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The Water Heater Market – A New Opportunity

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D&R International
September 22, 2009

Agenda

- Potential, Potential, Potential
- Installed Base
- Market Overview
  - Distribution Channels
  - Purchase Drivers
- Program Design Considerations

Potential: Large Energy Savings

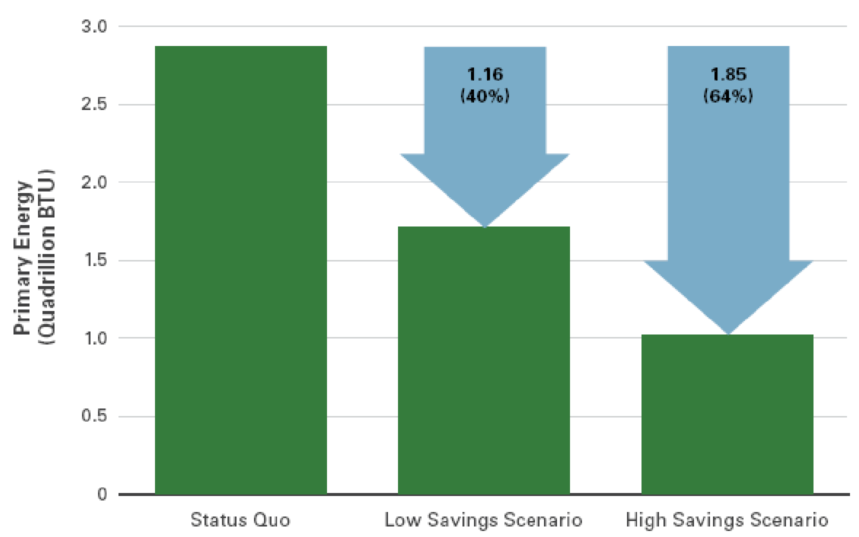
Technology	Energy Savings (per year)	$ Savings (per year)
Clothes Washers	9 therms + 14 kWh; 224 kWh	$54; $45
Dishwashers	2 therms + 33 kWh; 74 kWh	$8; $10
Refrigerators	105 kWh	$12
Room ACs	45 kWh	$5

Technology	Energy Savings (per year)	$ Savings (per year)
Gas Storage	19 therms	$28
Gas Condensing	73 therms	$109
Gas Tankless	78 therms	$116
Solar – Gas	130 therms	$194
Heat Pump	2,662 kWh	$295
Solar – Electric	2,429 kWh	$269

Aggregate Savings Potential

- “Low” savings
  - 1.16 Quads
  - 28 Power Plants
- “High” savings
  - 1.85 Quads
  - 45 Power Plants

Energy Savings Potential from ENERGY STAR Water Heaters



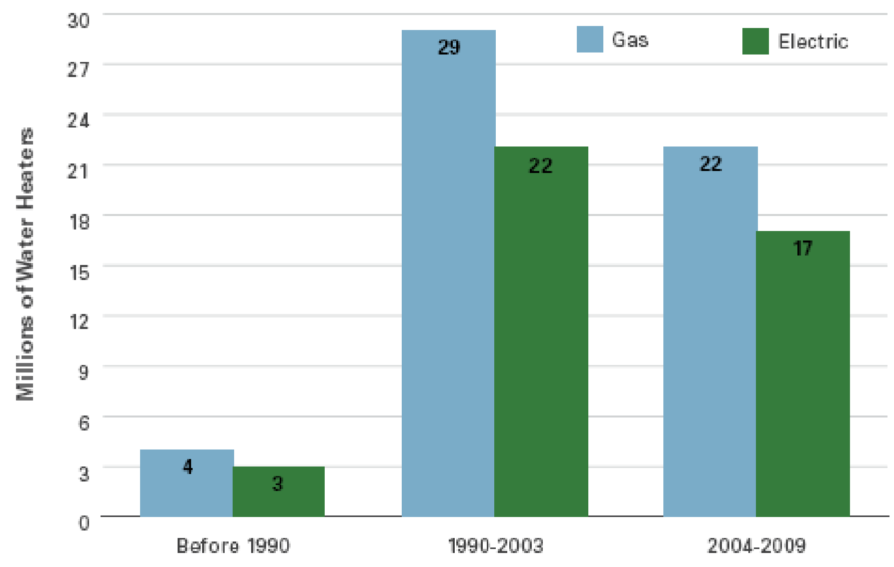
Note: Assumes 52.5 million gas homes acquire high-efficiency gas storage units (EF=0.62) in the low savings scenario and solar water heaters with gas backup in the high savings scenario. Assumes 40.3 million electric homes acquire solar water heaters with electric backup in the low savings scenario and heat pump water heaters in the high savings scenario. Estimates of primary energy savings potential assume a 3.18 site-to-source conversion factor for electricity.

Source: Analysis by D&R International, Ltd. using data from "Residential Energy Consumption Survey 2005," Energy Information Administration, Table HC2.8 and *Annual Energy Outlook 2009*, Energy Information Administration, Table 4.

Installed Base

- Nearly every home in the U.S. has a water heater.
  - 53% gas
  - 40% electric
  - Rest propane, oil, wood fired, etc.
  - Significant regional variation

U.S. Installed Base by Year of Manufacture

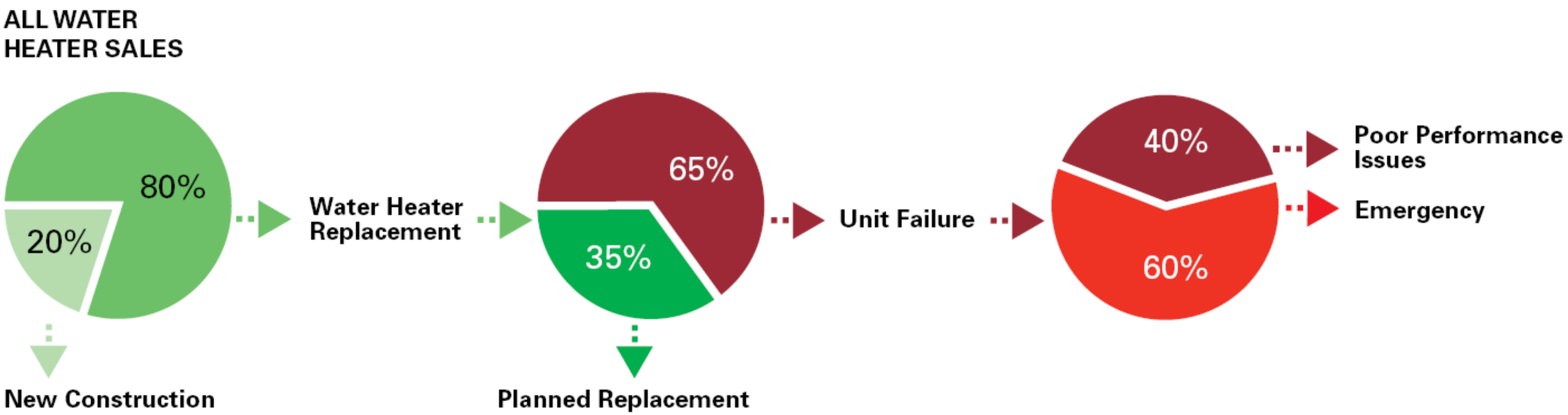


Note: Secondary water heaters are not included in the installed base in this analysis.

Source: Analysis by D&R International, Ltd. of data from Residential Energy Consumption Survey 2005, Energy Information Administration, Table HC2.8.

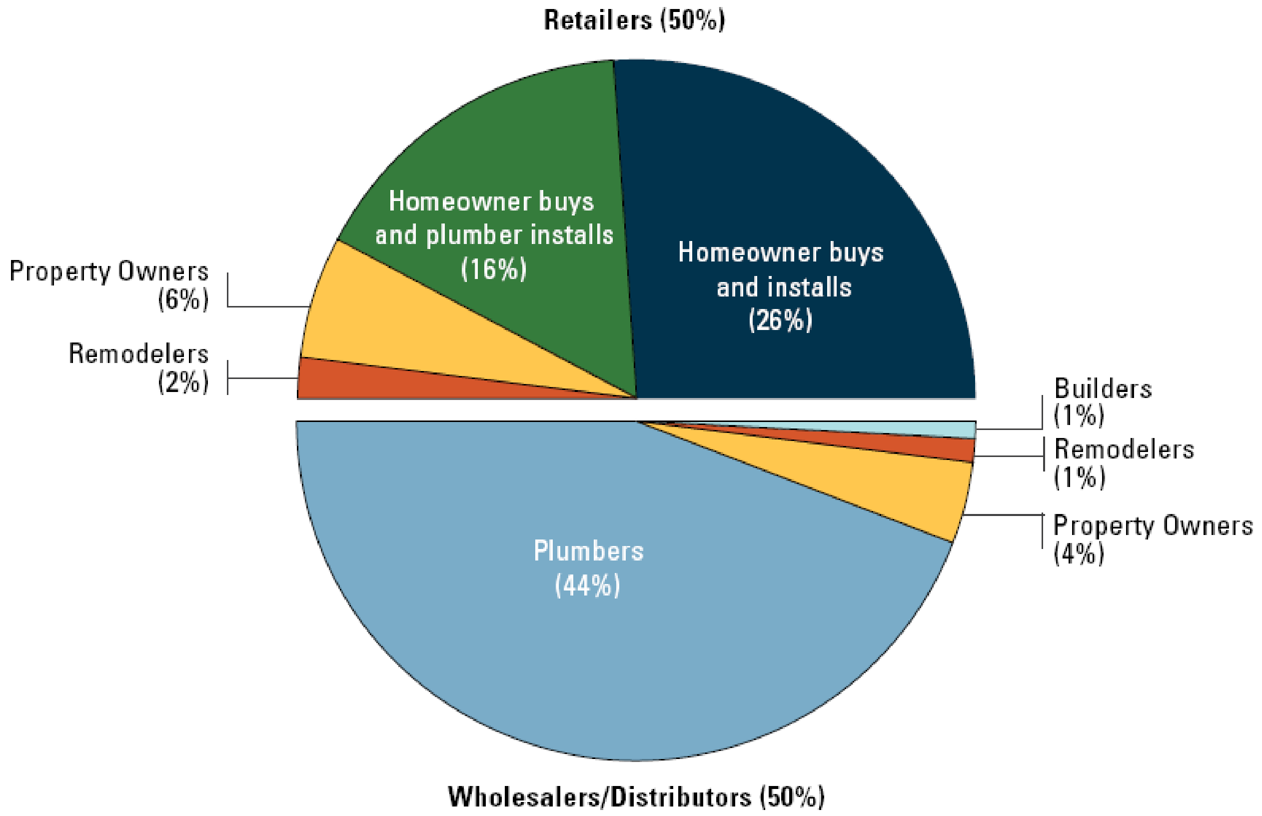
Purchase Drivers

- Why did you buy your current water heater?



- Comparison shopping, and complicated installation are much more difficult in emergency replacement situations

Water Heater Distribution Channels



Source: D&R International, Ltd. based on interviews with water heater manufacturers.

Program Considerations

- Key points of influence:
  - Plumbers!
  - Consumers
  - Retailers and Distributors
  - New home builders

Program Options

- Add water heater to existing programs!
- Appliances
  - Rebate or upstream incentive
  - Tiered rebates
  - Encourage planned replacement
- New homes
  - Require or offer additional incentive
- Home Improvement Programs
- Weatherization Programs

The time is <u>now</u>

- Leverage Federal Tax Credits
  - Significantly improve payback.
  - All except solar expire at the end of 2010!

- Perfect opportunity for ARRA rebate funding
  - Few programs now
  - Easy to tier incentives to ensure “supplement and not supplant”

QUESTIONS?