



Agencies Explore Clean Energy Barriers in Low-Income Communities

As the state continues to push toward 50 percent renewable energy and a doubling of energy-efficiency savings by 2030, regulators increasingly view low-income, multifamily housing as both a huge opportunity and a thorny challenge.

A third of households in California are officially classified as low-income and 47 percent of these are located in multifamily buildings, making this demographic an important target for the state's energy programs. But at the same time, multifamily accommodations present utilities and regulators with unique challenges. They often have complicated ownership structures, restricted budgets and face the issue of split incentives: owners and developers are responsible for building energy-efficient systems but don't enjoy the benefit of reductions in utility bills, which are generally paid by residents.

For low-income housing developers, the challenge of upgrading existing buildings with energy-efficient systems generally boils down to one problem: the cost.

"I have to say, only a handful of us are starting to take major strides in making buildings energy efficient. Most organizations are deterred because of several barriers, and the overarching barrier is a lack of funding," said Vanessa Guerra, project manager with developer Mutual Housing California.

The state needs to address these issues in order to meet the energy-efficiency provisions of SB 350, which include a doubling of savings from energy efficiency by 2030.

The California Energy Commission's Low-Income Barriers Study, Part A, highlights many of these challenges. While the major one continues to be split incentives, there's also a lack of information regarding building energy usage as well as the benefits of installing retrofits; a "hassle factor" surrounding identifying where to install systems; and fragmented programs and services that make it more difficult for building owners to adopt energy-efficient systems.

Upgrades for existing buildings include a ranges of measures, including installing cool roofs and upgrading attics with insulation and radiant

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California Low-Income Energy Programs

Agency	Program Name	Purpose	Eligibility Definition & Upper Threshold Example for Los Angeles Family of Four	Funding
CSD	Low-Income Home Energy Assistance Program (LIHEAP)	energy bill assistance, weatherization	60% of state median income. Upper Threshold: \$48,275	\$176.5M (2016)
CSD	Weatherization Assistance Program (WAP)	weatherization	60% of state median income. Upper Threshold: \$48,275	\$5.8M (2016)
CSD	California Low-Income Weatherization Program (LIWP)	solar, weatherization	60% state median income and in disadvantaged area (80% of area median income (AMI) for PV). Upper Threshold: \$48,275	\$174M (2016)
CPUC	Single-Family Affordable Solar Homes Program (SASH)	solar	80% of AMI, single-family homeowners. Upper threshold: \$69,450	\$162M (total)
CPUC	Multifamily Affordable Housing Solar Homes Program (MASH)	solar	multifamily housing; local hiring requirement	\$162M (total)
CPUC	California Alternate Rates for Energy (CARE)	energy bill assistance (30-35% discount on electricity and 20% discount on natural gas)	200% federal poverty level. Upper Threshold: \$48,600	\$1.281B (2016)
CPUC	Family Electric Rate Assistance Program (FERA)	energy bill assistance (12% discount on electricity)	250% federal poverty level. Upper Threshold: \$60,750	\$7.43 M (2015)
CPUC	Energy Savings Assistance Program (ESAP)	weatherization	200% federal poverty level. Upper Threshold: \$48,600	\$391M (2016)
CEC	New Solar Homes Partnership (NSHP)	solar	newly constructed single family and multifamily housing	\$25.8 (total for affordable housing projects)

Program funding figures determined through correspondence with relevant program administrators. Source: CEC Low-Income Barriers Study, Part A

Founded in 1988, Mutual Housing California develops sustainable housing that is affordable to a diversity of households. Our housing builds strong and stable communities through resident participation and leadership development. For more information, call (916) 453-8400 or visit our website at mutualhousing.com.

barriers, wall and window insulation to reduce energy needs, revamping heating and cooling systems, and bringing in renewable energy sources. However, implementing these measures while simultaneously ensuring that rents remain low can be difficult, said Guerra. A recent Mutual Housing California development upgrade and retrofit, which included upgrading attic installations as well as heating and cooling systems, cost around \$90,000 per unit, which included upgrades to the attic insulation, heating cooling system, hot-water heating system, lighting and appliances. That figure excluded soft costs like building permits and temporary resident relocation which she estimates amount to around \$53,000 per unit.

Programs like the Multifamily Affordable Solar Homes Program (MASH), an initiative administered by Pacific Gas & Electric, Southern California Edison and the Center for Sustainable Energy that provides investor-owned-utility-served multifamily facilities with incentive for solar electric systems, and the Multifamily Affordable Housing Solar Roofs Program, which is funded in part through IOU greenhouse-gas allowance proceeds, offer developers some options. The Low-Income Weatherization Program (LIWP) also allows for incentives for a maximum of 80 percent of upgrades related to energy efficiency and 100 percent for solar installations.

But developers say there are policy-related and structural challenges with these programs as

well. The weatherization program, for instance, has eligibility requirements that can prove to be a problem. According to Guerra, one of Mutual Housing's recent developments, while located in a low-income community, didn't officially qualify as being located in a disadvantaged community and therefore didn't qualify. Meeting the energy-efficiency threshold, a basic level of energy savings to qualify for the plan, also necessitates construction and drives up costs, she said.

"If incentives were based on construction costs, I think it would definitely help us be able to introduce new technology," she added.

The California Utility Allowance Calculator, which is used to estimate utility allowances for low-income housing projects, has allowed developers to cover costs for new projects. However, Guerra said that this hasn't been the case with retrofitting existing buildings, since the California Tax Credit Allocation Committee hasn't had the resources to monitor all the developments that will be using the calculator for their properties.

At a May 16 joint CPUC and CEC meeting on the Low-Income Barriers Study, stakeholders discussed measures that would help multifamily residence developers and owners make better use of clean-energy programs.

Cash flow needs to be considered in conjunction with incentive programs, said Betsy McGovern-Garcia, program director of real estate development with Self-Help

Enterprises, since many developers don't have the financial capacity to front the cost of energy-efficiency projects. Robust technical assistance would also help.

McGovern-Garcia also highlighted the difference in program availability in urban and rural areas, pointing out that outside large cities, programs are few and often funded for very short periods of time.

"[I]f the state really wants to achieve broad statewide energy-efficiency targets and outcomes, they need to continue focusing resources on rural communities and disadvantaged communities," she said.

Program timelines need to be extended in order to better accommodate construction schedules, said Nick Dirr, director of multifamily technical services at the Association of Energy Affordability, since constructing a project could take 12 to 16 months, but aspects like design development and financing begin well before that. He also stressed the need to ensure that program momentum is retained.

"What we see with a lot of our programs is that people dip their toes in the program a little bit, bring in one or two projects and see how it goes. After it goes really well, they come back with...additional projects that they want to take through the program – as long as we can have a longer program there, we can capture that momentum building in the market," Dirr added.