

Energy Efficient Behavior in a Regulatory Environment:

Motivating Program and Policy Personnel to
Help Empower Consumers



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Purpose and Goals

Purpose:

Identifying effective means of motivating program and policy personnel to pursue behavior change strategies.

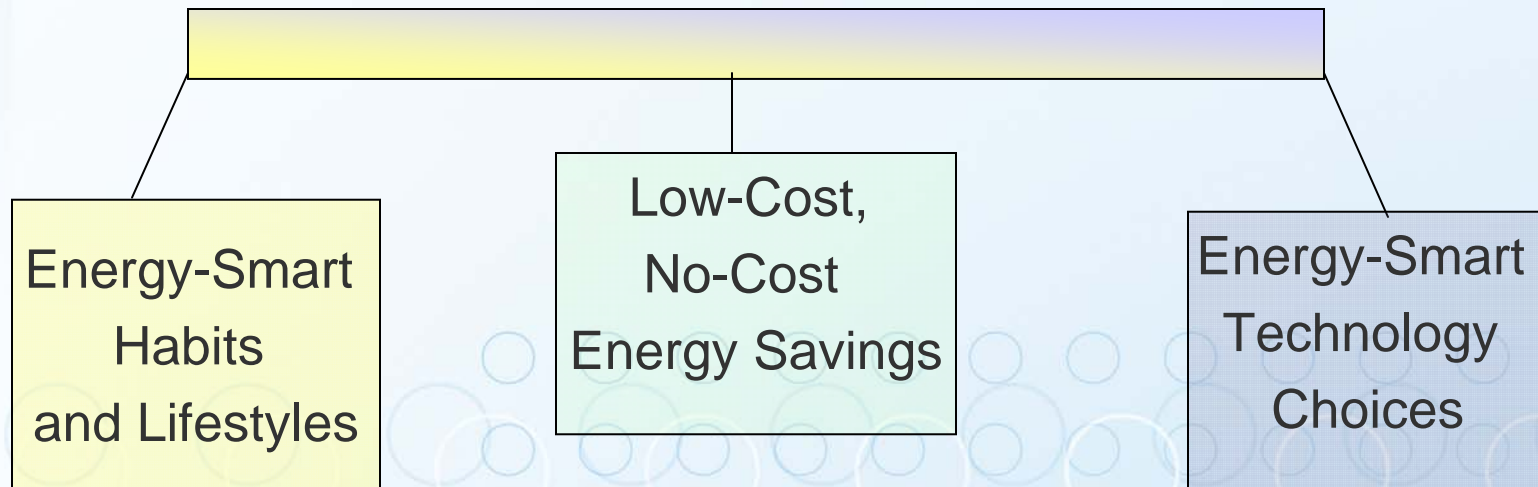
Goals:

- (1) Mapping the conceptual landscape: What are behavior change strategies?
- (2) Identify the means and contexts for motivating the adoption of these strategies.
- (3) Specify effective policy options to facilitate their adoption.

Some Conclusions

- ☀ Behavior change strategies offer the potential of large-scale energy savings.
- ☀ Many energy professionals are already motivated to pursue behavior change strategies.
- ☀ A combination of major and minor barriers is constraining the pursuit of behavior strategies.
- ☀ Numerous recommendations are made to reduce existing barriers and encourage the use of behavior change strategies.

Conceptualizing Energy-Related Behaviors: A Continuum of Behaviors



Categories of Residential Energy Behavior

		<i>Frequency of Action</i>	
		<i>Infrequent</i>	<i>Frequent</i>
<i>Cost</i>	<i>Low-cost or No cost</i>	Energy Stocktaking Behavior and Lifestyle Choices Install CFLs Pull fridge away from wall Install Weather Stripping Choose a Smaller Living Space	Habitual Behaviors and Lifestyle Choices Wash in Cold Water Take Shorter Showers Air Dry Laundry Turn Off Computer & Other Devices
	<i>Higher cost / Investment</i>	Consumer Behavior & Technology Choices New EE Windows New EE Appliances Additional Insulation New EE Car New EE AC or Furnace	

Two Behavior Change Camps

	Traditional Techno-Economic	New Social and Behavioral
Target Behaviors	Awareness and purchase of energy efficient products.	Technology choices, Energy stocktaking, Habits, and Lifestyles
Change Strategies	Information and Financial Incentives	Goals, competitions, modeling, commitment, tailored information, feedback, social norms, community-based social marketing.

Behavior Change Strategies

- Information and Mass Marketing
- Economic incentives
- Goals
- Targeted Information
- Modeling
- Social Norms
- Feedback
- Rewards
- Commitments
- Increased awareness but no change in behavior.
- Good for technology purchases but otherwise short lived.
- as high as 15% savings.
- as high as 21% savings.
- as high as 10% savings.
- mixed results.
- 5 to 15% savings.
- 5 to 10% savings.
- amplifies savings from feedback.

The Real Scope of Behavior-Related Energy Savings

Laitner et al. 2009

Preliminary research suggests that changed behaviors might reduce household use of energy by about 22 percent within the U.S. over a 5-8 year period. . . .

With added insight, information, and/or learning, the resource could grow substantially larger. . . .

..

Gardner and Stern 2008

U.S. households account for about 38% of national carbon emissions ... a level of emissions greater than that of any entire country except China...

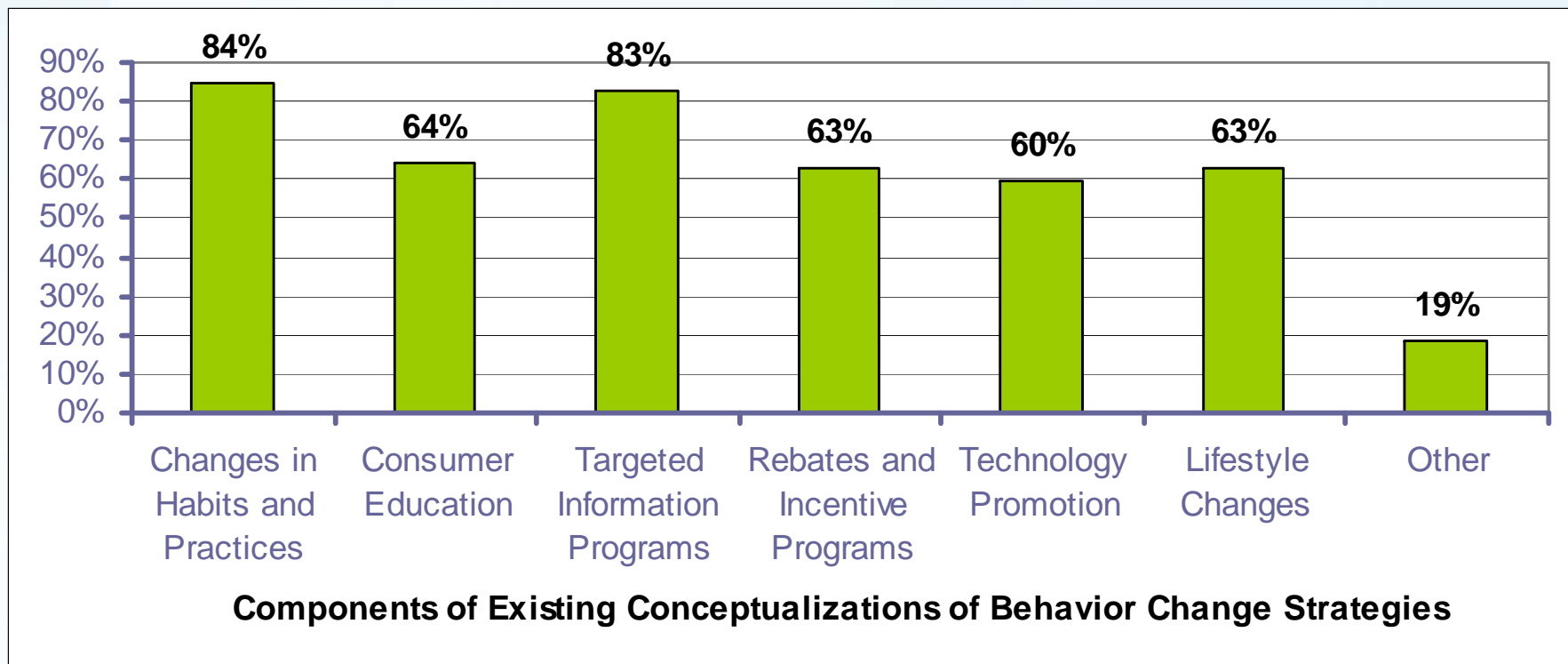
By changing their selection and use of household and motor vehicle technologies... households can reduce energy consumption by almost 30% —about 11% of total U.S. consumption.

The interest in potential behavior-related energy savings is large and growing.

The Opportunities and Constraints

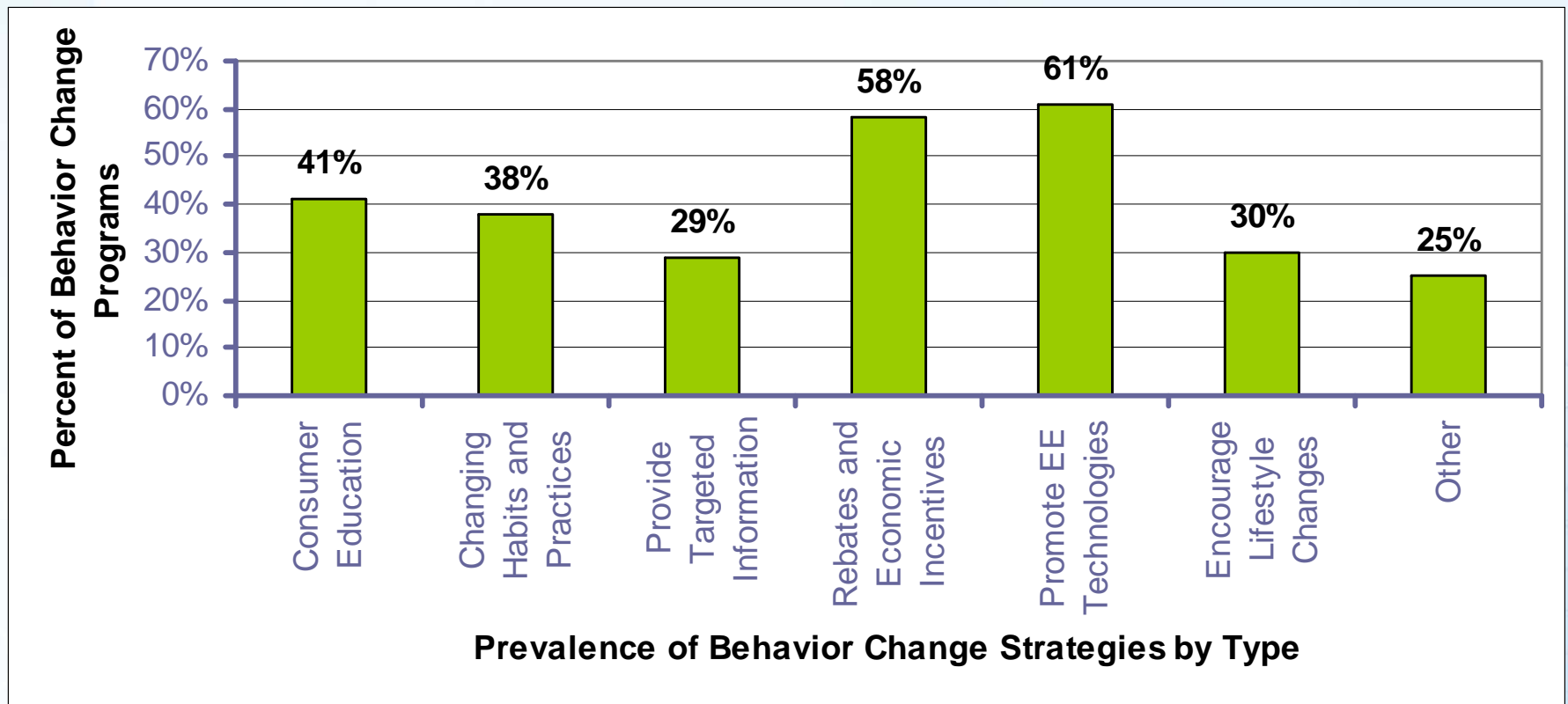
- ❖ Existing camps
- ❖ Existing programs
- ❖ Organizational interest
- ❖ How much is enough?
- ❖ Perceived constraints

Existing Camps and the Conceptualization of Behavior Change Strategies

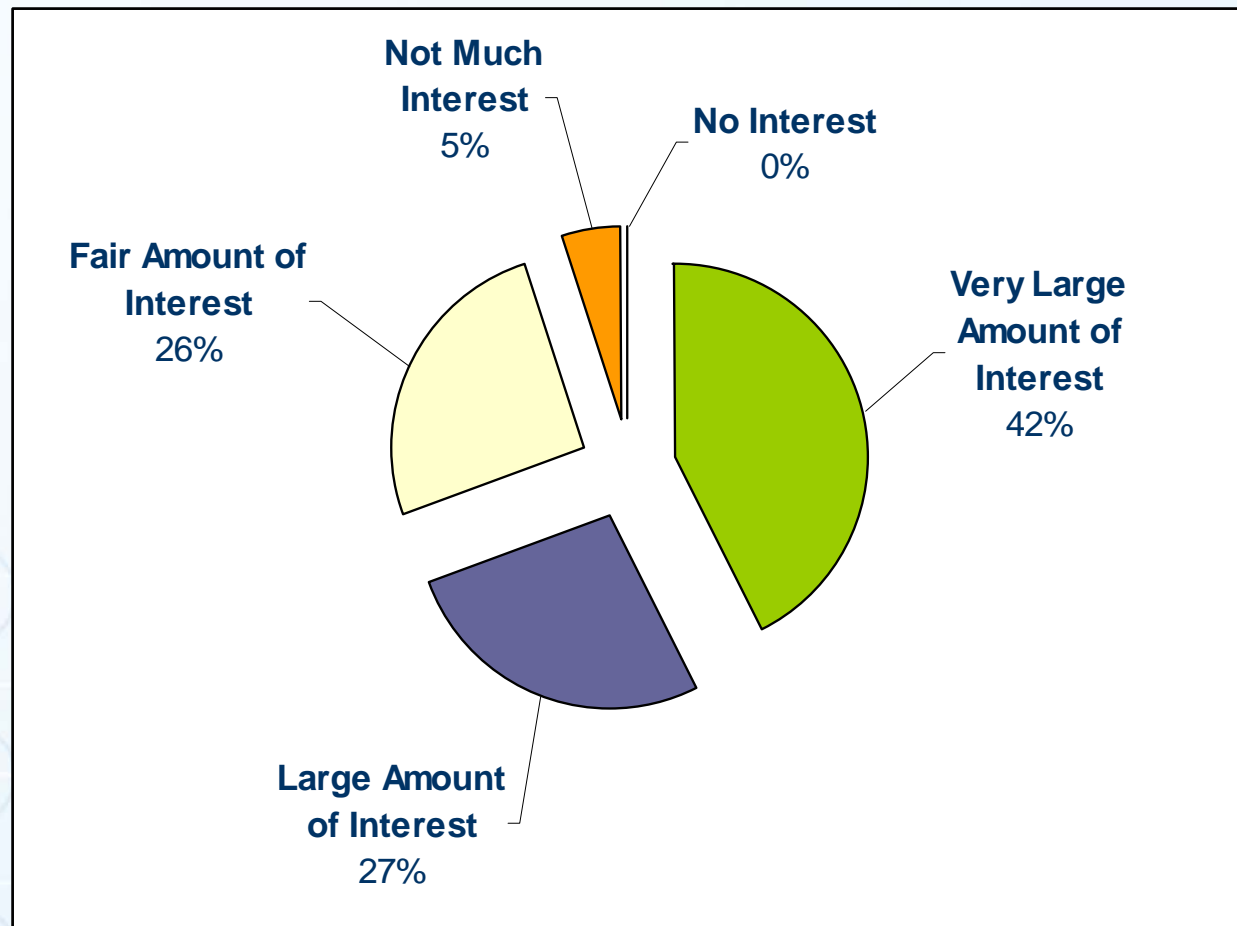


Source: Ehrhardt-Martinez et al. 2009

Existing Programs: Prevalence of Behavior Change Strategies

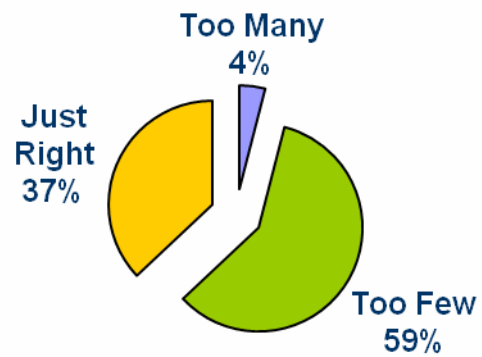


Organizational Interest in Behavior Change Strategies

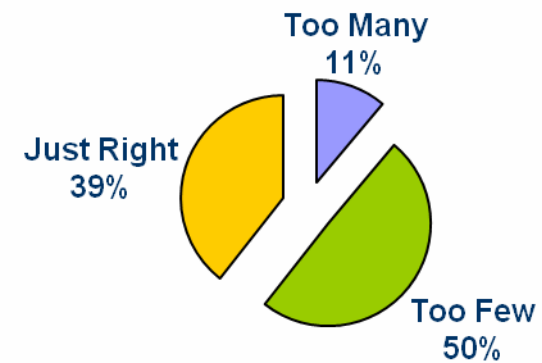


How Much is Enough?

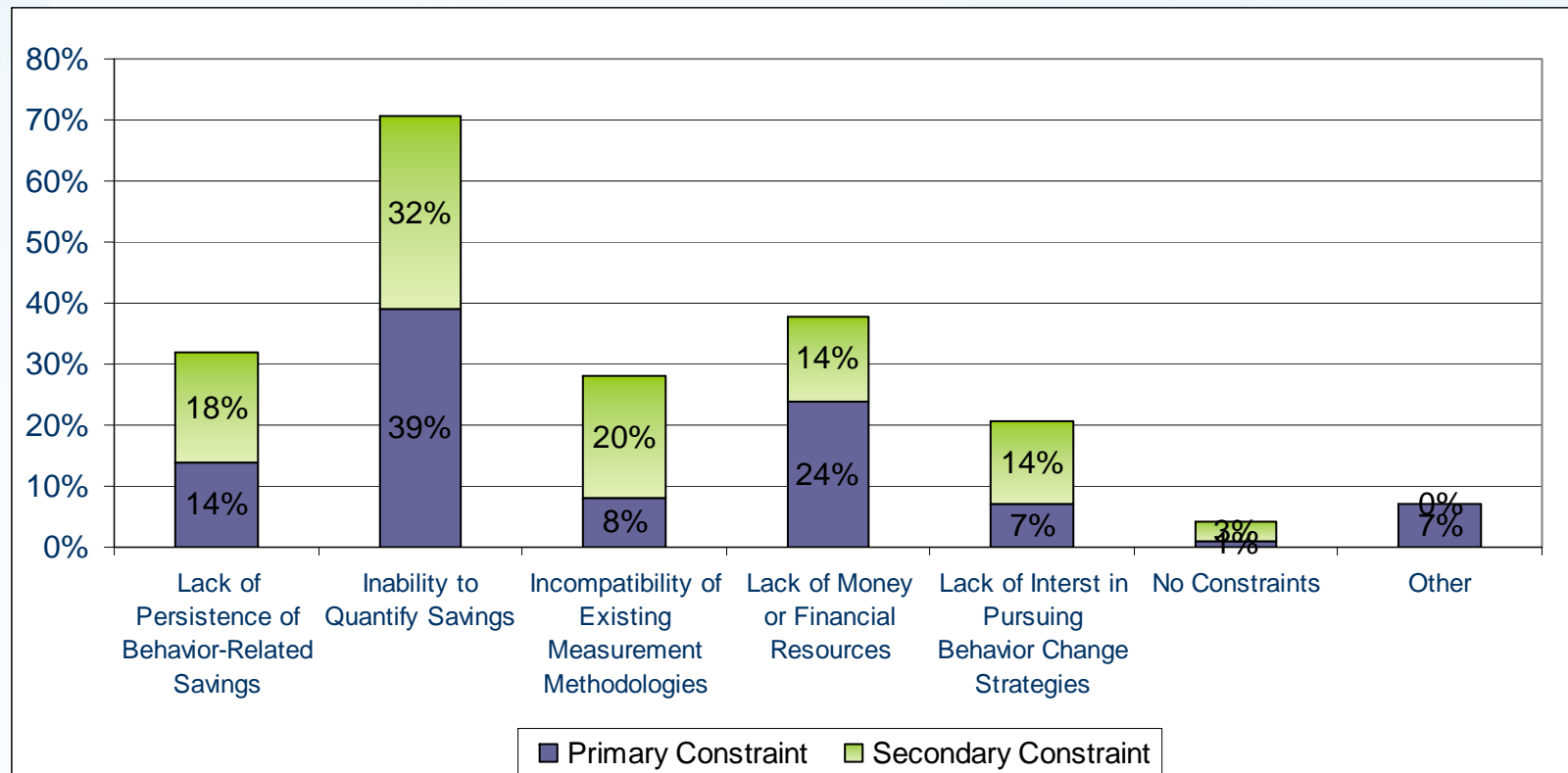
All Respondents



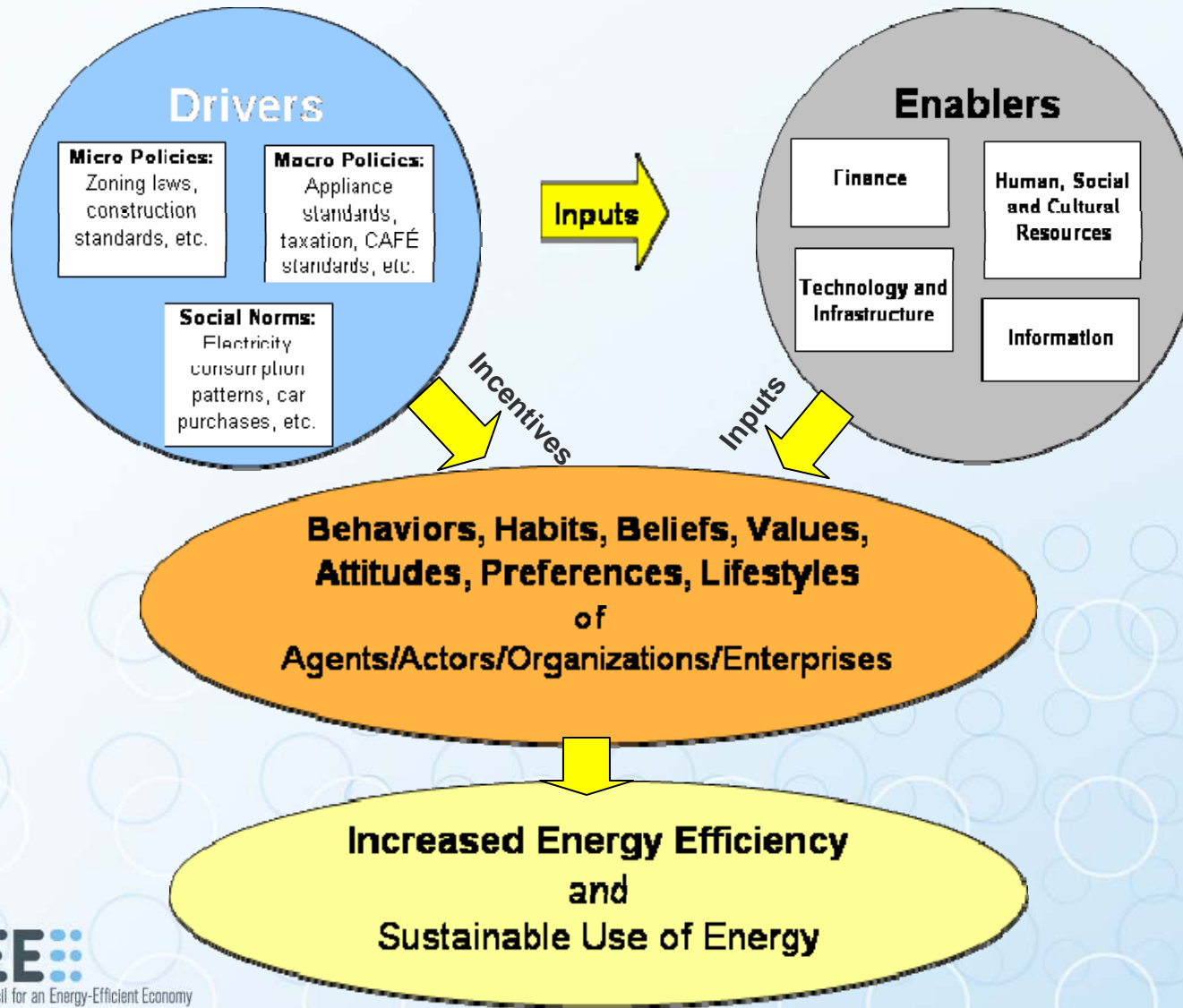
California Respondents



Perceived Constraints



Rethinking Mental Frameworks: Drivers, Enablers, and Behavior



In a Nutshell

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

Digital Guru Clay Shirky

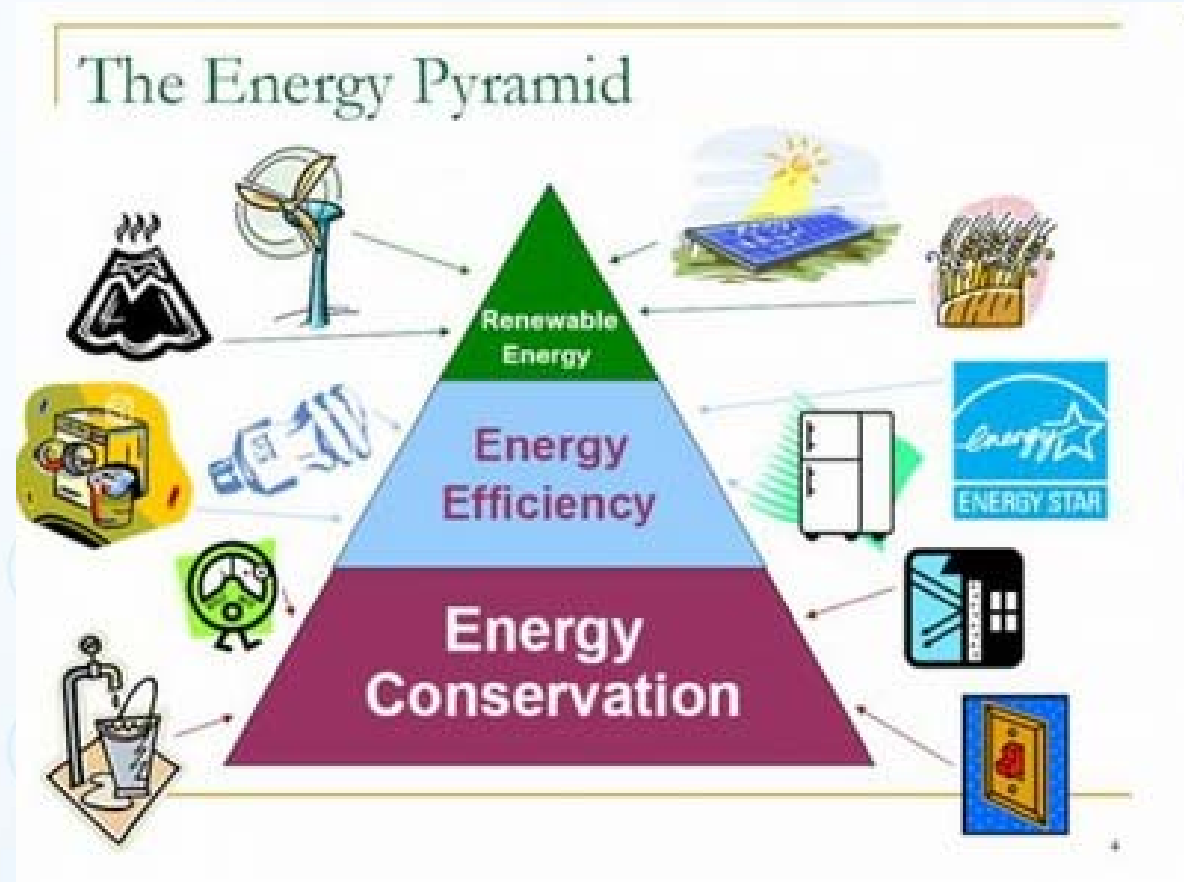
Barriers and Constraints

- ☀ Disincentives currently outweigh incentives for behavior change strategies.
- ☀ Behavior strategies are often viewed as riskier with energy savings that are less well documented and more difficult to measure.
- ☀ Established measurement and evaluation methodologies tend to undercount the energy savings from behavior.
- ☀ Institutional culture favors technology-based approaches and provides only limited space or flexibility for pursuing alternative approaches.

Primary Recommendations

- ❖ Encourage more research and experimentation to expand the base of reliable knowledge.
- ❖ Revise evaluation and attribution methods so as to better account for energy savings from behavior change strategies.
- ❖ Adjust existing accountability practices to allow program managers more leeway to incorporate behavior change strategies and apply qualitative measures of customer satisfaction.
- ❖ Work to broaden the purview of utility regulators so as to enable greater investment in a broader range of cost-effective programs — particularly behavior change strategies — and to encourage more social scientists to join the staff at all levels.

Engaging and Empowering People





Behavior, Energy and Climate Change Conference

November 15-18th, 2009

Marriott Wardman Park, Washington, DC

www.BECCconference.org

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