

NCSHA 2015 Annual Awards Entry Form

(Complete one form for each entry)

Deadline: Wednesday, June 10, 2015

Visit ncsha.org/awards to view the Annual Awards Call for Entries.

Instructions: Type entry information into the form and save it as a PDF. Do not write on or scan the form. If you have any questions contact Matt Cunningham at mcunningham@ncsha.org or 202-624-5424.

Fill out the entry name *exactly* as you want it listed in the program.

Entry Name:

HFA:

Submission Contact: (Must be HFA Staff Member) _____

Email: _____

Please provide a 15-word (maximum) description of your nomination to appear on the NCSHA website.

Use this header on the upper right corner of each page:

HFA:

Entry Name:

Select the appropriate subcategory of your entry and indicate if you are providing visual aids.

Communications	Homeownership	Legislative Advocacy	Management Innovation
Annual Report	Empowering New Buyers	Federal Advocacy	Financial
Creative Media	Encouraging New Production	State Advocacy	Human Resources
Promotional Materials and Newsletters	Home Improvement and Rehabilitation		Operations
			Technology
Rental Housing	Special Needs Housing	Special Achievement	Are you providing visual aids?
Encouraging New Production	Combating Homelessness	Special Achievement	Yes
Multifamily Management	Housing for Persons with Special Needs		No
Preservation and Rehabilitation			

Deck of Cards
NSCHA 2015 Annual Awards Entry
Special Achievement

The Challenge

States participating in the U.S. Department of Energy's (DOE) Weatherization Assistance Program have traditionally used field guides to ensure that they met DOE criteria when installing and inspecting weatherization and energy-efficiency measures. Developed by contractors for each individual state, there was not a national standard for the guides. In 2013, DOE introduced national Standard Work Specifications (SWS), which regulated the way each weatherization measure was to be put into a home. States were required to have the SWS in place by July 1, 2015. DOE also recommended that states translate – or “crosswalk”—the SWS into existing field guide standards. However, there were significant challenges to the crosswalk approach. MFA and the NM EnergySmart Academy – New Mexico's weatherization training center – immediately recognized that, because state field guide standards were complex and did not match one-to-one with each SWS requirement, they would need to be deconstructed, updated and reconfigured. Given the scope of that task and the fact that many field guides had proven to be flawed and incomplete, MFA questioned if existing guides should continue be used at all, much less serve as a basis to implement a new national standard such as the SWS.

An Innovative Solution

MFA and the NM EnergySmart Academy proposed an innovative solution to translate DOE's work specifications into a standardized, easy-to-use, precise field guide. The solution—a “Deck of Cards” for New Mexico— illustrates the methods and standards for installing 50 of the state's most common weatherization measures. Each of the 50 cards in the “deck” have photo illustrations of each step as well as before and after pictures to guide the weatherization work crews. The visual aid submitted for this entry includes several example cards depicting measures for respiratory protection, lead paint assessment, replacement window installation and occupant education about carbon monoxide poisoning. This approach has produced outstanding results for the following reasons:

- Adopting each SWS specification as a standard in itself avoids the complexity of translating the SWS into existing field guides and prevents potential misinterpretations of the SWS going forward.
- Photo-illustration is an enormous improvement over text-only field guides because it is better suited to work crews and inspectors, some of whom are non-English speakers and/or read at different levels of comprehension. The photos also reduce differing interpretations among work crews and inspectors.
- The Deck of Cards format allows work crews to customize a field guide for each job, based on the set of specifications for that job. This eliminates the need to carry around a lengthy, heavy field guide that is rarely referenced because it is difficult to locate the relevant standards for a job.

When MFA weatherization staff requested initial feedback from state representatives who served on the Energy Out West board of directors, it became clear that many other states were interested in and would benefit from the Deck of Cards approach. In response, MFA and the NM EnergySmart Academy proposed a way for other states to develop their own Deck of Cards based on their unique needs. States were offered full access and use of all existing cards plus the development of 20 new cards for \$4,999. To date, 26 states have signed a Memorandum of Understanding to join the partnership, and more than 550 cards have been developed. Three hundred cards for single family specifications have been approved by DOE and a Deck of Cards for manufactured housing is being developed from additional

specifications. In a few cases where New Mexico did not have the expertise to develop cards for specifications common in the southern and eastern U.S., we partnered with weatherization training centers in Georgia and Virginia. Approximately 150 cards were produced in this manner.

MFA and the NM EnergySmart Academy collaborated with the National Renewable Energy Laboratory (NREL), which developed a web-based portal through which states can access the Deck of Cards. Each participating state has an account that contains a master copy of the Deck of Cards that can be customized using Adobe Acrobat .pdf. States can select cards/specifications relevant to them and can add amendments, logos and other information to create their own individual guides. Each state can also download, print or access via tablet individual cards or the state's complete master field guide. This enables work crews and inspectors to customize the format or formats that are most-user friendly or appropriate for a job. For example, most states have a master field guide, but also a shorter version containing the 20-30 specifications that they most commonly use. Some work crews access the cards exclusively by tablet when they are out in the field. Ultimately, the master Deck of Cards will become an open-source tool.

Benefits that Outweigh Costs

Cost-effectiveness is one of the primary reasons that New Mexico proposed and piloted the Deck of Cards. Development of the initial Deck of Cards (50 specifications) and the infrastructure necessary for multi-state collaboration cost \$25,000, which was paid for by MFA's NM EnergySmart program. The cost to develop a single card was estimated to be \$250, or \$5,000 for 20 cards. In contrast, a contractor used by several states charged \$10,000 to update a field guide for SWS as well as additional costs for copies of the guide and future changes or updates. By contrast, the web-based portal at NREL automatically incorporates all changes made by DOE to the SWS. States using the Deck of Cards pay nothing for updates; they only incur the time it takes to create a new .pdf or print a new card.

Results

The Deck of Cards allowed New Mexico and 25 other states to meet DOE's requirement of operationalizing its Standard Work Specifications (SWS) for weatherization specifications. New Mexico met the requirement one year early, by July 1, 2014, in order to pilot the Deck of Cards and lead this initiative. Yet beyond achieving intended results, the Deck of Cards provides an extremely cost-effective, innovative approach that DOE refers to as the "gold standard" of SWS. Here's why:

The Deck of Cards makes standards relevant—now they are used regularly as a tool for states, their work crews and inspectors.

- **The content is more user-friendly** than traditional field guides. It reduces a voluminous amount of text to simple standards, provides before-and-after photo-illustrations as well as photos of the steps in the process. This presentation is much better suited to work crews and inspectors alike, and minimizes issues over interpretation of standards.
- **The format is equally user-friendly**, allowing states, their work crews and inspectors to access and use standards in a variety of formats (printed, on-line, as single specifications or part of a guide) and to customize standards for a particular job even in the field.

MFA and the NM EnergySmart Academy have provided leadership at the national level to establish multi-state infrastructure for SWS including:

- Standard Memorandum of Understanding, including cost and benefits for collaborating states
- Built-in leveraging—each state’s payment is used toward development of 20 more cards
- Partnership with NREL in design and operation of the web-based portal

The Deck of Cards is cost-effective. States pay less than 50 percent of the cost of updating field guides, with greater benefits:

- Access to all cards used by all states
- Ability to customize master field guides through the NREL portal
- DOE changes to SWS automatically incorporated

An Important State Need

Weatherization is a great need in New Mexico where poverty and low incomes make it difficult for homeowners to weatherize and improve their homes. As of 2013, NM had the second highest poverty rate in the nation (22 percent), much higher than the US rate of 16 percent and behind only Mississippi (24 percent). NM’s median household income was also among the lowest in the nation at \$43,872, which is well below the US median of \$52,250. While traditional family inheritance contributes to the state’s high homeownership rate and a high percentage of homeowners without mortgages, many homeowners are nevertheless low-income. Additionally, consider the state’s aging housing stock (48 percent of homes built before 1980 and only 18 percent built after 2000) and the fact that homes are older in rural areas of the state, and the need for weatherization assistance becomes clear.

MFA receives enough funding to weatherize approximately 1,000 homes per year at a very reasonable average of \$5,000 per home, but waitlists in all counties greatly exceed capacity. We primarily serve seniors on fixed incomes, low-income residents living in older manufactured homes, and low-income families. Typically, these households will save an average of \$360 per year on their utility bills when weatherization work is complete. The utility bills of many low-income households are unusually high because these homes tend to be older and poorly insulated and lack energy-efficient upgrades.

MFA is a recognized national leader in weatherization. Our state enabling legislation, the NM Mortgage Finance Authority Act, gives MFA the authority to administer all state and federal weatherization funds and we do so in partnership with our service providers and partners like the NM EnergySmart Academy. Since 1997, MFA has received WAP, LIHEAP (Low Income Home Energy Assistance Program) and other funds for its NM EnergySmart program. As part of the American Recovery and Reinvestment Act (ARRA), MFA received \$27 million in additional WAP funding, with which it weatherized 4,000 homes. In 2010, MFA also received \$900,000 in ARRA funding to develop a weatherization training center—the NM EnergySmart Academy at Santa Fe Community College. Of the 29 states to receive the competitive training center grant, NM was the first to receive IREC accreditation for four weatherization certificates in DOE-approved work classifications (Energy Auditor, Crew Chief, Retrofit Technician and Quality Control Inspector). The NM EnergySmart Academy has become self-sufficient by expanding its training offerings. In addition to training NM EnergySmart service providers, the Academy draws students from nearby states and trains the state’s incumbent workforce as a Center of Excellence for the NM Department of Workforce Solutions.