Model Neighborhood Project
Keeping heating dollars at home in the Northern Forest

Rob Riley, President
Northern Forest Center
The Center works to:

1. Create quality forest-based jobs
2. Increase investment and retain wealth in communities
3. Conserve managed forests
Fuel Cost Comparison: Percent Increase in 14 Year Period

Note: This graphic illustrates a percentage of change comparison, not a comparison of prices.
Sources: www.nh.gov/oep/index.htm and www.pelletheat.org *Updated 7/25/2013
Model Neighborhood Project
Keeping heating dollars at home in the Northern Forest

Northern Forest Center
Thriving Communities & Healthy Forests

MESYS
MAINE ENERGY SYSTEMS

City of Berlin, NH
Town Settled 1825 Inc. 1849

Better Buildings
Berlin - A NH Beacon Community
Wood pellet heating system

Space heating and domestic hot water supply with pellets

Wood pellets
2-5 cm (0.8-2 in.) in length, diameter 0.6 cm (0.24 in.)

1. Once or twice a year the pellets are delivered by a silo tanker. A loaded storage room of 4.5 m² is enough to keep a single-family house warm for one year.

2. The pellets are carried from the storage room to the boiler by a fully automatic pellet feed.

3. After the burning process all that’s left is ash – with a weight of only 0.5 per cent of the original pellet. The ash can be disposed of with the domestic waste.

4. If the pellet boiler is interconnected with a buffer storage, emissions can be reduced and efficiency increased.

www.unendlich-viel-energie.de
Modern Wood Heating Value Chain

- **Forest Land Owners:** Raw Material
  - **Loggers, Truckers:** Labor
    - **Wood Pellet Manufacturers:** Refined Fuel
      - **Boiler Manufacturers/Distributors:** Modern Technology
        - **Installation contractors:** Confidence
          - **Homeowners, Facility Managers:** Market for products and services
            - **$ Savings**
          - **Markets/diversification**
            - **Jobs**
            - **Markets**
            - **Low Grade Wood Markets**
Model Neighborhood Project
Action Steps:

1. **Technical and financial assistance** to homeowners/facility managers
2. **Clustered demand** for products and services
3. **Increase consumer confidence** in ‘new’ technology
4. **Track and promote community benefits**
5. **Increase sales volume and competition** to reduce costs
6. **Improve access to consumer financing** and insurance
7. **Advocate for policies** to bring wood pellet fuel and boilers into parity with other renewables
8. **Amplify and Replicate**
“The previous owner spent $6,000 a year on oil. At the rate we’re using pellets, we’ll save $2,000 - $3,000 a year, maybe more.”

Jayco Laughton
Berlin, NH homeowner
400+ individuals reducing heating costs; increasing pride; new job opportunities

Innovative community economic development approach catalyzing interest; knowledge of alternative energy

New community leaders sharing innovation and outcomes

Retention and enhancement of traditional community connection to the forest

Diversification of low grade wood markets, net reduction of CO2

Modern heating systems and energy efficiency in 40 homes and 4 non-profit facilities; new manufacturing facilities

Advocacy by homeowners/facility managers to advance supportive public policies

To date, $161,000 saved in fuel costs; over $612,500 total economic benefit to the region
Berlin, NH

Real Time Results - Based on tons of pellets burned since Feb. 1, 2012.

$160,925
Savings on Fuel
Amount saved by homeowners who switched to wood pellets
See the math

942 TONS
Net Greenhouse Gas Reduction
Net carbon dioxide avoided by not burning oil.
See the math

$612,669
Total Impact Value to Local Economy
Total impact of dollars continuing to circulate in local economy.
See the math
Model Neighborhood Replication

- Farmington, Wilton, ME
- Millinocket, Rumford, Eastport, the Islands
- Lyndonville, VT
- Berlin, NH
- Central Adirondacks, NY
- Windham County, VT
- Upper Valley, NH/VT
1 Community over 25 years...
40 homes heating with wood pellets:

- 7,187 Tons of Local Pellets Purchased
- $3 Million Wealth Retained
- $5.4 Million Total Local Impact
- 9,566 Net Tons of CO2 Avoided

Rob Riley, Northern Forest Center
rriley@northernforest.org
(603) 731-0563