM (Faline Haven)
  - BERC (Tim Maker)
  - BIA- Forestry
  - DOE & Sandia National Lab
  - Sen. Bingaman staff
What’s in the Biomass Future for SWRO

- Received funding from BIA, Mineral Assessment Program (MAP) to do resource assessments and feasibility studies for:
  - 4 Regional BIA (schools and other facilities) and 4 Tribal Facilities ($99,000)
  - Mescalero Forest Products cogeneration facility ($160,000)
How School Wood Systems Work

- Fuel Sources
- Fuel Transport and Delivery
- Building Space
- Fuel Storage at School
- Fuel Handling
- Combustion System
What Does the System Look Like

Wood-Chip Combustion

Wood boiler

Wood and backup boilers
A Valuable Connection

How BERC Can Help Tribes and Agencies

- BERC is a non-profit with a community benefits mission
- We provide unbiased information – not selling a product
- We can help to:
  - Design and implement biomass energy programs
  - Put together and implement individual projects
BERC Services to Tribes and Agencies

- Program design and implementation
- Training
- Tours of biomass energy facilities
- Feasibility studies
- Assistance in decision making
- Help with finding financing
- System design
- Project management
- Commissioning
What We Also Want To Consider

Other Community Uses of Biomass Heating

- Multi-Building Heating
- Community District Heating
- Public Buildings
- Campuses
- Businesses
“Fuels for Schools” in Indian Country - Isn’t This the Right Time?