Best Practices in Wood and Pellet Stove Incentive Programs

University of Maryland Extension Woodland Stewardship Education Program

Thursday, December 18, 2014
Alliance for Green Heat Goals

✓ 501c3 nonprofit funded by foundations & grants
✓ Voice for wood heat consumers in Washington DC
✓ Work for more incentives for the cleanest & most efficient biomass heaters
✓ Work for more government R&D funding for ultra-clean “next generation” stoves
The AGH Team

- John Ackerly, President
- Olivia Wondu, Research Fellow
- Melissa Bollman, Research Consultant
- Murali Kamadanam, IT & web guru
Overview

• 14 “Best Practice” areas and trends
• More Best Practices is not necessarily better; they need to be tailored to goals and constraints of programs
• There are some trends that we think are going in wrong direction and some that are just in infancy and need to go much faster.
Certification of Equipment

• EPA certification is a basic “best practice” and next year can include a wider range of appliances.

• Limit the eligibility of pellet stoves to EPA certified models

• Some uncertified pellet stoves on the market are as low as 40% efficient, and many are in the 50-60% range.
Stricter Emissions Limits

• Typically, not all units qualify for incentive programs and with wood and pellets, emissions can trump efficiency.

• In Maryland and New York’s program Pellet stoves are held to 2 grams per hour.

• In Oregon, Maine and HUD’s PowerSaver low interest loan programs they are held to 2.5 g/hr at the most.

• For wood stoves, 3 grams an hour is reasonable.
Efficiency

• Using efficiency as a “best practice” is vital for many agencies – and for consumers.

• To date, only Oregon’s residential tax credit program has successfully integrated an efficiency value - based on how much more efficient the stove is than the EPA default.

• A utility program in Fort Collins, Colorado offers home owners zero-interest loans for wood burning appliance efficiency upgrades. Can upgrade from non-cat to a pellet or a catalytic stove, for example.
Rebate Amounts

• Right-sizing rebates is important to maximize benefits per taxpayer dollar spent.
• Using rebate amounts to steer people toward cleaner, pellet stoves, for example, can be effective.
• Maryland provides $700 for pellet stoves and $500 for wood stoves.
• Jurisdictions may pay consumers $200-400 to remove an old stove w/o replacing it.
Professional Installation

- Easier said than done. Who is a “professional”?  
- Most programs recommend CSIA and/or NFI certified installers. Few require it.
- Maine’s incentive program requires stoves to be installed by contractors.
- New York requires an EnergyStar professional.
- Maryland accepts self-installations if install is later inspected and approved.
Low-Income Considerations

- Providing a larger rebate or incentive can be a “best practice”
- Partnering with low-income service groups
- In New York a change-out of an old stove is required for their incentive program - unless the household is low-income, where a first time install is allowed.
- Incentivize more affordable stoves from big box stores as long as professional installation is required.
Minimizing “Free Riders”

• Every incentive program has to deal with people who get the rebate but would have made the purchase anyway.

• 30% rebates of $20,000 automated pellet boilers may have fewest “free riders” whereas $100 Energy Star rebates could have high “free rider” rates.

• If only the cleanest stoves are eligible with professional installation, then “free rider” impact is minimized.

• And, it can reward manufacturers who invest more in R&D.
Household/Area Eligibility

- Unlike cleaner pellet appliances, wood appliances should be restricted to more rural, less populated areas.
- And to help families with highest heating bills, programs can be limited to homes heated by oil, propane or electricity.
- Maryland and New York’s program is only available to homes that do not have access to natural gas.
Energy Audits

• A full or partial energy audits could be required for boiler incentives, to ensure equipment is right-sized after weatherization.

• All incentive programs should make homeowners aware of benefits of weatherization and any subsidized energy audit programs.

• The Building Performance Institute (BPI) is taking the lead to develop guidelines for energy auditors to inspect wood stoves.
Dedicated Outside Air

• Some states are beginning to require dedicated outside air (DOA), although many if not most hearth professionals think it is often inadvisable.

• Incentive programs in Oregon, Maine and other HUD PowerSaver programs require a dedicated outside air supply.

• In Oregon, this could mean a $35 vent that provides air within several feet of the stove.
Education

- Incentive programs should always include an education component.
- Incorrectly used new appliances can negate the benefits of a new stove.
- Using dry, split wood is crucial to maintaining clean burns.
- The EPA Burn Wise program is a great resource for consumer education materials.
Partners and Outreach

• Incentive programs should include major stakeholders in developing and assessing requirements.

• In Alabama, hearth retailers were unaware of a local stove incentive program.
Providing moisture meters and subsidizing wood sheds

- Requiring, subsidizing and/or prioritizing woodsheds in order to receive stove incentive?
- Free moisture meters with each wood stove purchase?
Monitoring and Evaluation

- Incentive programs need to integrate some monitoring and evaluation to assess the effectiveness of the program
- Survey all participants and hearth retailers via mail and email? Make survey public.
Contact Information

John Ackerly
Alliance for Green Heat
6930 Carroll Ave, Suite 407
Takoma Park, MD 20912
301-841-7755
jackerly@forgreenheat.org
www.forgreenheat.org

Thank you!