

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.

Project Objectives/Goals

A large, conical pile of light-brown wood chips or mulch sits in a dry, open field. In the background, there are brown, rocky mountains under a blue sky with scattered white clouds. A tall antenna tower is visible on the left side of the image. The ground is a mix of dirt and gravel.

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.

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 (DEMRRM)
- 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)



Mescalero
APACHE SCHOOL

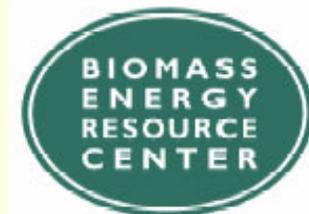


SHOW WHAT YOU
KNOW
"TEST YOU BEST"



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

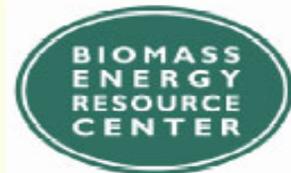
Wood-Chip Combustion



Wood boiler



Wood and backup boilers



A Valuable Connection

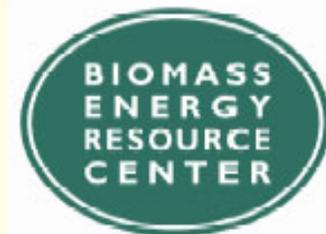
How BERC Can Help Tribes and Agencies

- **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?

