



# **REAL WORLD EXAMPLES OF ON THE GROUND PROJECTS HEATING THE NORTHEAST WITH RENEWABLE BIOMASS 2011**

# BEFORE



# AFTER



## BEFORE



## AFTER



**BEFORE**



**AFTER**



# SOLAR THERMAL



# HAPPY CUSTOMERS



# FROM CHALLENGES TO SUCCESSES

## What did we learn?

- **Success required a fully committed, trained installer.**
- **Mixing and matching of parts in order to save money for the customer can result in difficulties.**
  - **Pellet feed**
- **Early adopters push suppliers and installers into uncharted territory.**
  - **Helping early adopters with low installation costs creates extra burdens during call backs**
- **Having a back up heat source was helpful during and after installation.**
- **Providing seamless domestic hot water produced by either biomass or solar has led to higher family comfort and satisfaction with their purchase.**
- **This family utilized the NH pellet boiler rebate fund to help defray costs, but many potential buyers were not able to utilize the rebate due to high costs for equipment and installation.**
- **Using one installer for biomass and solar helps.**

# WHAT STILL REQUIRES ATTENTION?

- Pellet storage and delivery standards (like Austrian Norm M7137). Should this storage bin be adjacent to the boiler without fire resistant separation?
- Safety standards for automatic pellet boilers. Are labs testing for burn back potential in boiler feed systems?
- Insulation of boiler, buffer tanks, and pipes are often considered less essential.
- Electric consumption of system components. More variable speed pumps should be used. We need to think about all system components, not just our boilers.
- Pellet fuel standards. Durability has been a problem.
- Pellet fines handling at the consumer's location. We have a long way to go here.
- Must not settle for installation of new state of the art boilers in homes with antiquated heating distribution. New distribution should always be considered.
- Buffer tanks for biomass combustion equipment always improves efficiency.
- Home owner's insurance is still a gray area with regard to fully automatic pellet boilers.

**THANK YOU**

**FEELING GOOD ABOUT  
WOOD,  
SCOTT NICHOLS**

