UTILITY STRATEGIES FOR IMPLEMENTING ENERGY STAR® IN AFFORDABLE HOUSING

Affordable housing has been developed in one form or another by federal and state governments since the 1930s. Comprised of numerous programs and not having benefited from consistent energy policy, this building segment is large and largely untapped for energy efficiency. Often considered homogenous as an industry, the affordable housing market is actually a conglomerate of very different programs operated by various federal and state agencies and government sponsored enterprises. Each program has its own rules, including income limits, affordable set asides (i.e., number of units at each income level), holding criteria (i.e., how long properties must remain affordable), and development requirements. Affordable housing is promoted using a wide variety of funding and incentive instruments including competitive and formula grants, interest subsidies, rental assistance, and mortgage guarantees. Properties are available in all states and climate zones, rural and urban locations, and all building types, which range from single family detached to high rise elevator structures and mixed use developments.

To effectively work within the affordable housing market, energy offices, local utilities, and public utilities commissions need to develop strategies specific to market segments and their respective decision makers. Effective solutions will need to be selective for segment customers, rules, operational needs and financing, and appropriate technologies. ENERGY STAR® offers proven, turn-key solutions to improve the energy efficiency of all sectors of the affordable housing market. These include product-specific solutions such as ENERGY STAR qualified appliances, lighting, windows, and HVAC equipment, as well as systems-based, whole-house solutions such as ENERGY STAR Qualified Homes for new construction and Home Performance with ENERGY STAR for retrofits. These solutions can be deployed effectively into affordable housing to reduce energy use. New strategies are also possible that can be tailored to each market segment.

KEY FUNDING PROGRAMS

Affordable housing programs are developed and managed through federal, state and local governments. They are implemented through industry participants and stakeholders. The key agencies that administer affordable housing programs include:

- U.S. Department of Housing & Urban Development (HUD)
- U.S. Department of Agriculture (USDA)
- Federal Housing Finance Board (FHFB)
- State Housing Finance Agencies (HFA)
- State & local governments

HUD offers the largest array of programs and invests the most dollars in affordable housing. After establishing rules and policy, HUD channels most of its programs downward to be administered locally. Public housing[1], for example, is administered by local housing authorities

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[1] Public housing receives $6.6 billion in federal subsidies that support annual operations for 1.3 million existing housing units

who operate the nation's low income housing portfolio. The HOME program[2] is funded by formula grant and is administered by state and municipal governments, who establish local requirements and interface with developers. In a few programs, HUD also acts as the grant administrator. These include HOPE VI, Section 202/811 (Elderly and Disabled Housing), and a number of smaller initiatives funded through Notices of Funding Availability (NOFA). In these NOFA programs, HUD sets the funding rules, tallies the scoring, and executes grant agreements with awardees.

Public Housing Program

The Public Housing program is comprised of nearly 1.3 million units of existing housing. Its funding comes through formula grants to subsidize operations, maintenance, and modernization. Managed by 3,200 local housing authorities and targeting very low income tenants, public housing properties are located in every state. Housing authority jurisdictions include small to large municipalities and sometimes vast rural areas. The Riverside County Housing Authority, for example, provides public housing and rental vouchers the county of Riverside, which spans east-to-west across southern California.

Housing Choice Voucher (HCV) Program

The Housing Choice Voucher (HCV) program is HUD's flagship rental assistance program, offering nearly 2 million housing vouchers through formula funding. The HCV program is administered by public housing authorities, who facilitate rental assistance payments between HUD and landlords. The program enables eligible tenants to carry a payment voucher to any property and request rental housing, where rental units can be private apartments or formerly developed under affordable housing programs (e.g., USDA, Tax Credit). The HCV portfolio is fluid and changes annually as landlords enter and leave the program. HUD determines fair market rents (FMRs) through annual random digit dialing surveys. The FMRs are used by housing authorities to establish local payment standards for contract rents.

> The California Public Utilities Commission has funded, through Southern California Edison, a new program in 2006 that supports public housing, assisted multifamily housing, and various affordable housing owners. The Housing Efficiency Partnerships program provides engineering and financial technical assistance to housing authorities, non-profit housing owners & developers, and Housing Choice Voucher (HVC) landlords to develop rehabilitation efficiency projects, including ENERGY STAR qualified lighting, appliances, laundry, and HVAC equipment. Small owners are aggregated to gain scale economies and make their projects more attractive to third parties for services and financing. The program coordinates with HUD's local Offices of Housing and Public Housing and with the Southern California Low Income Program to coordinate available resources, rebates, and incentives for affordable housing owners.

Programs for Elderly and Disabled Housing

The Section 202/811 Elderly and Disabled Housing programs provide development grants to developers funded through a competitive proposal process. These properties, located throughout the country, often receive rental subsidies and target the special needs of the elderly and

[2] The HOME program provides $1.8 billion in federal funding and supports rehabilitation and new construction of 55 to 85,000 units of housing annually

disabled. They are often coupled with special services and may include assisted living facilities, which are efficiency apartments with common areas for meeting, meals, and health services.

HOME Program

HUD's HOME Program is administered through a formula grant to states and municipalities, who set local program requirements and submit an annual Consolidated Plan to HUD which outlines its program goals and activities. HOME funds are flexible and may be used for new & rehab construction, rental assistance, administration costs, and other uses. State and municipal grantees, in turn, make the funds available to developers.

USDA Programs

The U.S. Department of Agriculture offers a bevy of programs[3] that target funds to rural communities. These programs offer affordable rental development, rehabilitation, and home purchase options help to build farm worker housing. USDA offers a full line of incentives including loan guarantees and in some programs USDA acts as the lender of last resort.

Affordable Housing Program

The Federal Housing Finance Board establishes rules for the Affordable Housing Program. The Affordable Housing Program provides targeted grants and interest rate subsidies to developers through twelve district Federal Home Loan Banks. These district banks establish goals, application requirements, and score the applications. Member banks working with local banks submit the proposals on behalf of local developers, also called project sponsors.

Low Income Housing Tax Credit (LIHTC) and Tax-Exempt Bond Programs

State Housing Finance Agencies (HFAs) receive federal budget authority for the Low Income Housing Tax Credit (LIHTC) program and tax-exempt bonds. With municipal governments, they administer large allocations of HOME program, Community Development Block Grant (CDBG) funds. State HFAs establish competitive requirements that target the available funds to address geographically-specific housing and economic development needs. Some states have also established housing trust funds to further promote affordable housing by providing bridge or construction financing until permanent financing can be established.

In 2005 the Philadelphia Housing Authority (PHA) responded to spiraling energy costs by participating in an ENERGY STAR demonstration project to assess how building low-income homes to ENERGY STAR standards affects design, product specification, construction and operations procedures. PHA's ultimate goal is for all new low-income housing to be built to ENERGY STAR standards. PHA worked closely with its primary funding agency, the U.S. Department of Housing and Urban Development (HUD), on innovative ways to incorporate mandated energy efficiencies and reduced energy consumption, while adhering to current allowances for total development costs.

Recognizing that occupant behavior is key to energy consumption, PHA has also developed a client education plan focused on energy reduction. PHA has partnered with, among others, PECO Energy and the Pennsylvania Public Utility Commission (PUC) to achieve this goal. Seminars were conducted by PECO at two PHA sites; PECO also trained PHA staff in energy conservation and procedures for accessing PECO programs.

[3] USDA's key rental housing program is Section 515, which provides interest subsidies for 800 housing projects annually

KEY STAKEHOLDERS

Parties interested in addressing the affordable housing sector must start with its customers and stakeholders. These stakeholders include:

- Federal, state, and local government agencies
- Developers, non-profit and for-profit
- Owners, non-profit and for-profit
- Professional services firms (e.g., A/E firms)
- Other stakeholders such as financial institutions, certain non-profit community advocacy groups, and first time home buyers and renters

The first tier of customers to consider when deploying ENERGY STAR is policy makers. These are the people interpreting federal or state law, applying their current administration policy goals, and establishing rating criteria and reporting requirements. Due to the intense competition and complexity of rules, policies, and reporting and the negative consequences of non-compliance, policy makers have a tremendous influence on affordable housing activities. Adding language to competitive scoring criteria that rewards projects that include energy efficiency, for example, even if mostly symbolic will lead many developers and owners to comply, since the risk of non-compliance is costly – it means failure to acquire necessary funds to move projects forward.

Further downstream are the grantees. In competitive and formula grant programs, the grantee is the entity receiving funds and does the actual work to develop or modernize housing properties. These are developers, owners, and managers of housing. Public housing authorities, for example, receive formula grant outlays and use these funds for operations and modernization activities; they also are the lead for HOPE VI revitalization grants. Community development corporations (CDCs) and for-profit developers apply for development grants through state and local governments and direct federal grant programs such as the Section 202 Elderly Housing program.

The complexity of the housing solutions and the relatively small size of most community development corporations

> The Rahway Housing Authority (NJ) has received Weatherization program funds for purchasing and installing ENERGY STAR qualified windows, boilers, lighting, and refrigerators. It has also installed more efficient showerheads and higher levels of insulation in most of its developments. The Glen Cove Housing Authority (NY) received boilers, windows, and building insulation.
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> The leverage of Weatherization services and capability into public and assisted housing varies. Although these housing segments service very low income families, in other states local Weatherization administrators sometimes view these programs as already receiving subsidies or as owner-managed. In other states, low income programs work only with the tenants, so may only service a few units in a larger development and may miss the advantage of working with building owners.
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> Southern California Edison's Low Income Program has begun to leverage the new PUC Housing Efficiency Partnerships program to work with owners and landlords directly. By developing programs structured to leverage owner access, state and utility programs can reduce points of contact and to improve efficiency scale into thousands of apartments.

and affordable housing owners make outsourcing of professional services critical for both building capability and capacity for developing projects. As a result, nearly all affordable housing projects use professional services providers—licensed architects, engineers, and specialist consultants. HOPE VI projects, for example, which seek to de-concentrate poverty, develop family self-sufficiency, provide homeownership opportunities, and integrate housing into larger community revitalization plans, require extensive support. These projects often use national architects for master planning, local architects and engineers for detail design, and consultants to facilitate complicated program requirements.

Working at the top levels, energy offices and others can tailor efficiency into policy requirements and program design. An example of this is working with state housing finance agencies to change their efficiency requirements in tax credit qualified allocation plans (QAPs). Working with subsequent customer tiers, energy stakeholders can work directly with developers and the design community, which is more similar to working with traditional home builders.

STAKEHOLDER STRATEGIES

State Housing Finance Agencies and Federal Home Loan Banks

State Housing Finance Agencies and Federal Home Loan Banks administer Low Income Housing Tax Credit allocations, Tax Exempt Bond programs, HOME program funds, and Affordable Housing Program grants through competitive grants and financing programs. Energy offices, utilities, and public utility commissions can develop programs that:

- Assist state and local governments to evaluate the cost-effectiveness of requiring or incentivizing ENERGY STAR into their grant programs
- Design efficiency rebates and low cost energy financing with targeted technical assistance that provides a bridge between efficiency decisions and housing operations

The NJ Department of Community Affairs (DCA), in collaboration with Public Service Electric and Gas Company (PSE&G), initiated a pilot program that provided rebates and design assistance to builders to participate in PSE&G's 5-Star program, a precursor to ENERGY STAR and green affordable housing in New Jersey. The success of this pilot led to regulatory changes requiring all state financed affordable housing units be certified under NJ ENERGY STAR guidelines. The New Jersey Housing and Mortgage Finance Agency also required the same standard for federal low income housing tax credit projects via changes to their Qualified Allocation Plan. In 2006, the DCA applied for two new pilots with the NJ Public Utilities Commission to extend Home Performance with ENERGY STAR into existing affordable housing and to develop an energy efficiency loan for multifamily properties.

By creating higher quality housing stock while reducing operating costs, ENERGY STAR has helped to change the public perception of affordable housing. It has also provided cohesive efficiency standards among state agencies including DCA, the NJ Housing & Mortgage Finance Agency and the Board of Public Utilities, and clear expectations among project design teams. Over 9,000 units have been ENERGY STAR qualified since the adoption of ENERGY STAR guidelines for affordable housing in NJ.

- Build technical knowledge of energy efficiency measures and capacity for implementing them with the developers, professional services firms, and local agencies that manage these housing portfolios

U.S. Department of Housing and Urban Development and U.S. Department of Agriculture

HUD administers a number of programs that provide competitive grants and block grants, rental and operating subsidies, mortgage insurance and guarantees, as well as low cost financing through state and community stakeholders distributed directly to developers. These programs support affordable housing development and operation at all phases of a project's life cycle. USDA administers a mix of housing options targeted to rural communities, including rental housing and farm worker housing.

Energy offices, utilities, and public utility commissions can develop programs that:

- Assist state and local governments that receive formula allocations of federal funds to evaluate cost-effectiveness of requiring or incentivizing ENERGY STAR into their grant local program designs
- Coordinate with the regional and local federal offices and local governments to collaborate on pilot and full scale ENERGY STAR program development
- Integrate rebates and low cost energy financing with targeted technical assistance to provide both incentives and delivery mechanisms for energy efficiency
- Develop approaches that improve access for small affordable housing owners and housing agencies to comprehensive energy services
- Develop efficiency strategies for new and existing mid- and high-rise buildings and multifamily properties
- Build capacity within the owners, grantees, professional firms, and government agencies that manage and administer these housing portfolios through training, workshops, and certifications

> Utah's Olene Walker Housing Loan Fund (OWHLF) provides gap financing for low-income housing projects, serving both owner-occupied and rental housing projects for new construction and rehabilitation. OWHLF's board approved a pilot in 2005 to require ENERGY STAR Qualified Home certification for all projects receiving loan funds and established a pilot grant of $60,000 to assist developers with making ENERGY STAR upgrades. ENERGY STAR is now a prescriptive requirement for the OWHLF program, and projects that cannot achieve ENERGY STAR certification are required to request a waiver.
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> In order to assist with added expenses to implement ENERGY STAR requirements, the OWHLF board examines each project and may elect to adjust the terms of financing. OWHLF loan interest rates range from 0 to 3% depending on the income of residents served by the project. In one typical 22 unit, $3 million project seeking $400,000 in gap financing that required $51,000 in efficiency upgrades, the OWHLF elected to reduce the cost of capital from 2.5% to 1.5%, making the ENERGY STAR implementation cost-neutral to the developer.
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> OWHLF is partnering with the local utility, Rocky Mountain Power, to provide incentives to participating developers. As of October 2006, the OWHLF funded 43 single family homes and 450 multifamily housing units under its ENERGY STAR program.

ADDITIONAL INFORMATION

U.S. Environmental Protection Agency, ENERGY STAR: www.energystar.gov/homes
U.S. Department of Housing & Urban Development: http://www.hud.gov/funds/index.cfm
U.S. Department of Agriculture: http://www.rurdev.usda.gov/rhs/
Federal Housing Finance Board: http://www.fhfb.gov/
State Housing Finance Agencies: http://www.ncsha.org/section.cfm/4/39/187