



St. Mary's Gardens Apartments

Empowering Senior Living Through Energy Efficiency & Solar Retrofits

Senior Housing Community | Built in 1979 | 101 units

Oakland, CA

Photo by Sunrun

The St. Mary's Gardens complex in Oakland, California, is leading the charge in implementing sustainable upgrades directly benefiting its residents, predominantly senior, immigrant, and Chinese-speaking community. In 2020, board members of the St. Mary's Elderly Housing Corporation set out to integrate a solar photovoltaic (PV) system, energy-efficient upgrades, and resident engagement plan, all designed to prioritize the seniors' comfort and well-being through participation in the Low-Income Weatherization Program (LIWP) and various other decarbonization programs.

St. Mary's Gardens, built in 1979 as a HUD Section 8 housing development for low-income seniors, faced infrastructure issues over time. Recent HUD-funded renovations included total exterior siding replacement, upgraded windows, exterior doors, elevators, and some improved bathrooms and kitchens. These upgrades led the Board to seek further funding for targeted improvements to reduce energy costs and enhance benefits for residents.

St. Mary's Gardens was referred to LIWP as part of its participation in the Solar on Multifamily Affordable Housing (SOMAH) Program. Similarly, LIWP refers projects in investor-owned utility service territories to SOMAH for solar incentives. With SOMAH's no-cost technical assistance and comprehensive support, board members navigated project feasibility and financing options and identified additional energy efficiency opportunities. As typical, participation in one program in this case SOMAH spurred deep energy efficiency upgrades through enrollment in LIWP, the Bay Area Multifamily Building Enhancements (BAMBE) program, and the TECH program.

By layering LIWP with other programs and the no-cost technical assistance provided by AEA, St. Mary's Gardens was able to replace outdated equipment with more efficient options, including removing natural gas equipment. This increased building safety, improved indoor air quality, and enhanced resident comfort but also ensured long-term financial sustainability for the community, providing a sense of security for all stakeholders.



From comparing utility consumption of April - October of 2021 to that of 2023, the property has reduced GHG emissions by **17.65 MTCO₂**.



14 acres
of US forest

or



29,869
miles driven

or



4 tons of waste
recycled instead
of landfilled

For more information about LIWP-Multifamily, contact liwpinfo@aeacleanenergy.org

Table 1.0



Smart Thermostats - 1st Floor Common Areas	✓			
Replace 3 DOAS units with HP HVAC for hallway heating/cooling	✓	✓		
<ul style="list-style-type: none"> • DHW, Common Area Kitchen - Replace natural gas storage tank with HPWH • HP HVAC, First Floor Common Areas - Replace four natural gas FAUs with HP HVAC • Central HPWH, Residents - Replace natural gas boilers in all three buildings with central HPWH systems <ul style="list-style-type: none"> ◦ Recirculation controls for central HPWH systems ◦ Pipe Insulation for central HPWH systems 	✓	✓	✓	
Solar PV System (106 kW)				✓
TOTAL INCENTIVE	\$185,430	\$161,550	\$191,000	\$249,357 (Reserved)

* Incentives provided are evaluated individually for each project. All equipment and installation needs must adhere to the requirements of the respective program.

Table 1.1

Total Cost of Construction (without solar included)	\$906,114
Total Incentive (LIWP, BAMBE, & TECH)	\$537,980
Funding Gap (remaining non-leveraged project cost)	\$368,134

The comprehensive scope of work funded through LIWP, SOMAH, BAMBE, and TECH captured in Figure 1.0 offset approximately 60% of the construction expenses, significantly reducing the project's funding gap and enabling extensive electrification measures. Additionally, the entire installation cost of the solar PV system was covered by a third-party ownership option known as a solar services agreement (SSA). Under this agreement, the installation contractor is responsible for the system's operations and maintenance for the next 20 years, requiring no upfront cost or payment from St. Mary's Gardens. The projected utility bill savings from the solar PV system are expected to offset nearly 70% of the tenants' bills through virtual net energy metering.

In January 2024, a ribbon-cutting ceremony was held to celebrate the completion of the solar installation and energy efficiency upgrades. During the event, residents expressed their deep appreciation for the Board's comprehensive sustainability initiative and the significant impact the projected utility bill savings would have on them. They thanked St. Mary's Gardens and the AEA for enhancing their buildings' energy efficiency and contributing to a more sustainable neighborhood and community. St. Mary's Gardens Board members are committed to continuing residents' learning experiences and plan to maintain these efforts into the future.

"Projects may be challenging working with utilities and contractors, but at the end of the day it can be done. It can be done with the support that comes through these programs that we can do a lot of the heavy lifting for you. If there's passion there's a will!"

- Staci Rivas, AEA Technical Analyst



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