



The DOE WEATHERIZATION PROGRAM: IT'S TIME TO BUILD ON SUCCESS

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Association for Energy Affordability, Inc.
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Friday, September 28, 2012
11:00 AM – 1:00 PM

Congressional Meeting Room North
Capital Visitors Center

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Association for Energy Affordability, Inc.



About AEA

The Association for Energy Affordability, Inc. is dedicated to achieving energy efficiency in new and existing buildings in order to foster and maintain affordable and healthy housing and communities, especially those of low-income.

AEA representatives engage in a broad range of educational, technical and program management activities and services to promote this mission and develop the industry that advances and sustains it.



AEA's ARRA Weatherization Services

- In addition to its extensive training and workforce activities in support of WAP, over the past 3 years under ARRA, AEA weatherized 75 multifamily buildings containing 4,969 units through two direct services contracts in New York (far exceeding its combined goal of 3,700 units).
- AEA's energy efficiency engineering staff also completed comprehensive energy audits of over 600 buildings with over 42,000 units for its partner subgrantees in New York.



National WAP: Who are we?

- Community Action and community based non-profit organizations in every state, serving low-income communities.
 - Rural and urban households living in single family, multi-unit and apartment buildings, owner and renter occupied
 - Targeting the most vulnerable in our society, seniors on fixed incomes, households with young children, special needs populations, those with high energy burdens
- Energy efficiency and building professionals directly addressing issues of energy insecurity and helping to achieve energy independence.



More on who we are...

- Some of us are veterans who have served our country not just for three years but for ten, twenty or more years in this program.
- We have been on an extended deployment in the basements, crawl spaces, attics of the homes, and in the boiler rooms of buildings where our low income families live.
- Our workers test for and find carbon monoxide conditions, gas leaks, vermin large and small, mold, mildew, electrical hazards and more.
- Now, if you don't know much about history, I'm sure I can find you an oblivious descendant of one of the workers whose family and self-respect survived only because of one of those jobs who will tell you that was the beginning of our foolish dependence on big government. But those workers built our national parks and our great libraries and many other long lived projects that we take for granted today.



Incubator for new technology

- WAP has led the way in the successful introduction of new technology, from blower doors to advanced heating controls.
- As a field based program where technically qualified problem solvers have developed innovations in response to real life conditions they encounter in the field, weatherization has spurred the development of new solutions to the problems of energy waste.
- The policy driver for the continued development of new technology has been the commitment to find new ways to further reduce energy costs/burden for low-income households, who are hurt most and have the least capacity to bear the costs of energy waste.



History of Bipartisan support

- The Weatherization program has been continued with bipartisan support, as members on both sides of the aisle knew that energy upgrades installed once by WAP help families be more fuel efficient and self-sufficient for years to come, reducing their need for assistance paying their basic utility bills.
- And the workforce and companies doing the work were small local businesses.



One Million Homes Weatherized since 2009!

- We have a lot to celebrate.
- More than 750,000 units of that total is directly attributable to the \$5 billion of funds received under the American Recovery and Reinvestment Act (ARRA)
- The remainder comes from the “base” funding to weatherization in this period.



Looking Back

- Where was America in the 1970s when the Weatherization program was created?
 - Oil crisis affected access to heating fuel as well as gas for automobiles.
 - Gas prices rose, fuel was rationed at the pumps.
 - President Carter put on his sweater and spoke to Americans of sacrifice. We turned down the heat, waited in line for hours to secure our rations of gas so we could get to work and get home to our families.
- Where were we in early 2009 as the stage was set for the ramp up of Stimulus funds that would make Weatherization a huge -- yet still largely untold -- success story for this country by 2012? Remember, in 2009
 - the housing finance industry was in crisis
 - construction jobs had been lost and overall unemployment had risen,
 - People's homes were in jeopardy, and the economy needed a shot in the arm
- We too, responded to our country's call.



The Call to Action under ARRA

- In 2009 the national weatherization network, including our strong network throughout New York City and New York State, responded to the call.
- In 2012 our production under ARRA is complete, but like the work of the Works Progress Administration and the Civilian Conservation Corps, its benefits will endure for many years.
- We trained, developed, hired and mentored workers who had lost their jobs during the Great Recession of 2008, or were long term unemployed.
- In New York (as noted below) with ARRA funds we weatherized more than 72,000 housing units, exceeding our goal by a large margin, while also achieving all 2009, 2010 and 2011 production goals – resulting in weatherization of over 100,000 units during the ARRA period.
- The greater funding level during this period also enabled us in New York to address much larger buildings than previously possible at typical annual funding levels.



Program expansion under ARRA

- WAP was challenged in 2009 to ramp-up
 - from a national program averaging \$220-\$240 million annually to \$5 billion over 2 and one-half year period,
 - while also completing production under the existing 2009, 2010 and 2011 programs.
- And to do so with new sets of rules, such as Davis-Bacon requirements.
- Why? Because, with its waiting lists, WAP had a pipeline of shovel-ready projects, to get work started immediately.



Diverse National Response

- Variations and innovations by states, counties, cities and regions included:
 - Building on existing infrastructure and expertise of committed veterans of weatherization
 - Building on the historic weatherization role of introducing new technology and leveraging additional resources
 - Recruiting, training and deploying unemployed workers, whether long-term or recently laid off
 - Equipping them with new skills needed in WAP

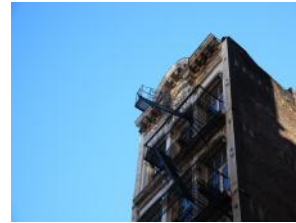


Extending WAP benefits by Leveraging or Implementing Utility Efficiency Programs

- In States such as Massachusetts, Ohio and New York, the WAP local and regional training, program management and field delivery infrastructure has effectively worked also with utility programs.
- The survival of the existing network of subgrantees and subcontractor delivering is at stake in appropriations decisions facing Congress.
- A viable national weatherization program provides a critical foundation for such utility programs.



Multifamily Apartment Buildings



Weatherizing Multifamily Buildings

- Multifamily housing nationally: The Opportunity
 - 17% of all housing units in US are in building structures with 5 or more units (over 22 million households out of over 129 million)
- Increase in number and share of units in multifamily structures completed under ARRA
 - Out of 750,000 units of WAP production nationally, more than 217,000 units (29% of total) in MFBs (threefold increase from 10% historically)
- DOE responses supporting weatherizing multifamily buildings
 - Suite of MF Resources, including Standard Work Specifications
 - Federal interagency coordination (including HUD and EPA)



Multifamily Housing in Selected US Cities

- 17% of all housing units in US are in building structures with 5 or more units (over 22 million households out of over 129 million)
- 12% (or 16 million) households in building with 10 or more units
- Looking only at the percentages for those with 10 or more units:
- In NYC as a whole, 54% live in such buildings, including
 - Over 90% in Manhattan and 69% in the Bronx,
 - but only 40% in Brooklyn and 34% in Queens;
 - And only 11% in Staten Island – and 26% in Westchester County
- Other cities with large percentages of households living in MFBs:
 - - Washington, DC -50% in 5+; 44% in 10+
 - - Atlanta 45% and 37%;
 - - Boston 44% and 31%
 - - Houston 42% and 34%
 - - Seattle 41% and 35%
 - - Chicago 38% and 27%



Number of Units in Residential Structures: Regional Variations (2009)

- Nationally 12.6% % multi-unit (2 to 9), 12.2% 10 plus
- Percent of households in buildings 10 units or more:
 - Mid-Atlantic = 18.6% (37.3% total MFU)
 - Pacific = 15.5% (29% MFU)
 - South Atlantic = 11.8%
 - New England = 11.5% (34.4% MFU)
 - West South Central = 10.8i%
 - Mountain = 10.5% (20.2% MFU)
 - West North Central = 10.0%
 - East North Central 9.8%



NEW YORK STATE WAP PRODUCTION

BLDG TYPE	PY 2010 MF ARRA		ARRA		TOTAL ARRA FUNDED	
	Bldgs	Units	Bldgs	Units	Bldgs	Units
STATE WIDE						
5+ UNITS	570	13,781	1,187	48,221	1,757	62,002
MF as % of Total	60	93	13	84	18	86
TOTAL	956	14,855	8,936	57,659	9,892	72,514
NEW YORK CITY REGION (SUBSET)						
5+ UNITS	302	8,292	327	29,076	629	37,368
MF as % of Total	0.50	0.91	0.42	0.98	0.45	0.96
TOTAL	605	9,091	778	29,801	1,383	38,892

COMMENTS: TOTAL ARRA PRODUCTION IS $57,659 + 14,855 = 72,514$

PLEASE NOTE THAT IN NYC, SPECIAL NEEDS HOUSING WAS PART OF THE MF PORTFOLIO TARGETING SO THERE WERE MORE 1-4 UNITS (GROUP HOMES) COMPLETED IN THAT REGION.

NEW YORK STATE WAP PRODUCTION

Multifamily Buildings	NYS Base Contract PY 2009		NYS Base Contract PY 2010		NYS Base Contract PY 2011	
	Bldgs	Units	Bldgs	Units	Bldgs	Units
STATE WIDE						
Multifamily (5+ UNITS)	244	8,198	195	5,822	248	6,920
MF as % of Total	4	56	4	54	6	59
TOTAL	6,128	14,667	4,502	10,737	4,350	11,715
NEW YORK CITY REGION (SUBSET)						
Multifamily (5+ UNITS)	167	6,732	131	4,571	135	4248
MF as % of Total	17	86	16	84	16	80
TOTAL	1,005	7,829	807	5,463	833	5,296



Total New York State WAP Production during ARRA

NEW YORK STATE WAP PRODUCTION		
Total WAP Production during ARRA	Totals	
	Bldgs	Units
STATE WIDE		
Multifamily (5+ UNITS)	2,444	82,942
MF as % of Total	10	76
TOTAL	24,872	109,633
NEW YORK CITY REGION (SUBSET)		
Multifamily (5+ UNITS)	1,062	52,919
MF as % of Total	26	92
TOTAL	4,028	57,480



Why do we weatherize multifamily properties?

- Many low income households in urban areas are hard hit by energy costs even though they don't own their own homes.
- In New York City, most low-income households live in rental apartments in multifamily buildings in older neighborhoods of the City's five boroughs. Many of these buildings are concentrated in areas of high poverty. These communities are where NYC Weatherization agencies are located.
- Buildings with low income households in proportions that meet the eligibility requirements for Weatherization often have older, inefficient heating systems near the end of their useful lives. They may burn oil or gas. Many lack mechanical ventilation systems.



What's different about apartment buildings?

- In New York City, usually the cost of heat and hot water is built into the tenant's rent in apartment buildings.
- The building owner pays the bill for these central systems, but **everyone who lives in the building** is absorbing its high energy costs in their rents.
- When buildings are under-heated, tenants may use space heaters or even their stoves to keep warm. In addition to safety risks, they bear the costs of these stop gap solutions on their own utility bills.

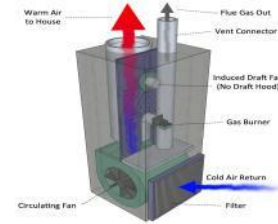


Keeping rents affordable

- Operating and maintain a building with low rent rolls in the City is challenging. But from the outset we have structured the WAP program in NYC to do work only in buildings where owners are meeting their responsibilities to maintain their properties and willing to invest in them.
- We have long required owner investment to share in the cost of WAP energy upgrades.
- Weatherization agreements specifically prohibit owners from applying for rent increases based on the capital improvements made as part of Weatherization.



It's not just weatherstripping.



Specifying the Work

- Energy audits identify opportunities for savings and model current and projected energy usage after completing a specific proposed scope of work (SOW)
- Proposed measures in SOW assume sufficient data on installation requirements and projected savings
- Users of the audit report and SOW may or may not have experience in developing the more detailed specifications to provide to installers to guide their work -- BUT THIS IS A KEY TO SUCCESS



DOE Stewardship

- On the national level, DOE has provided extraordinary leadership in ensuring that ARRA dollars were well spent making self-conscious investments of its training fund to develop workforce guidelines, training tools and standards development to develop and strengthen the industry and make the job growth achievements of WAP agencies under ARRA sustainable past the end of the ARRA funding period.
 - Funding the growth and expanded capacity of 40 Weatherization Training Centers
 - Developing Standard Work Specifications to provide a more uniform basis for the performance of weatherization work
 - Job Task Analysis that gives weatherization staff greater job opportunities wherever they go with recognized skill sets and certifications



Sustainability and Leveraging Resources

- Locally, WAP provides the core infrastructure to which other resources can be added cost-effectively to increase local capacity to deliver energy efficiency and leverage other resources to get the most “bang” for the public buck.
- WAP agencies are local centers of building science knowledge, energy auditing and analytic expertise, and construction management experience, combined with the organizational structure, tools and facilities to harness these resources effectively.



AEA Efforts to Support Multifamily WAP

- A DOE funded Weatherization Training Center
 - Developed a Distance Learning Network of Weatherization Training Centers using AEA's real-time Connected Classroom platform.
- Publication of a “Multifamily Weatherization Resource Guide” (2012)
- Working with DOE, NREL and Advanced Energy on Standard Work Specifications for Multifamily
- AEA is the organizer of the Multifamily Buildings Conference series on energy efficiency in multifamily buildings.



Questions? Follow-up? To contact me:

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