

# POLICY APPROACHES IN THE USA

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# Outline

- U.S. Department of Energy Weatherization Assistance Program -- ARRA Period
- Weatherization Innovation Pilot Program
- Sustainable Energy Resources for Consumers Program
- State and Local Agency Perspectives
- ORNL ARRA-Period Evaluation Activities
- Benefits of Evaluation Going Forward

# WAP ARRA PERIOD

- WAP received \$5 billion in American Recovery and Reinvestment Act (ARRA) Funding (vs. ~ \$250 million annually pre-ARRA)
- More than doubled the national weatherization workforce
- Almost tripled number of homes weatherized annually
- Increased funding in hot climate states and U.S. territories
- Funded innovations – e.g., publically assisted housing
- Future WAP funding is expected in the \$300m to \$350m annually ?????

# CHALLENGE

- How to maintain ARRA weatherization levels and infrastructure post-ARRA?

# WEATHERIZATION INNOVATION PILOT PROGRAM (WIPP)

- Sixteen grants, with matching funds, \$120 million program
- Exploring innovative financing of low-income weatherization
  - Revolving loan funds, ESCOs and multi-family buildings, on-bill financing, mortgage financing, property tax financing, carbon offsets
  - Can these programs provide benefits financed from savings?
- Exploring other innovations
  - YouthBuild and Habitat for Humanity: can alternative workforce work?
  - Healthy homes
  - In-home energy use monitors

# SUSTAINABLE ENERGY RESOURCES FOR CONSUMERS PROGRAM (SERC)

- One hundred three grants; \$30 million program
- Focuses on installation of renewable energy and advanced energy efficiency technologies – e.g., solar PV, solar hot water, cool roofs, tankless hot water
- Should any of these technologies be included in the list of approved technologies for WAP?
- How can they become more cost effective to meet Savings-to-Investment Ratio text? Or should SIR policies be change re renewable technologies?
- What is the impact of these technologies on household energy security?

# STATE AND LOCAL AGENCY PERSPECTIVES

- Add Fee for Service Programs?
- Tie into home rating programs such as Home Energy Score ?
- Begin to offer healthy homes audits?
  - Should agencies expand into non-low income programs?
- Increase weatherization of large multi-family buildings that require owner investments?
- Work hard to re-build and establish new leveraging relationships
  - States (e.g., system benefit charge programs), LIHEAP, utilities
  - A particular challenge states with historically small programs

# ORNL ARRA-PERIOD EVALUATION ACTIVITIES

- ORNL is implementing evaluations of both WIPP and SERC
  - Economic benefits; implementation issues
  - Energy savings; quality of work
  - Client satisfaction with innovative services and technologies
- Other key evaluation activities include:
  - Energy savings persistence study
  - Social network study
  - Weatherization deferral study
  - Under-performing homes and buildings studies



# BENEFITS OF EVALUATION GOING FORWARD

- Estimate gains in non-energy benefits under ARRA over pre-ARRA
  - National energy savings, Household energy security, GHG emissions, Local employment
- Provide insights into benefits of innovations
  - WIPP, SERC, publically-assisted housing
- Lay the foundation for important policy discussions
  - Weatherization and indoor air quality
  - Average investments in homes (e.g., \$2500 vs. \$6500)
  - Expand program activities (e.g., water, deeper retrofits)
  - Revise cost-effectiveness (i.e., SIR) test?

# NON-ENERGY BENEFIT WORK GOING FORWARD

- Developed approach to address indoor air quality issues
- Developed baseline databases re occupant comfort, health, energy and medicinal security, etc.
- Developed baseline databases re low-income weatherization and GHG reductions, training and employment
- Developed new insights into low-income weatherization's role in social and service networks