State Policies to Promote Energy Efficiency Businesses (and why it won’t break the bank)

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Who am I?

• Investment Analyst Specializing in Clean Energy Investing

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Market Failure

• Old Joke:
  – An Economist is a person who would leave a $20 bill lying in the street
  – In an efficient market, someone else would have already picked it up.
Energy Efficiency is like Money Lying on the Street

• Why hasn’t someone picked it up already?
Barriers to Energy Efficiency
Source: *Electric Utilities and Energy Efficiency*. Eric Hirst, ORNL

- **Structural Barriers**
  - Distortions in Energy Pricing
  - Limited Supply Infrastructure

- **Behavioral Barriers**
  - Attitudes & Awareness
  - Perceived risk
  - Limited capital
  - Misplaced incentives
  - Inconvenience, loss of amenities
The Role of Government

- Market failures lead to untapped energy efficiency.
- Government should intervene to help fix these market failures.
Regulated Markets

• Tell the Utility Regulator that increased energy efficiency is in the public interest.
• Consider Utility disincentives to promoting EE.
  – Decoupled rate structures
  – Consider Non-Energy Benefits in resource planning
Utility Regulator Has Broad Powers to Promote EE

• Legislature should to pass laws to make it a priority

• Colorado HB 07-1037: Directs the Public Utilities Commission to
  – Establish a cost recovery mechanism to allow the utility to recover prudent expenditures on EE (both electric and gas)
  – Provide a financial incentive for such programs.
All Markets: Broken Feedback Loops

• Barriers:
  – Distortions in Energy Pricing
  – Misplaced Incentives

• Most consumers don’t know when they are wasting energy, and even if they do, they don’t pay enough that it’s worth their time to care
Better Feedback Loops

- Laws to encourage smart grid technology
- Devices to increase awareness of current energy usage and cost
- Information is empowering

“Joule meter” from ConsumerPowerline
Information Empowers

• In 1989, Woodstock Hydro gave customers at risk of not paying their bill pre-payment meters.
• The meters displayed rate of consumption, as well as $ and Power remaining.
• Electricity usage in these households dropped 15% immediately.
The Culture of Energy Inefficiency

• Barriers:
  – Attitudes and Awareness
  – Perceived Risk
  – Inconvenience, Perceived Loss of Amenities

• If Energy Efficiency…
  – Makes you more comfortable
  – Makes for a safer home
  – Saves Money

• Why isn’t everybody doing it?
Instilling a Culture of Energy Efficiency

- Use the Bully Pulpit
- Use Bureaucracy to distribute information about energy efficiency
  - Safer, More Comfortable, More reliable
- Elementary School Programs
Instilling A Culture of Energy Efficiency

- Name & Shame
- Publication of power usage on Internet
- Infrared Photos
- Energy Efficiency in Building Codes
- School curriculum

Infrared map of Haringey, UK
Conclusions

• Energy usage is not an Efficient Market
  – There are $20 bills on the side walk
• Energy Efficiency will pay for itself AND bring benefits to your state
• The role of government should be to
  – Utility regulator should provide incentives for EE.
  – Provide information and encouragement
  – Remove structural and regulatory barriers