# **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.

<u>Instructions:</u> 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 <u>mcunningham@ncsha.org</u> or 202-624-5424.

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

Entry Na	ame:
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HFA:			
Submission Contact:	(Must be HFA Staff Member)	Em	ail:

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 State Advocacy Production		Human Resources
Promotional Materials and Newsletters	Home Improvement and		Operations
	Rehabilitation		Technology
Rental Housing	Special Needs Housing	Special Achievement	Are you providing visual aids?
Encouraging New Production	Combating Homelessness	Special Achievement	Yes
	Housing for Persons with		No
Multifamily Management	Special Needs		110

#### **Rental Housing: Encouraging New Production**

## PHFA Innovation in Design Award Pushes the "Envelope" to Encourage Passive House in LIHTC Developments

#### **Scope**

"Pushing the envelope" is a common idiom used when a circumstance or occurrence exceeds the limit of what is normally done or is expected – an innovation. The phrase has its history in aviation with the "envelope" being the technical limits of a plane's performance under speed and stress. In 2013, the Pennsylvania Housing Finance Agency ("PHFA" or "Agency") added a new preference in its Qualified Allocation Plan ("QAP) for the Low Income Housing Tax Credit Program ("Tax Credit"), the Innovation in Design Award. Tax Credits are awarded to the winner of this award through a juried competition, independent of scoring, that evaluates excellence in design, implementation of current and future energy efficiency technology and materials and the leveraging of resources. As a condition of the receipt of the Innovation in Design Award, the project recipient must involve PHFA staff in project design, financial evaluation and management issues as if PHFA is a "development team member." PHFA's goal in establishing this award was to determine if the successful development could demonstrate replicable programs or systems promoting long term affordable housing options in the Commonwealth. The first winner of this award was the Uptown Lofts on Fifth, located in Pittsburgh, consisting of 47 units in two buildings. One building was being designed to Passive House standards and the other building was built to normal PHFA standards (Energy Star<sup>®</sup> 3.0). By following the project through the development and construction process, PHFA determined that Passive House construction may provide long term benefits to the financial operations of an affordable housing property by significantly lowering utility consumption and costs as well as creating a stable environment for the tenants.

Based on PHFA's long standing history of increasing energy efficiency goals in it QAP, as described below, and as a direct result of seeing the initial results of the energy savings, consumption and modeling data from the Uptown Lofts on Fifth, PHFA decided to push the envelope, the "building envelope," by encouraging developments seeking Tax Credits to follow Passive House standards in the new construction or substantial rehabilitation of multifamily affordable rental housing.

#### **Energy Efficiency Goals in the QAP – Pre-2015**

Since 2001, PHFA has included a number of energy efficiency goals and standards in its annual QAP. The first QAPs encouraged energy efficiency in Tax Credit properties and incorporated specific energy performance standards in the selection criteria. Developments that demonstrated the ability to exceed energy code requirements for insulation by ten percent were awarded points. After a few years, we learned that this standard could be achieved by most applicants so we added additional energy efficiency requirements including the use of Energy Star<sup>®</sup> rated appliances, achieving a Home Energy Rating System ("HERS") score necessary for an Energy Star<sup>®</sup> label and incorporating specific green building criteria in the development proposal. Again, we saw that most developments received maximum points in the energy efficiency/green building selection criteria.

For the 2008 QAP, PHFA made a substantial change in the eligibility criteria and a number of selection criteria previously used for program scoring were adopted as threshold criteria. Beginning in 2008, all developments seeking an award of Tax Credits had to use Energy Star<sup>®</sup> labeled equipment and appliance throughout (with different standards for new construction, rehabilitation and preservation projects) and all developments had to achieve a specific HERS ratings for the type of building. Over the next several years, we encouraged green building, sustainable systems (geothermal, wind, and solar voltaic) and insulation standards as selection criteria. From time to time, we made a few adjustments to specific standards of these categories.

#### The 2015 QAP – Passive House

Again, based on what we learned as a participant on the "development team" of the Uptown Lofts on Fifth project with respect to design, materials, costs and overall development and as well as analyzing a number Passive House designed buildings, including the substantial rehabilitation of a YMCA in McKeesport, Pennsylvania, in 2015, PHFA "pushed the envelope" in the QAP to incorporate Passive House as a selection criteria. The QAP provides that up to 10 points (out of 140) may be awarded to those developments that meet Passive House Certification through Passive House Institute US (PHIUS) or the Passive House Academy. Applicants seeking points for this category must engage a Certified Passive House Consultant or Passive House Designer who will complete the requisite Passive House documentation which includes modeling based on schematic drawing and specifications assumptions and cost estimates. PHFA will monitor those projects awarded Tax Credits that provided specific application submission documentation. PHFA staff which includes architects, engineers and utility analysts have the requisite knowledge to evaluate the proposals and ensure the final Passive House certification is achievable.

What is Passive House? Passive House is a German devised method of building design that promotes super insulation and air tightness of the building envelope to reduce overall energy consumption. Although a number of structures, including multifamily buildings, have been constructed in Europe, the movement is just beginning to take hold in the United States. There are two institutions, PHIUS and the Passive House Academy, that certify that the following Passive House standards are met:

- Maximum Air Infiltration: 0.6 Air Changes per Hour at 50 pascals
- Maximum BTU Consumption (Heating & Cooling): 4,755 BTU/Sq. Ft./Yr
- Maximum Total Energy Use: 38,039 BTU/Sq. Ft./Yr

To achieve these goals, Passive House design looks at the building envelope, solar orientation, ventilation and efficiency to determine what ventilation systems, windows and doors and insulation could be used. Based on these standards, Passive House should be achievable for most new construction developments, may be achievable for rehabilitation developments and generally not achievable for preservation developments. Although the cost of construction may be slightly more expensive than conventional construction, estimates are five to 10 percent, lowering energy usage and costs over the life the property will provide the big payoff. It should be noted that both the total construction costs for the Uptown Lofts at Fifth and the McKeesport YMCA did not exceed the initial budgets which had been based on conventional construction

pricing. Currently, energy consumption projections for multifamily developments designed using Passive House standards show usage approximately 70% less than conventional projects.

#### The 2015 Applicants and Tax Credit Awards

PHFA received 103 applications for Tax Credits in February 2015. Of these, 85 were for the new construction or substantial rehabilitation applications (which includes adaptive re-use of existing buildings) and 18 were existing housing (preservation projects). Although the Agency heard a number of concerns from applicants, prior to the application date, regarding the costs to construct using Passive House and despite the fact that the 2015 QAP encourages costs savings through the selection criteria, 32 of the 85 developments incorporated Passive House in their development proposal. PHFA staff evaluated the applications pursuant to the criteria set forth in the QAP and determined the financial feasibility of the proposal including the Passive House certification and construction cost analysis. Based upon the applications, it does not appear that there was a significant increase in the construction costs of proposed Passive House projects. In fact, a number of them received scoring points under costs savings by being at least 10% less than the median cost for similar construction types (single family, mid-rise, adaptive re-use).

On May 14, 2015, PHFA awarded Tax Credits to 39 developments. Of these, 30 were the new construction or substantial rehabilitation proposals (eight were adaptive re-use of existing buildings) and nine were preservation projects. Of the 30, eight met the Passive House scoring criteria (27%). The budgeted construction costs for these developments are comparable to non-Passive House developments.

#### Why Nominate the Innovation in Design Award for Recognition?

In 2013, when the Agency established the *Innovation in Design Award*, the goals was to bring new technologies, expand partnerships and bring new ideas to affordable housing that could be replicated. To date, the six projects have received Tax Credits through this competition with each of them creating new opportunities and initiatives. In addition to Uptown Lofts on Fifth, successful recipients have demonstrated community collaboration to address senior housing and access to services, mixed-income artist housing in a gentrifying neighborhood and supportive housing for persons with autism. In each of these awards, PHFA is working with the project sponsor to further evaluate our Tax Credit program requirements and is looking at ways to improve the quality and ensure the long term affordability of the housing for residents of the Commonwealth of Pennsylvania. The *Innovation in Design Award* was clearly a catalyst in the Agency's pushing the envelope in the Passive House arena. While we initially received push back from the development community related to new building and technology systems using Passive House design, similar to what we experienced when implementing aforementioned energy efficiency goals, such as Energy Star<sup>®</sup>, we strongly believe that Tax Credit properties in Pennsylvania will significantly consume less energy, operate more efficiently and remain more stable over the life of the property which will enhance the sustainability of affordable housing in the Commonwealth.