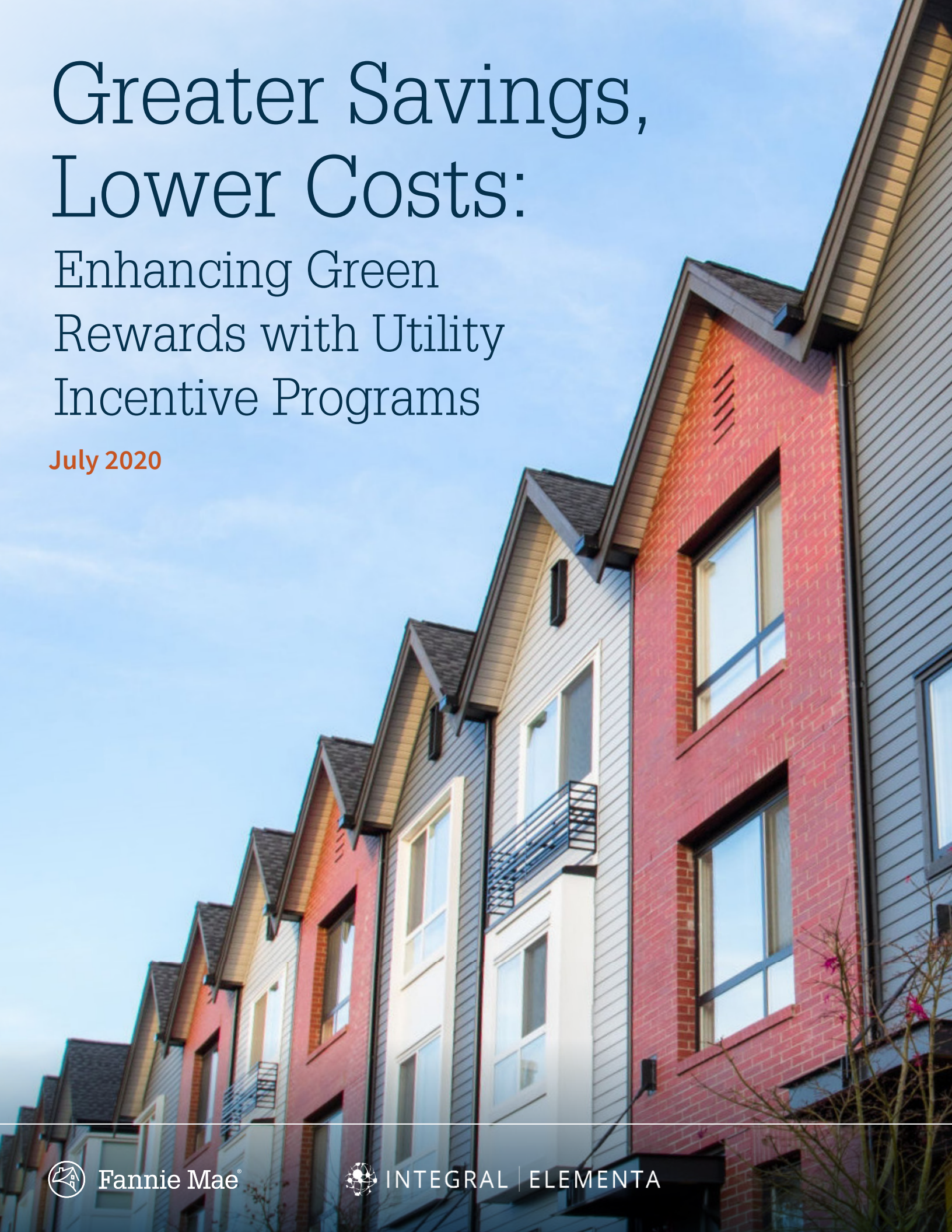
Greater Savings, Lower Costs:

Enhancing Green Rewards with Utility Incentive Programs

July 2020



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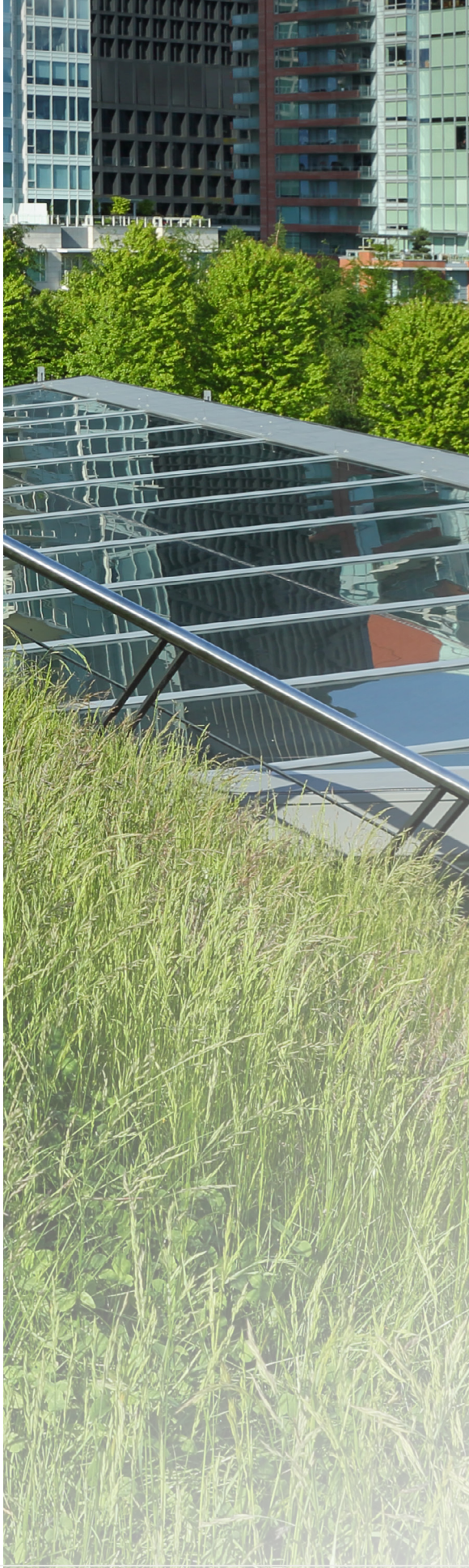

Overview

Fannie Mae's Green Rewards loan product provides incentives for multifamily property owners to renovate and retrofit existing multifamily properties with capital investments in energy efficiency, water efficiency, and/or energy-generating solar technology and systems. The program is ideal for property owners interested in improving the property condition and cash flow of existing multifamily buildings. Property owners can decrease operating costs and create value with smart energy- and water-saving property improvements, including upgrading to ENERGY STAR®-certified appliances, improving insulation, replacing inefficient lighting, upgrading heating systems and thermostat controls, and more. The costs of installing these efficiency measures do not have to be borne by borrower equity or loan financing alone — state and utility efficiency incentives can help.

Utility incentive programs provide both residential and commercial customers with no-cost/low-cost products, services, or other incentives to improve the efficiency of their buildings. Although the multifamily sector has not always been a focus of energy efficiency incentives, this is changing as utilities aim to reach more stringent energy savings targets.[1] Almost all states now have efficiency programs specifically targeting multifamily buildings. This white paper aims to provide guidance to multifamily property owners on how to utilize utility and State Energy Office (SEO) efficiency program incentives, in conjunction with Green Rewards to leverage greater benefits.

Green Rewards benefits

- Energy and Water Audit Report 100% paid for by Fannie Mae.
- Preferential pricing.
- Up to 5% additional loan proceeds.
- Increased net cash flow by underwriting projected energy and water savings.
- No minimum investment per unit.
- Disclosure of the loan as a "Green MBS" to the investor.

Who offers these incentives?

Energy efficiency incentives are operated generally by electric and natural gas utility providers, SEOs, or separate authorities created for this purpose. Sometimes, the utility providers or the state governments operate these programs directly, but often third-party program administrators are contracted to operate the programs under a state or utility provider brand. Many states have more than one utility provider serving customers. Some states also have created separate entities with the sole or prime purpose of administering efficiency programs. For simplicity, we use the term Program Administrator (PA) to refer to the entities providing the energy efficiency incentives. PAs pool monies from various sources, including assessments on bills for public benefits charges, general utility revenue, and local and state funds. PAs also determine if a property qualifies for incentives. Programs may include restrictions, which can be based on property location, whether the property serves low- to moderate-income households, or other factors.

1 Stefen Samarripas, "Multifamily energy efficiency spending nearly triples in four years," American Council for an Energy-Efficient Economy, February 21, 2017, aceee.org/blog/2017/02/multifamily-energy-efficiency.

The High Performance Building (HPB) consultants that perform energy and water audits for Green Rewards Mortgage Loans may not be aware of all program options and qualification requirements for a specific property. To maximize the benefits of Green Financing, property owners should contact their PA or SEO to understand the full scope of available benefits. Resources to find additional programs are provided at the end of this document.

Many energy efficiency programs offer incentives for equipment that reduces hot water consumption, as that reduces the energy needed to heat water. In some water-constrained parts of the country, water utilities and local governments also offer incentives for water-efficient equipment based solely on the water conservation potential. These water efficiency programs function similarly to the incentives discussed below.

Property owners may be able to access many program benefits even if they do not pay all utility costs for the building. Some program types — especially direct rebates — may require that the utility account holder be the one who receives the rebate, which can complicate the use of incentives when tenants pay for their electricity. See below for more details.

Benefits of energy efficiency

Energy efficiency provides multiple benefits beyond simple cost savings to the owner. Buildings that achieve greater energy and water efficiency may prove more attractive to tenants, command higher rents and better tenant-retention, and have increased resale value. Moreover, investing in energy efficiency can offer health benefits for residents at a micro and macro level. On the micro level, a well-designed and built home with better lighting, heating, insulation, and ventilation can lead to better health outcomes for residents.[2] At the macro scale, reducing energy use avoids emissions of greenhouse gases that cause climate change and air pollutants that exacerbate asthma and other health conditions.

Going deeper

Borrowers may be able to realize greater financial benefits from the Green Rewards Mortgage Loan by electing to spend more and leveraging available incentives to install additional energy efficiency measures above and beyond the basic program requirements. Green Rewards Mortgage Loan Borrowers tend to select the lowest-cost combination of efficiency measures that will allow them to reach the minimum eligibility requirement of 15% projected energy savings and 30% combined projected energy and water savings. However, investing in a deeper energy retrofit may make the project eligible for utility incentives that cover part or all of the installation cost, resulting in a lower total project cost. Utility incentives can help property owners complete deeper retrofits at lower costs while leading to significant long-term financial benefits.

Deeper energy retrofit projects generally include upgrading the building's heating, air conditioning, and ventilation (HVAC) systems, hot water heating, and/or building envelope insulation. When combined with lower-cost measures like lighting and low-flow water fixtures, these projects can reduce building energy use by 30% to 60%. While these additional measures have greater upfront costs, the yield is greater utility savings. Installing many of these measures

2 "Occupant Health Benefits of Residential Energy Efficiency," E4 The Future (November 2016), e4thefuture.org/wp-content/uploads/2016/11/Occupant-Health-Benefits-Residential-EE.pdf.

is often inevitable, as systems age. Since retrofitting a property has fixed costs in construction staging and tenant notification, combining multiple measures into one retrofit will save time and money.

Program types

Multifamily energy efficiency programs typically fall into one of five categories; understanding these categories will help multifamily property owners find the right program for their needs. Renewable energy programs also have multiple sub-categories, discussed briefly below. Not all types of efficiency and renewable energy programs will be available in all markets.

1. Direct-install programs

Many utilities incentivize property owners to make energy efficiency upgrades by covering part or all of the cost of equipment and installation. Direct-install programs typically include measures such as energy-efficient LED lightbulbs, faucet aerators and showerheads, basic pipe insulation, and weather-stripping.

Typically, programs require a walk-through property qualification and opportunity assessment to confirm the property has not already installed the equipment eligible for incentives and to identify qualifying energy-savings opportunities. The PA then negotiates directly with a participating contractor to install the measures, and that contractor works with the property owner to facilitate installation.

2. Prescriptive incentives

Prescriptive incentives, often called rebates, offer a flat-rate or quantity-based incentive for specific energy efficiency or water efficiency measures. This is the most common form of efficiency incentive, available in most states. The PA fixes the value of the rebate based on their estimates of the average savings of that piece of equipment in the market. Verification of the savings estimated by a consultant is not usually required, though in some cases a PA may wish to conduct an assessment to verify installation. Limits often exist on the number of incentives per equipment type and per customer that can be claimed per year. The PAs may require direct involvement for tenants who pay the utility bills in order to claim the incentives, depending on the state and program. Property owners may access prescriptive incentives and rebates in several different ways:

- **Direct customer rebates, post-purchase:** The account holder (either property owner or tenant) submits a rebate form to the PA listing the specific equipment installed, with proof of purchase. The customer receives the rebate after submission. This sort of incentive is most common for residential appliances such as smart thermostats, refrigerators, washing machines, and toilets.
- **Rebates through specified contractors, post-installation:** The property owner contacts the PA for a list of participating contractors and hires that contractor to install the measures. The contractor then informs the PA of the measure installations, and the PA sends a cash rebate to the customer. This type of incentive is most common for HVAC and water-heating equipment.
- **Upstream incentives:** These include financial incentives provided directly to the company selling a product or the contractor providing a service. Contractors and companies bake the incentives into the listed prices. This kind of incentive is most common with lighting. The PAs can provide property owners with a list of the stores and/or contractors participating in their discount programs.

3. Comprehensive whole-building programs

Whole-building programs (a.k.a., "comprehensive" or "custom" programs) package multiple energy efficiency incentives into one program, making it easier for property owners to identify all the energy-saving opportunities for their building. Programs generally do not require property owners to implement all recommended measures, or any specific measures. Rather, property owners are usually required to either implement a minimum number of measures or meet a minimum whole-building energy savings target; new equipment must also meet the PA's minimum efficiency standards.

Unlike individual incentives, whole-building programs generally require comprehensive energy audits to identify energy savings opportunities. An approved assessor will recommend energy efficiency measures appropriate for the building and model projected savings. Green Rewards requires the equivalent to an ASHRAE Level II audit, which will also provide enough information for a whole-building incentive program. In some cases, the PA will conduct the assessment and energy modeling themselves, in addition to or in place of any third-party evaluation. If a state's whole-building program requires the use of an approved rater, it is recommended that the property owner selects a consultant on the PA's list. In most cases, the PA will have their own paperwork that will need to be completed, which the consultant will do based on their audit; some PAs accept a range of audit report options, and an HPB Report itself may be sufficient.

Whole-building programs particularly fit well with the Green Rewards program, as both require that a consultant conduct an audit and identify measures and the owner select efficiency measures to implement. In addition, whole-building programs provide more flexibility for buildings where tenants pay some of the utilities. While some prescriptive programs may only offer reimbursements to utility account holders, a whole-building program will provide incentives directly to the property owner working with the PA.

4. Performance-based incentives

Performance-based incentives are a newer type of efficiency program aimed at motivating deeper savings and often provide higher financial compensation for complex, multi-measure projects.

The term usually refers to a program that issues reimbursements based on the modeled energy savings of a suite of measures. Performance-based incentives are sometimes only available when savings are forecasted to exceed a certain percentage. To utilize a performance-based incentive, a property owner applies with a list of measures planned for installation and the projected energy efficiency savings. The PA will usually have its own documentation, which can be completed using the information from the HPB report. The PA then verifies the projected savings and issues an incentive once their installation is confirmed by a contractor. The PA may also hold a portion of the incentive in reserve pending actual performance. The second case study on page 9 is an example of both a comprehensive and a performance-based program.

Another type of performance-based program is "pay for performance," which provides a variable incentive based purely on actual achieved energy savings relative to past performance. These programs are well-suited to support multi-measure whole-building projects and operational improvements where isolating savings by individual measure proves difficult. However, keep in mind that any improvements made to qualify for Green Rewards must be capital upgrades.

5. Low-income multifamily (LIMF) programs

Many states offer specific energy efficiency programs targeted at multifamily properties with predominantly low-income or low-to-moderate-income (LMI) populations. Low-income programs can be any of the above types, though direct-install and whole-building programs remain the most common. Low-income programs tend to cover a greater percentage of the cost of energy efficiency measures than other programs and in many cases will cover the full cost of selected measures. On average, across the country, market-rate multifamily programs cover one-third to one-half of the costs of efficiency measures, with the property owner covering the remaining portion. In the low-income space, on average, efficiency programs cover 90% of costs, and the customer covers 10% of costs.[3]

Each state and program will set specific income targets for LIMF programs, and these targets vary widely, so consult the state PA for details. Generally, the targets are based on the percentage of the units rented to households below certain Area Median Income (AMI) targets — some programs only require that 25% of units meet a given AMI target. Often, these programs do not require that rent or income regulatory restrictions be in place to maintain affordability, making them broadly available to multifamily properties.

One specific LIMF program available nationwide is the federally funded Weatherization Assistance Program (WAP). WAP is a direct-install program focused on basic weatherization measures, such as insulation and weather-stripping. Unlike other LIMF programs, WAP funds come directly from federal monies distributed to the states and are administered through SEOs or various community-based organizations (CBOs) selected by the state.

6. Renewable energy incentives

In addition to incentives for energy efficiency, many jurisdictions have strong incentives for installing solar or other renewable energy systems. Renewable energy installations may look expensive at first glance, but federal and state incentives often dramatically reduce the costs. These incentives come in several types:

- **Investment tax credits (ITC)** are a federal government tax credit for installing on-site renewable energy systems. As of 2020, the tax credit offsets up to 26% of the system costs. The ITC is currently scheduled to phase down to 10% in 2022, but this phase-down has been delayed in the past. The ITC is only available to entities that have federal tax liability.
- **Feed-in tariffs** are a measure that provides a direct payment on the utility bill to incentivize the system, above and beyond the savings from the electricity generated.
- **Solar renewable energy credits (SRECs)** are credits that investors pay for the environmental benefits of the renewable energy generated. Although engaging directly in this market may seem complicated, many private companies will handle the SREC sales on the property owner's behalf.
- **Community solar** allows tenants to subscribe to the generation from a renewable energy project and get credit on their bills for the electricity generated either on the roof of their building or from another location. If tenants pay their own electric bills, a solar photovoltaic system may be able to offset much of the common area electricity use. If it could offset more than that, tenants may also be able to benefit if the state allows for "community solar."

[3] Ian M. Hoffman, Charles A. Goldman, et al., "The Cost of Saving Electricity Through Energy Efficiency Programs Funded by Utility Customers: 2009–2015," Lawrence Berkeley National Laboratory (June 2018), emp.lbl.gov/publications/cost-saving-electricity-through.

Process for utilizing energy efficiency programs with Green Rewards

Engage.	
Contact your Fannie Mae DUS® lender and ask for Green Rewards.	Your DUS lender will schedule a High Performance Building (HPB) assessment with an HPB consultant.
Research.	
Research multifamily utility and state energy efficiency programs in your area.	Find incentive programs in your area: a. Local utility website. b. State Energy Office website (find your state's energy office here). c. ENERGY STAR directory. d. Database for State Incentives for Renewable Energy (DSIRE).
Integrate and discuss.	
Share a list of incentives with your lender and HPB consultant.	Work with your lender to request that the HPB consultant incorporate measures you are interested in pursuing into the HPB Report. • Provide the HPB consultant the details for the selected incentive program. They may need to incorporate specific efficiency levels required by the program into the HPB Report. • Review the HPB Report produced by the HPB consultant, which details recommended energy and water efficiency measures.
Evaluate and select.	
Review the HPB Report with your lender and select the efficiency improvements.	• Factor incentives into the anticipated cost of upgrades to determine the expected cost of improvements after incentives. • If you are planning to leverage incentives from a comprehensive whole-building program, ensure that the set of measures selected meets the whole-building savings requirements (in addition to Fannie Mae's Green Rewards savings thresholds). • Your lender will escrow the full cost of selected measures, including any portion that ultimately will be covered by efficiency incentives.
Install and save.	
After the loan closes, purchase and install efficiency measures in coordination with the incentive program.	• Complete all improvements within 12 months of loan origination to comply with Green Rewards requirements. • Submit necessary paperwork to the incentive program and receive rebates or arrange with the incentive program for a direct install, as applicable. • Once measures are installed and confirmed by the lender, funds held in escrow are released.

Borrower scenarios

Scenario 1: Reduce costs with direct-install programs

Incentive program type	Direct-install
Program administrator type	Electric utility
Utilities affected	Electricity, water
Property information	67 units, 1963 construction

Located in North Carolina, the subject property is an eight-building low-rise comprising 67 units and was built in 1963. The utility that supplies electricity to the property, Duke Energy, offers a Multifamily Energy Efficiency direct-install program that will install LED interior lighting, faucet aerators, water-saving showerheads, and pipe insulation free of charge. Utility direct-install programs send technicians to the property to install the measures at no cost to the property owner or tenants.

Several of the energy and water efficiency measures recommended in the High Performance Building (HPB) Report are offered by Duke Energy's incentive program. The borrower selects efficiency measures projected to reduce source energy consumption by 19.0% and water consumption by 11.1%, for a total projected combined savings of 30.1% — qualifying the property for a Green Rewards Mortgage Loan. The Duke Energy direct-install program provides some of these measures at no cost, reducing the projected cost of the upgrades from $40,095 ($598 per unit) to $28,450 ($425 per unit).

The utility incentives reduce the total project cost by almost 30%, for a total installation cost savings of $11,705.

Selected energy and water efficiency measures

- ENERGY STAR-certified LEDs in all units, common areas, and exterior.
- ENERGY STAR-certified smart thermostats.
- Domestic hot water pipe insulation.
- WaterSense-certified bathroom faucet aerators.
- Low-flow kitchen faucet aerators.
- WaterSense-certified showerheads.

Projected savings: 19% energy, 11.1% water.

Projected utility cost savings: $54,911.

	Without incentives	Including incentives
Project scope	Lighting, thermostats, pipe insulation, low-flow faucets, and showerheads	Lighting, thermostats, pipe insulation, low-flow faucets, and showerheads
Projected energy and water savings	19% energy, 11.1% water	19% energy, 11.1% water
Installation cost (total)	$40,095 ($598/unit)	$28,450 ($425/unit)
Annual whole-property utility cost savings	$54,911	$54,911
Available incentives	N/A	$11,705

After closing the loan, the borrower works with Duke Energy to obtain an independent energy assessment and install the in-unit and common area interior lighting, pipe insulation, faucet aerators, and showerheads during a one-day installation. The borrower contracts directly for the installation of the efficiency measures that are not included in the Duke Energy incentive program. Once all measures are installed, the borrower can then receive the escrowed funds. Annually, the owner is expected to save $1,177 on utility bills.

Scenario 2: Deeper retrofit and more savings at reduced costs

Incentive program type	Whole-building comprehensive and performance-based
Program administrator type	Independent state authority
Utilities affected	Electricity, natural gas, water
Property information	50 units, 1965 construction

Located in New York state, the subject property is a three-building low-rise comprising 50 units and was built in 1965. The New York State Energy Research and Development Authority (NYSERDA) offers a Multifamily Performance Program for Existing Buildings, a whole-building performance-based program for existing multifamily buildings targeting 20% or greater energy savings. The program is available to properties where at least 25% of units are occupied by households earning 80% or less of the AMI. Even though tenants pay some of their own bills, the owner can still work directly with the program, which provides incentives of $700 – $1,500 per unit depending on the level of energy savings targeted.

The High Performance Building (HPB) Report identifies many possible opportunities for energy saving measures to meet the Green Rewards program eligibility requirements. The lowest-cost set of measures needed to qualify for a Green Rewards Mortgage Loan would cost $90,964, or $1,819 per unit. While this set of improvements would meet the Green Rewards minimum projected energy savings threshold of 15%, it would not meet the 20% projected energy savings needed to qualify the project for the NYSERDA program.

The borrower could lower the overall project cost by selecting additional energy efficiency measures to qualify for the NYSERDA incentives. The revised suite of measures is projected to reduce energy consumption by 25.4% and water use by 22.3%. The HPB consultant verifies that all the efficiency measures selected by the borrower meet NYSERDA's minimum efficiency requirements.

Because this project is now projecting between 25% and 29% energy savings, it is eligible for incentives of $800/unit from the NYSERDA program. Before factoring in the incentives, the total projected cost of the upgrades is $120,464, or $2,349 per unit; including the NYSERDA incentives would bring the total cost of the upgrades down to $80,464, or $1,609 per unit. The revised plan with incentives not only increases projected energy and water savings, but also lowers installation costs by 33%, for a total installation cost savings of $10,500.

Selected energy and water efficiency measures

- R-38 roof insulation.
- ENERGY STAR-certified smart thermostats.
- 95% efficiency ENERGY STAR condensing boiler — central boiler.
- ENERGY STAR-certified LEDs in all units and common areas.
- ENERGY STAR-certified washing machines.
- WaterSense-certified weather-based irrigation control system.
- WaterSense-certified bathroom faucet aerators.
- Low-flow kitchen faucet aerators.
- WaterSense-certified showerheads.
- WaterSense-certified toilets.

Projected savings: 25.4% energy, 22.3% water.
Projected utility cost savings: $54,911.

	Without incentives	Including incentives
Project scope	Roof insulation, thermostats, lighting, irrigation, thermostatic diverters, and low-flow faucets	Roof insulation, thermostats, lighting, irrigation, thermostatic diverters, low-flow faucets, low-flow showerheads, central boiler, and clothes washers
Projected energy and water savings	17.4% energy, 13% water	25.6% energy, 22.7% water
Installation cost (total)	$90,964 ($1,819/unit)	$80,464 ($1,609/unit)
Annual whole-property utility cost savings	$19,307	$23,603
Available incentives	N/A	$40,000

Once all the efficiency measures are installed, the borrower can receive the escrowed funds and a portion of the NYSERDA incentives. NYSERDA offers incentives in a staged basis — making $100 per unit available after initial analysis, $250 per unit available once upgrades are 50% complete, $350 per unit available once installation is complete, and the final $100 per unit is held until the building meets the 20% performance threshold based on a year of utility data. By targeting 25.4% in energy savings, the borrower has provided some breathing room for achieving the required NYSERDA savings. In the event the building energy use is reduced by less than 25% but more than 20%, the borrower can still receive a performance payment. If the actual savings over 12 months are less than 20%, the borrower can request an additional six months to demonstrate savings and earn the performance payment. The owner is expected to save $7,724 per year on utility bills, while tenants are expected to save $318 per year on average.

Locating incentives near you

EPA ENERGY STAR Directory: EPA's ENERGY STAR program provides a directory of energy efficiency programs for commercial buildings that incentivize upgrading with ENERGY STAR products. Many programs are applicable to multifamily residential buildings. Visit energystar.gov/buildings/tools-and-resources/directory-energy-efficiency-programs-leveraging-energy-star.

EPA WaterSense Rebate Finder: EPA's WaterSense program provides a directory of programs that offer rebates for water-efficient equipment for residential and commercial buildings. Visit lookforwatersense.epa.gov/rebates.

American Council for an Energy-Efficient Economy (ACEEE): ACEEE surveys efficiency programs and ranks all states and utilities for progress on energy efficiency. For property owners with multi-state holdings, this is particularly useful in deciding where to target utilization of incentives. Visit database.aceee.org.

Contact your utility provider: Property owners can also directly contact their local utility or visit the local utility's website for more information on energy-efficiency incentives.

Contact your State Energy Office (SEO): An SEO will have more information on the programs available in a particular locale. To find your SEO, visit naseo.org/members-states.

Contact your weatherization assistance provider: Multifamily properties with predominantly low-income or low- to moderate-income populations who want to leverage the additional incentives available through the Weatherization Assistance Program can look up their local administrator at nascsp.org/about/state-contacts.

The Database for State Incentives for Renewable Energy (DSIRE): DSIRE contains information on thousands of incentive programs for renewable energy and energy efficiency upgrades nationwide. Property owners can browse programs available in their state, turn on filters to narrow their search to programs that apply to multifamily properties, and learn more about specific programs. DSIRE provides links to sites where property owners can find contact information for their utility or state agency to learn more and initiate the process toward achieving savings. Please note that this database has not been updated recently, so it may contain outdated information. Visit dsireusa.org.