

# ENERGY EFFICIENCY IS A UNIVERSAL LANGUAGE

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RESIDENTIAL SCIENCE RESOURCES

# INTRO

- Mistake many of us make
- Example – “Right thing to do” approach
- Critical to gain trust of builder – Understand their point of view!
- What things are on the minds of many builders?

# BUILDERS CONCERNS/GOALS



Build  
Better  
Homes



Reduce  
Management  
Time



Reduce  
Litigation



Create  
More Happy  
Customers



Make  
You More  
Money

# MN BUILDERS

- Who is doing large portion of new construction?
- (2013 not released yet)
- (Graph?)
- Top 10 – 2012 did 1,934 homes in MN (Twin Cities)
- Top 11-25 – 2012 did 693 more, totaling 2627.

# WHY RELUCTANT TO TRUST NEW TECH?

- Untested
- Longevity, Warranty
- Future business based on good impression
- \$\$ Value
  - Who pays for?
  - Higher list price?
  - Lower margin?

# GREEN A UNIVERSAL LANGUAGE?

- Environmental Ideology not shared by all
- Must affect our approach at least
  - Message stays same?
- Cannot assume everyone in the room is on the same page
- Our comments, assumptions can make us lose half our audience.

# FROM OUR BUILDERS

- Example case studies...
- Examples Builder feedback...
- Example Solar Ready

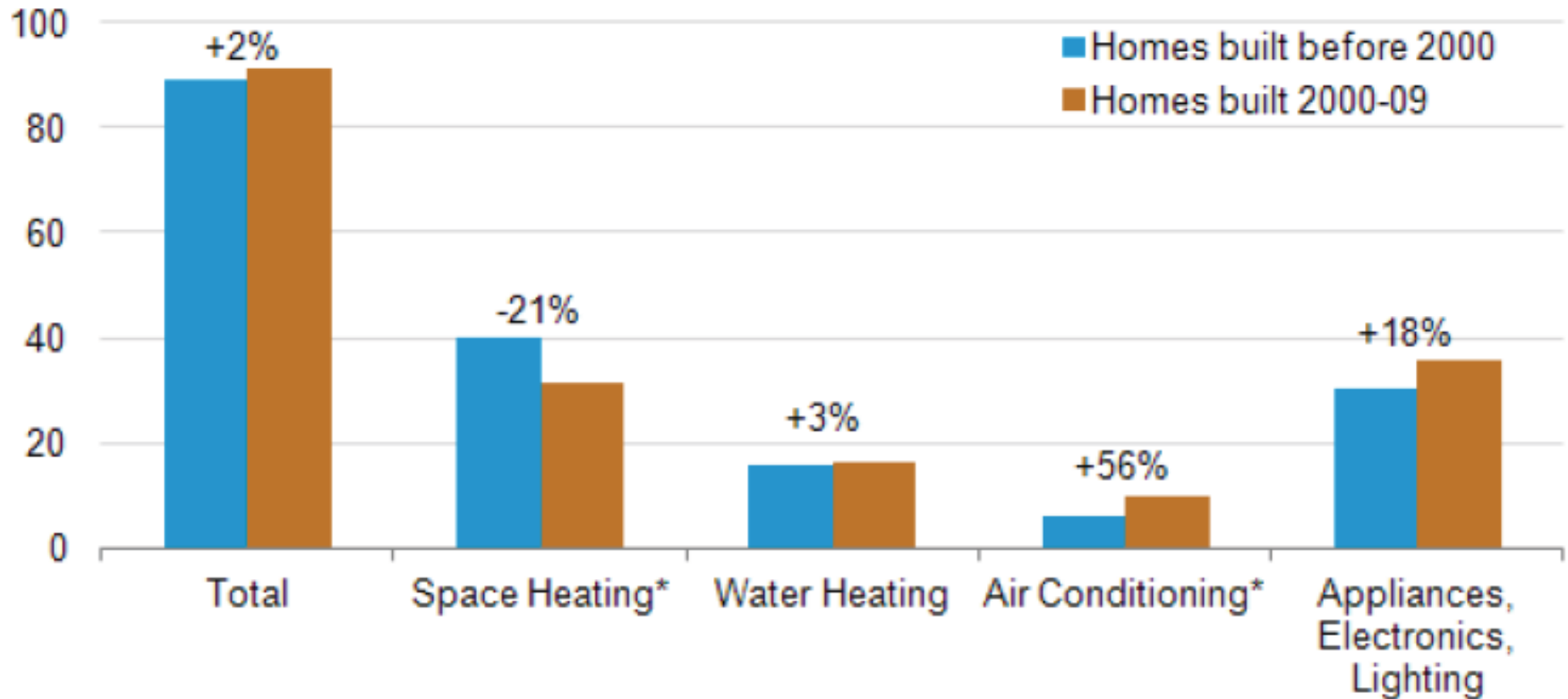
# WHY NEW CONSTRUCTION?

- Existing Homes use more energy
  - See chart –
  - Like running Car's AC with windows down.
- New Homes decide what our future grid load/demand will be for the next 50-100 or more years.
- Unique Opportunity!



# TODAY'S NEW HOME VS 90'S

Average household site energy consumption by end use, 2009  
million Btu per household



# LETS TALK ABOUT ELECTRONICS

- DVR Box – see IR pic
- Using 1000w. Furnace Fan = 500w.
- Homeowner unaware.

# CASE STUDY – DAN GREENE

- 50's tract house in Mahtomedi near WBL. Only house within 10 miles still on LP
- “I can fire my gas man, I can't fire a utility company”
- Probably spent at least 3 times the energy costs?
- Had wrong information
  - Felt he was being shrewd by wanting similar control on his home energy cost.

# COMPARISON TO CARS?

- Concept of mpg very familiar
- Fuel price, we see behavior change
  - Drive across town for \$0.05/gal cheaper?
- Hyper Miler
- WHY SO DIFFERENT?
  - Utility bills – no hands on experience, just pay bill, which is relatively low.
- Example – Hypothetical
  - 3 gas pump options, \$3.15, \$3.25, \$3.35,
    - 4<sup>th</sup> option, \$7.00/gal = *No Emissions*

# BUDGET, DIET, AUDIT... GROSS!

- Distasteful Comparisons
- Similarities
  - Establish baseline
  - Track Behavior
  - Prioritization
- NEW Idea
  - Family interested in High Performance Home
  - 30 day data collection on current usage
  - Tailor new home design to accommodate?
  - Behavior could be prohibitive

# HOME PERFORMANCE CONTRACTORS

- In view of our existing home energy load, why are there so few home performance contractors?
  - Many furnace installers
  - Many Insulation companies
  - Many window companies
  - All use energy efficiency as their “language of choice”

# HUGE BARRIER - HOMEOWNERS

- Generally not interested in paying larger fee for home performance analysis
- Don't want to consider their Home as flawed.
- Investment is intangible
- Reluctant to consider the common mysteries of the home.
  - Why air sealing? I really need windows first.
  - Drinking water used to water my lawn?
  - This old house has always been this way, Is what it is.

# CONCLUSIONS