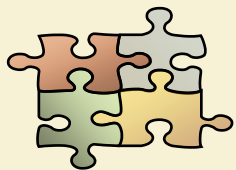


Policy Innovations and People: Active Participants in the Energy Revolution



Karen Ehrhardt-Martinez, Ph.D.

ACEEE 30th Anniversary Symposium: Energy and the Economic Imperative,
April 26, 2010

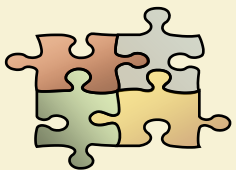


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An Energy Revolution

- Leading an Energy Revolution
- “Science and technology can create much better choices.” (Chu 2009)
- We won’t get there unless we bring people back into the process.



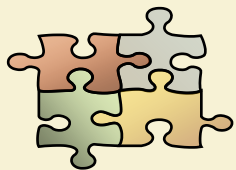
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Creating an Energy Revolution

A revolution doesn't happen when society adopts new tools, it happens when society adopts new behaviors.

Clay Shirky, Digital Guru

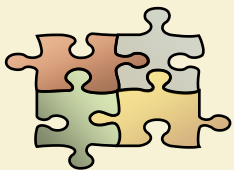


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Three Critical Misperceptions

1. **People are Economically Rational Actors,**
 - People may be better characterized as predictably irrational
 - People are often making rational decisions from non-economic vantage points
2. **People are Alike in Their Energy Consumption Practices– knowing the average is sufficient**
 - There is significant variation throughout the population according to culture, gender, geography, age, political outlook, etc
3. **People Know What They can/should Do**
 - Most people don't know how much energy they are consuming nor to what end uses
 - Most people don't know the best way to reduce their energy consumption



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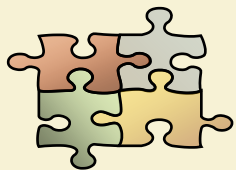
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Energy Practices Matter as Much as Efficiency Technologies

What is Possible?

- In 6 weeks Juneau Alaska cut it's electricity consumption by more than 30 percent.
- A dramatic conservation campaign resulting from a sense of urgency and efficacy.
- Post-repair electricity consumption remained 10 percent lower than one year earlier.
- Juneau's experience represents the effectiveness of broad mobilization to save energy.

Source: Meier 2009



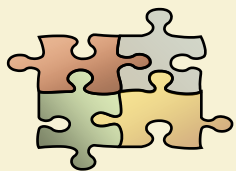
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Potential Near-Term Household and Personal Transportation Energy Savings

Category of Actions	Potential National Energy Savings (Quads)
Conservation, Lifestyle, Awareness, Low-Cost Actions	4.9 (57% of total savings)
Investment Decisions	3.7 (43% of total savings)
<i>Total Energy Savings</i>	~8.6 +/- 1.5 (22% of HH energy)

Source: Laitner et al. 2009

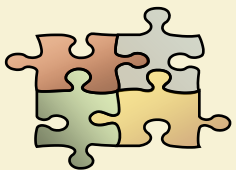


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How can we bring people in?

- **Targeting** – tailoring approaches for different types of people and actions
- **Informing** – providing information regarding energy, technologies, and programs
- **Motivating** – using norms, networks, goals and commitments to reshape behaviors
- **Empowering** – removing financial and structural barriers and providing better choices

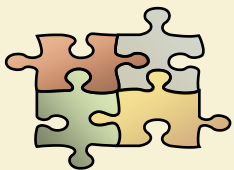


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Targeting – People and Actions

- **Survey Research** – Identify how perceptions and behaviors vary across the population and which population segments and behaviors to focus on.
- **Social Marketing and Community-Based Social Marketing** – work with local communities to create targeted programs that recognize local concerns and conditions, remove barriers.
 - **Home Weatherization?**
 - **Smaller Houses?**
 - **CFLs?**
 - **Air drying laundry?**
 - **Public Transportation?**
 - **Anti-Idling?**



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Informing – Energy Consumption, Technologies, and Programs

- Energy Consumption Feedback

The Energy Detective

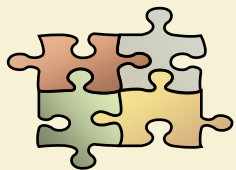


Savings: 5-15%



Power Cost Monitor

Source: Ehrhardt-Martinez et al. 2010

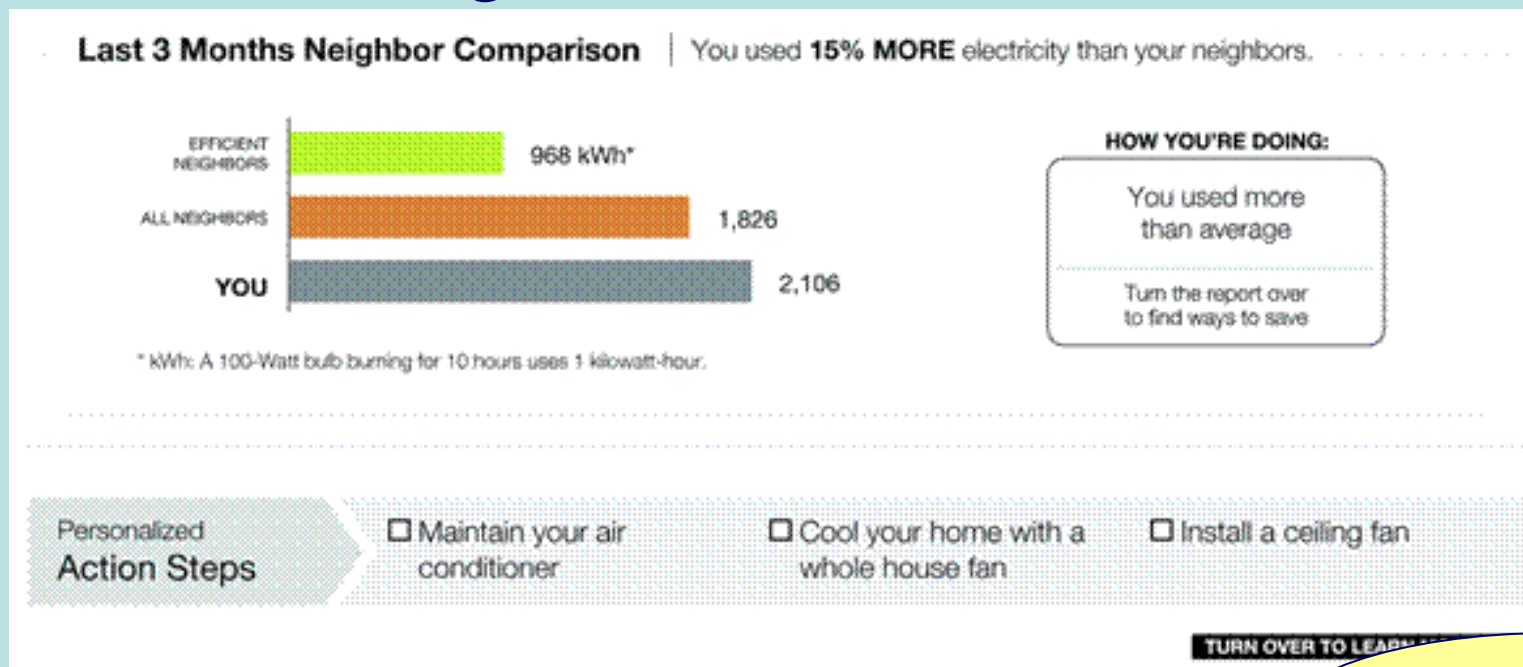


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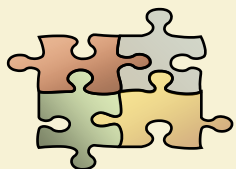
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Motivating – Norms, Networks, Goals, and Commitments

- Communicating social norms to provide context and meaning



Savings: 2.5-3.0%

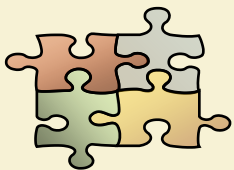


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Empowering – Removing barriers and providing better choices

- Choice Architecture
 - Choice architecture is about creating a context in which people are likely to make better decisions – decision that will make choosers better off, *as judged by themselves.* (Thaler and Sunstein 2008)
 - Inertia and the Status Quo Bias
 - BECC Low-Carbon Lunch Experiment



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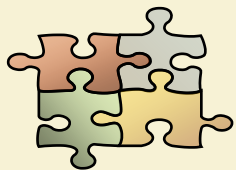
BECC Low-Carbon Lunch

	ACEEE Conference Standard	BECC 2007	BECC 2009
Meat-Based Lunch	90-95%	83%	20%
Veg. Lunch	5-10%	17%	80%

Meat production is responsible for 18% of GHG emissions – around 40% more than the entire transport sector (Pew Commission 2008)

Omnivores contribute 7 times the GHG emissions than vegans

Large Indirect Savings

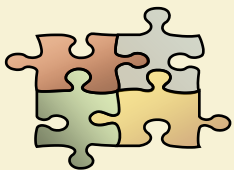


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Closing Thoughts

- Revolutions don't Happen without popular support and widespread participation.
- We need policies that engage and empower broad participation and that build a sense of self-efficacy.
- Understanding the Human Dimensions of Energy Savings is *Essential* for Meeting Climate Change Goals.
- More Social Science Needs to be Integrated into Energy and Climate Change Policy.



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References and Resources:

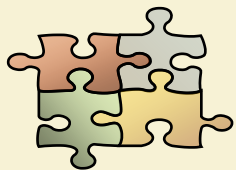
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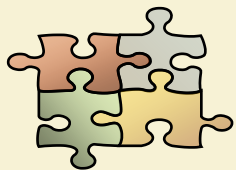
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