



30 Years of Energizing Efficiency

The Future is Cloudy, with a Chance of Oil

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Efficient Economy.

Keeping Up – Policy into Actions

- Regional Equipment Standards in process
- Emerging Technologies
- Early Replacement Programs

New Boiler Standards: Sept. 1 '12

- 84 AFUE for oil boilers
- 82 AFUE for gas boilers
- No standing pilots
- Automatic temperature reset (or purge control)?

HUGE retrofit potential for controls as alternative to new boiler.

Regional Furnace and AC standards

NORTH:

2013:

- Furnaces 90 AFUE

2015:

- AC 13 SEER split
- HP 8.2 HSPF split

SOUTH:

2013:

- Furnaces 80 AFUE

2015:

- AC 14 SEER split
- HP 8.2 HSPF split
- (EER also in SW only)

Implications:

- Base (least expensive) forced air equipment will be cheaper relative to oil boilers?
- This covers “mini-splits,” too.

New Technologies, New Threats:

- Variable speed forced air/propane condensing with tight ductwork
- Cold-climate HP
- Ground-source HP w. HW
- Mini-split, multi-split.
- Advanced building shells with very low heat loads - $<20,000$ Btu/hr for >4000 sf?

Threats from low-cost, low-value, non-central systems?

- Wood-burning stoves
- Pellet stoves
- Kerosene or propane space heaters
- Electric resistance “spot” heaters @ 15¢/hr.

Responses:

- *Really good integrated hot water for wet systems.*
- *FA “combos” supported by boiler as prime mover for fan-coil and indirect HW tank.*

A possible Opportunity: Early Replacements of Existing Equipment

- Goal: Use public money as incentive to replace the very worst stuff that is still operating.
- Value basis: Computed annual savings from excellent (integrated) replacement compared to existing equipment for “X” years.
- Now in Senate for obsolete CFC chillers
- ACEEE has templates and can help explore

The Oil Dealer's Strengths

- Local business
 - Strong customer relationships, trust
 - Great local and house-specific knowledge
- Many customers have limited options
 - Electricity perceived as even more expensive to operate.
 - Gas not available for many
 - GX has very high costs, particularly in NE.

Updating the old business model

Sell technology for efficiency

Fuel side:

- Biofuel for green buzz
- Ultra-low sulfur for low maintenance

Equipment:

- Condensing?
- Advanced Controls
- Combos, w/ and w/o forced air

Service Contracts Rule: Get customers to buy equipment that needs less work?

A more sustainable business model (but higher risk)?

Sell Comfort and Efficiency as the General Contractor

- Whole house retrofits, aiming for 40% heating energy savings.
 - New combo equipment
 - Deep shell retrofits

You have the customer relationship, and a better reputation than the “remudeler.”

Some whole-building resources

Affordable Comfort Institute,

<http://www.affordablecomfort.org/>

Building Performance Institute

<http://www.bpi.org/>

(Have you heard of ARRA and weatherization?)



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