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STATE & LOCAL ENERGY EFFICIENCY ACTION NETWORK

Forum on Delivering Energy Efficiency to Middle Income Households

Presented by the SEE Action Residential Retrofit Working Group

March 26, 2012

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SEE Action Residential Retrofit Working Group

- Working Group led by two co-chairs with varied backgrounds, from different regions
- 24 members with wide representation—including energy efficiency program administrators, policymakers, professional, industry consortiums, home energy practitioners, etc.

Co-Chairs	
Frank J. Murray, Jr.	NYSERDA
Susan Ackerman	Oregon Public Utilities Commission
Dian Grueneich	California Public Utilities Commission (former co-chair)
Policymakers	
Walt Auburn	Maryland Energy Administration
Rick Hanson	City of Jamestown Housing & Community Development t Dept
Tom Plant	Colorado Governor's Energy Office (formerly)
Gerald Shechter	Kansas City Office of Environmental Quality
Karen Hamilton	NYSERDA
Industry	
Rick Gerardi	New Dawn LLC
Duncan McCulloch	Sears Home Improvements
Keith Williams	Building Services and Consulting LLC
Research/ Academia	
Loren Lutzenhiser	Portland State University
Coordinating Organizations	
Jared Asch	Home Performance Resource Center
Matt Golden	National Home Performance Council
William Johnson	Green America Public Private Partnership
Warren Lupson	AC, Heating, and Refrigeration Institute
Kevin Reilly	Laborers' International Union
Kara Saul-Rinaldi	National Home Performance Council
Bob Scott	National Association of State Community Service Providers
Ed Wisniewski	Consortium of Energy Efficiency
Practitioners/Utilities	
Diane Ferington	Energy Trust of Oregon
Tom Hines	Arizona Public Service
Sandy Hochstetter Byrd	Arkansas Electric Cooperative Corp.
Steve Saenz	Austin Energy
Theresa Spurling-Wood	Gainesville Regional Utility
Ben Taube	Southeast Energy Efficiency Alliance
John Tooley	Advanced Energy

Working Group Goal and Priorities

Goal

Significantly increase the number of comprehensive, durable, performance-based home energy upgrades through a robust, sustainable home performance industry.

Priorities

I. Improve Residential Energy Efficiency Program Design

1. Improve the quality of home energy upgrade program design and implementation
2. Rigorous quality assurance standards and workforce training

II. Enable Access to Capital

3. Improve access to credit for both product and service providers
4. Improve access to financing for customers

III. Increase the Market Value of Home Energy Upgrades

5. Increase the value of home energy upgrades, through labeling, disclosures, education, data collection, etc.

IV. Bolster Energy Efficiency Funding & Policy

6. Increase funding from utility customers
7. Maintain or increase taxpayer funding for state and local programs
8. Offer federal rebates and tax credits for home energy upgrades
9. State & federal Clean Energy Commitments
10. Federal CO_2 legislation with funding to support home energy upgrade programs

Addressing Moderate Income Program Design & Delivery

- **Rationale**:
  - Targets the middle third of U.S. households by income – a large yet hard to serve market segment
  - Moderate income customers are credit/equity challenged and highly impacted by energy costs
- **Approach:**
  - Leverages technical research underway at LBNL and expertise on RRWG by convening key implementers and administrators in calls and webinars
- **Audience:**
  - Federal/state policymakers, program administrators, regulatory bodies, foundation managers

Delivering Energy Efficiency to Middle Income Single Family Households

Environmental Energy Technologies Division
Lawrence Berkeley National Laboratory

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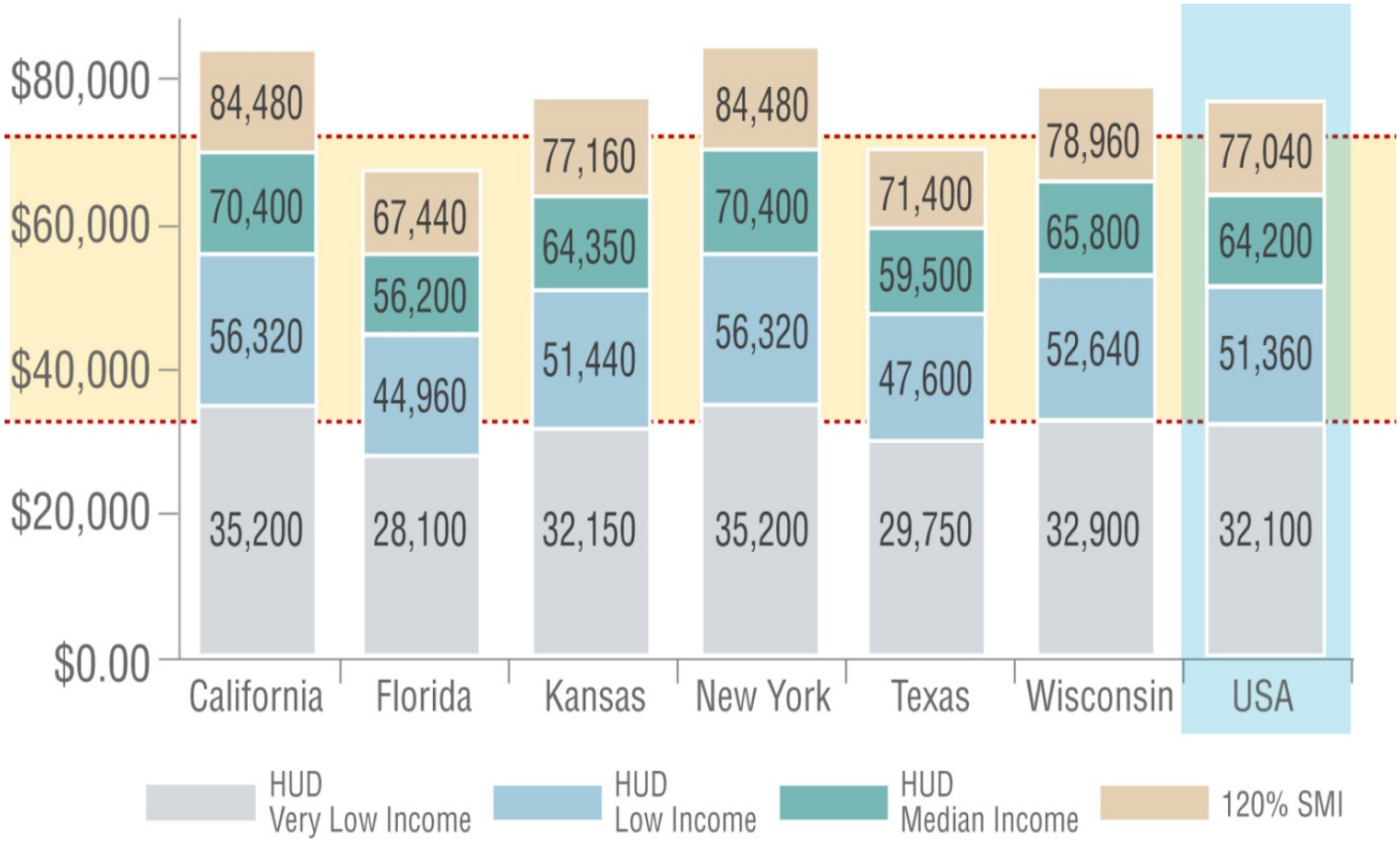
December 2011

Defining middle income (MI) households

The middle third of U.S. households by income earn $32,500 to $72,500.



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Source: U.S. Census. Current Population Survey, Annual Social and Economic (ASEC) March 2011 Supplement

NEEDS

- Ensure energy savings justifies aggregate package (= outlay/payments)
- Mechanism for getting homeowner feedback
- National data repository on savings performance
  - Standardized
- Enhanced regulatory, statutory approaches
  - Enable savings credit for code dev. & compliance
  - End-use standards
  - Home performance/retrofit mandates – transactional triggers
- Compatible energy performance scoring

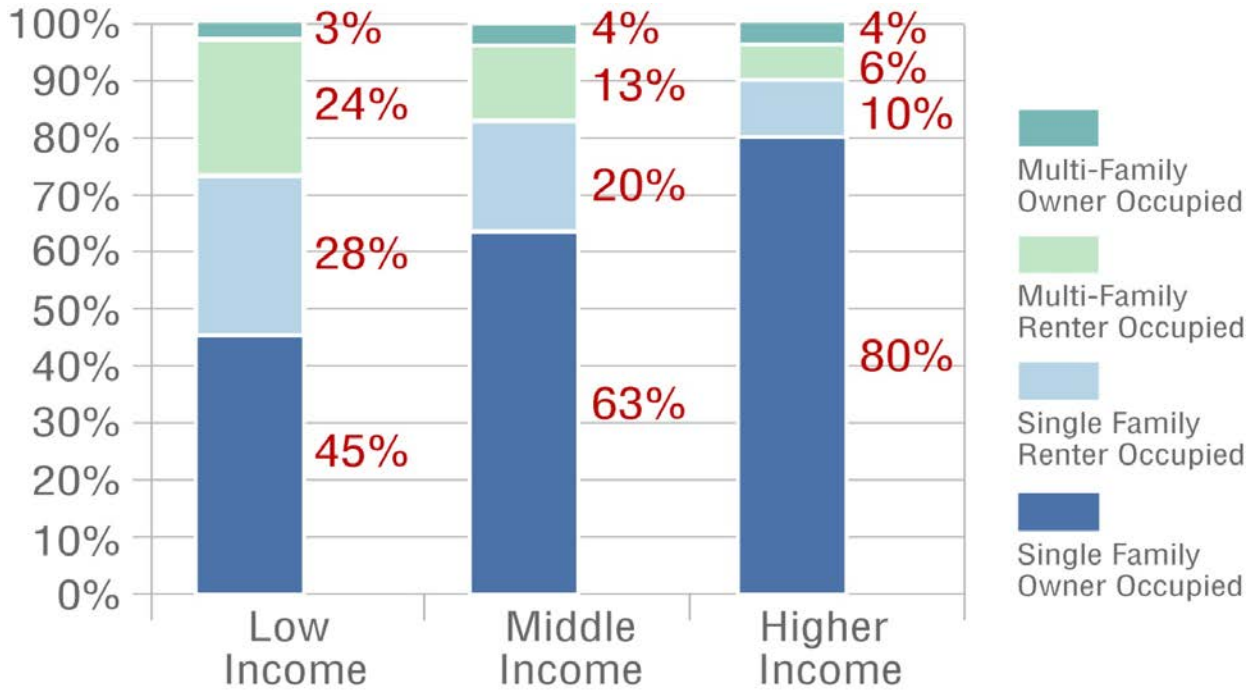
NEEDS

- Integrated marketplace/value chain
- Education – cultivate energy savvy, teach building science in schools

Most are single family, owner-occupied

Most middle income (MI) households live in, and own, single family homes—single family homes are the focus of this report*

- 83% of MI households live in single family homes
- 67% of MI households own their homes or apartments



* Single family homes include mobile homes and 1-4 unit dwellings

Source: U.S. Census. 2010 Current Population Survey.

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Their energy costs are significant

- Middle income households will spend about $80 billion on residential energy in 2011 (~$1,900 / household).
- Total home energy cost remains a small fraction of gross income – about 4% – but is quite significant compared to other household spending.
- For a median-income household, energy spending is equivalent to:
  - >50% percent of spending on food at home
  - 65% of healthcare spending
  - Nearly 1.4 times spending on clothing

Big $$ spent on home improvements

- Millions of Middle Income households are performing some type of home improvements every year.
- From 2008 to 2009, they spent $83.6 billion.
- About $18.2 billion of these MI home improvements – roughly 22 percent – were potentially energy-related.

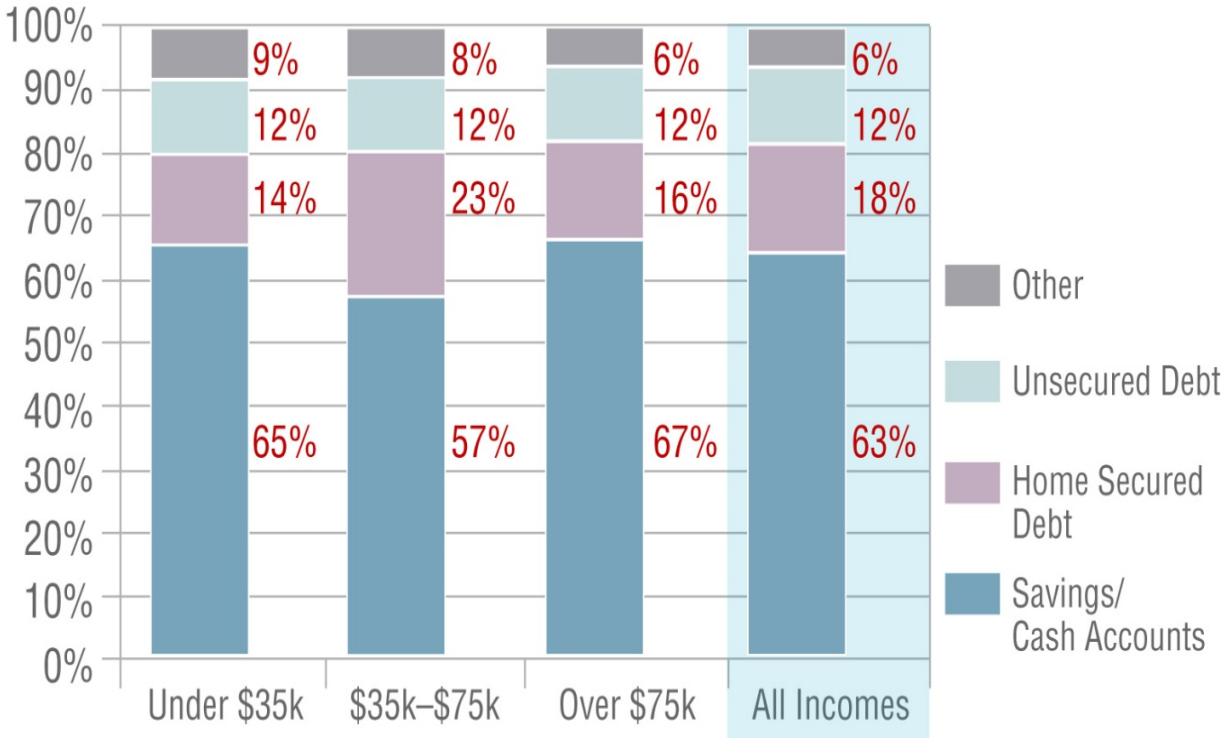
- These numbers suggests a huge opportunity for realizing efficiency by "nudging households" into more efficient materials and equipment and then incentivizing add-ons.

Source: 2009 U.S. Census

Financing is important for this market

The upfront cost of home energy improvements is a significant barrier to investment. Energy upgrades for just 1/3 of the 32 million middle income single family households would require $30-$100 billion.

Home Improvement Financing Patterns by Income in 2001



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Source: Guerrero, A. M.. 2003. *Home Improvement Finance.* Joint Center on Housing Studies, Harvard University.