

# HERO Program Profile

## *Final Report*

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Pacific Gas and Electric Company, San Diego Gas & Electric,  
Southern California Edison, and Southern California Gas Company

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Prepared by:  
Karen Horkitz  
Pat McGuckin  
Laura James  
Christopher Frye  
Hugh Ratcliffe  
Cadmus Energy Services



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## Executive Summary

In 2013, the California Public Utility Commission (CPUC) issued an order that the California investor-owned utilities (IOUs), in collaboration with the California Alternative Energy and Advanced Transportation Financing Authority (CAEATFA) and other state and regional agencies, offer coordinated, statewide financing programs to support energy efficiency improvement projects in residential, multifamily, and commercial markets. The first of these financing pilots, the Residential Energy Efficiency Loan Assistance Program (REEL), launched in the spring of 2016.

Since 2013, a property-assessed clean energy (PACE) financing program for single-family homeowners, known as HERO (formerly the Home Energy Renovation Opportunity Program) and beginning in western Riverside County, has expanded to cover most of the state of California. HERO loans have funded over \$1.6 billion in energy and water conservation improvements to single-family homes. The IOUs commissioned this study to provide insight into the factors that are driving the HERO Program to such rapid growth and the program's impact on homeowners' decision-making process and installation of energy efficiency improvements. The study also assessed potential gaps in the market for residential energy efficiency financing that are not addressed by HERO. The study's findings will inform the IOUs efforts to support the REEL financing pilot and incorporate it as an offering in its energy efficiency portfolio programs.

This report evaluates these aspects of the HERO Program:

- Key components of program structure and implementation in terms of program growth
- Objectives of HERO stakeholders and HERO Program goals and design compared to driving energy efficiency
- Characteristics of typical participants and projects funded by the HERO Program compared to IOU rebate programs and projects not influenced by any program

A companion report, the *HERO Program Savings Allocation Methodology Study*, compares different methodologies for determining the relative impact of financing and IOU rebates on a homeowner's decision to make an upgrade.

### Key Findings

The findings in this report are based on these primary data collection activities:

- Interviews with six local government sponsors of the HERO Program, including the Western Riverside Council of Governments (WRCOG), the local government with primary responsibility for administering the program
- One interview with Renovate America staff
- Interviews with 23 participating contractors
- An online survey of the general population of single-family homeowners in parts of Riverside and San Bernardino counties where HERO initially launched (3,501 completed surveys)



## Contractor Network

HERO has several hundred participating contractors who serve as the primary delivery channel to customers. Contractors have joined because HERO has the potential to grow their businesses by giving people—who previously had few payment options—a great deal of purchasing power. Participating contractors reported they are very satisfied with the program for a number of reasons. HERO has set a high bar for features that are most critical to contractors' business, such as speed, support, flexibility, and polished marketing. Although the HERO process is not quite as fast as a credit card, customers can be approved during sales visits. HERO provides extensive, ongoing training to contractors, and the call center remains available seven days a week. Contractors reported it was very easy to get a response from the call center so many make it a regular practice to have a call center representative on the line while they present the HERO option to homeowners, even before the homeowners asks a question.

Although contractors typically participate in many financing programs, they tend to present only one option at a time to an individual customer. Other PACE programs that compete with HERO focus on expanding their own contractor base and convincing these contractors to offer their PACE program over HERO; however, contractors said they consider HERO the standard other programs need to meet.

## Marketing

The primary messages in most HERO marketing materials are that the program is fast, easy to use, and popular with other homeowners. Messaging also emphasizes that the program is designed to achieve a social good—conservation—and is sponsored by local governments. Contractors report HERO materials are helpful in persuading customers to move forward and lend credibility to their own business. The program offers a number of print and online marketing resources, but contractors said a three-minute, animated video that explains the program was the most helpful tool. Most contractors do not mention HERO in their own marketing, and most customers learn about the program from the contractor during a sales visit when they are considering a specific purchase.

## Key Benefits for Customers

The HERO Program advertises that it is fast and easy, and several features of the program are designed to ensure this. Customers receive approval over the phone, while the contractor is in the home, and know right away what they can afford. Customers can sign all documents online using an electronic signature; there is nothing to mail and no need to visit a bank.

Nevertheless, HERO is not as fast as paying cash, using a credit card, or using contractor financing. However, the HERO financing product offers two key advantages over other payment alternatives with comparable convenience:

- Customers can finance up to 15% of the value of their home, depending on how much equity they have available. This gives many customers considerably more buying power than if they used cash, a credit card, or other unsecured financing.
- The assessment's tenor can extend to 20 years, making payments for such large sums manageable for many customers. Although HERO interest rates and fees are high compared to



some financing options (e.g., a home equity line of credit), they are equal to or lower than most credit cards and contractor financing.

The combination of these features—convenience, large financing amounts, and long terms—makes HERO unique. Each feature is available through other common financing products, but few other non-PACE financing products offer both. According to a homeowner survey, other popular features of HERO are the tax deductibility of the interest portion of the assessment, which offsets some of the cost, and the possibility of transferring the assessment when selling the home.

### Typical Projects

Cadmus surveyed the general population of single-family homeowners in target zip codes in Riverside and San Bernardino counties where HERO has been active longest. The survey asked about recent home energy upgrade projects,<sup>1</sup> identified HERO and rebate participants, and collected data on decision making factors and demographic details (The survey also found that HERO and rebate participants were about equally likely to install more than one item at the same time (55% and 59%, respectively), and these two groups were more likely to install multiple items at once than were nonparticipants. Among nonparticipants who completed a home energy upgrade project, only 34% installed more than one item in one project.

HERO participants spent far more money than rebate participants or nonparticipants. HERO projects, excluding solar PV installations, cost around \$20,000 on average, twice as much as the average project cost for rebate program participants (before accounting for any incentives). Nonparticipant projects cost just under \$7,000 on average.

Figure 1). The survey found that HERO and rebate participants were about equally likely to install HVAC equipment, insulation, and air sealing or duct sealing. HERO participants were more likely to install new windows than rebate participants, with about 53% of HERO projects including windows compared to 31% of rebated projects. Windows were the only item that HERO participants were more likely to purchase and install than were rebate participants. However, rebate participants were more likely than HERO participants to install water heaters and pool pumps or motors.

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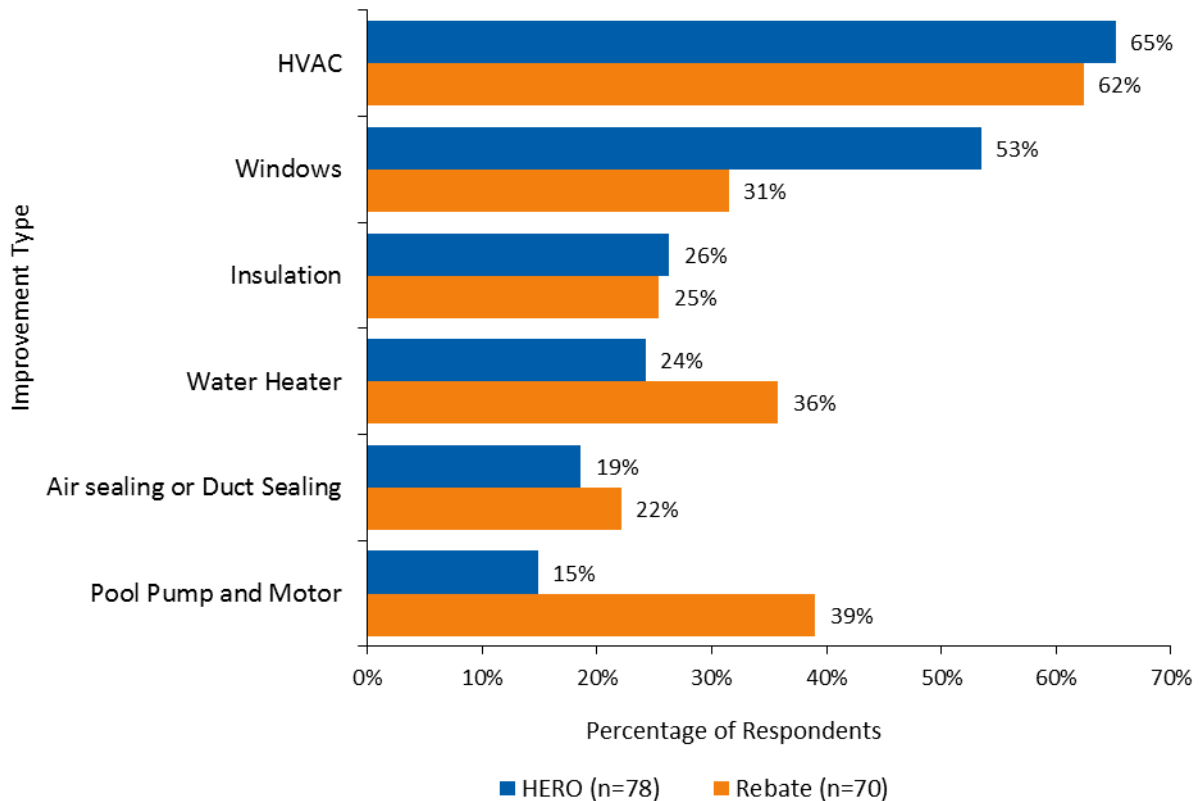
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<sup>1</sup> The survey asked respondents to consider only the following six types of equipment as a home energy upgrade: HVAC measures, insulation, windows, air or duct sealing, water heaters, or pool equipment. We selected these as the major measures more likely to require financing and be eligible for both HERO and rebates.



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**Figure 1. Commonly Installed Improvements\***



\*Respondents who used both HERO and a rebate are included in both the HERO and rebate groups.

### Typical Participants

Surveys show that HERO penetrates a different demographic than do rebate programs. On average, HERO participants tended to track closely to the general population for income and education levels. Rebate participants tended to have much higher incomes and slightly more education than the general population. For example, 58% of rebate participants had an income of \$100,000 or more, compared to 38% of HERO respondents and 36% of the general population.

On the other hand, the age distribution among rebate participants was close to the general population, but HERO participants tended to be younger, with 25% of HERO participants under 40 years of age compared to 17% of rebate participants and 14% of the general population.

## Satisfaction

Local government representatives and contractors reported high satisfaction with HERO overall among constituents and customers; however, surveys showed that HERO participant satisfaction was more varied. When asked to rate their satisfaction with HERO on a nine-point scale, with 1 being strongly satisfied and 9 strongly dissatisfied,<sup>2</sup> 32% of HERO participants chose 1, 2, or 3, indicating satisfaction. A nearly equal proportion, 33%, chose 7, 8, or 9, indicating dissatisfaction. About half of HERO participants responded to a question asking for suggestions to improve HERO. Nineteen percent (n=36) of HERO participants who answered the question suggested that the program needed to be more transparent about applicable fees and the tax deductibility of the assessment, and 15% of these respondents suggested the program should offer a lower interest rate.

## Gaps in the Market for Energy Efficiency Financing

Although participation in HERO has grown rapidly, the program is not an appropriate option for all homeowners. Some homeowners do not have sufficient equity in their home to be eligible for the program or would be denied because of recent bankruptcies or other existing liens. Some common energy efficiency projects may not meet the \$5,000 minimum cost.

HERO and PACE loans are also not equally affordable for homeowners. Retirees, self-employed homeowners, or others who do not have a significant income tax burden cannot deduct the interest from their taxable income, making the financing more expensive for them than for others who can take that deduction.

In addition, because HERO and other PACE financing programs are relatively new, customer attitudes continue to develop. Surveys indicated about 45% of homeowners who completed a project but did not use HERO were not comfortable financing a home improvement through their property taxes. In addition, some HERO participants were not satisfied with their HERO experiences, many because they did not understand the actual rates or fees they would need to pay or were disappointed to learn that their assessment interest was not tax deductible.

## Key Conclusions

### ***Financing is an important factor for achieving larger energy efficiency improvement projects with multiple measures.***

Customer surveys indicated that homeowners who used HERO spent more than twice as much as homeowners who only used a rebate or homeowners who did not participate in any program. Projects that were financed, whether through HERO or other means, were larger than projects paid for in cash, and HERO projects were larger than projects financed through other methods. This indicates that

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<sup>2</sup> The 1-9 scale, though unusual in most contexts, is typical for studies using the analytic hierarchy process, one of the methodologies Cadmus reviewed as part of this study. The same scale was used for all survey questions for consistency.



financing is an important factor in large investments in home energy efficiency, and HERO is a popular choice among homeowners completing the largest energy efficiency upgrades.

***HERO enables high-efficiency improvements in market segments that rebates do not penetrate.***

Survey results indicate that the average HERO respondent was likely to be younger, less educated, and have a lower income than the general population. Rebate participants were likely to be older, more educated, and have higher incomes than the general population. These results indicate that financing may enable high-efficiency upgrades for groups that rebates have historically struggled to impact.

***Despite the popularity of HERO and PACE, there are still gaps in the market for residential energy efficiency financing.***

Although the HERO Program is making inroads, the residential market remains largely untapped. Seventy-three percent of survey respondents have not made any energy efficiency improvements in the last three years (46% have not even considered improvements, while 27% have considered them but not acted). Only 2% of respondents have used the HERO Program. New financing programs—and the new marketing that would accompany them—could help accelerate the adoption of residential energy efficiency improvements.

Although PACE works well for many people, it does not work for all market segments. PACE may not be a suitable option for the following:

- Projects less than \$5,000
- Renters
- Homeowners with no equity
- Homeowners with recent bankruptcies

PACE may be more expensive for some groups that cannot benefit from the tax deduction. For example, retirees or self-employed homeowners may not have a tax burden or may already have a substantial number of write-offs. Long tenors that allow low payments may still make PACE a useful alternative for these groups, but the product is not as affordable for them over the long term as it is for others.

Even among market segments that qualify for HERO, some homeowners expressed discomfort with some aspects of the financing. Almost 50% of homeowners who completed an energy-related upgrade but who did not use HERO said they did not wish to use their house as security for financing. There is opportunity for a financing alternative to HERO that offers lower rates and fees and that addresses the information and confidence barriers that customers may face when considering an upgrade. There was also anecdotal evidence that some contractors would see a marketing benefit in a financing option offered through a utility program. For example, two contractors said they were very interested in utility-sponsored financing options because they believed the utility brand would lend additional credibility to their proposals.

***Meeting contractor needs is the key to delivering energy efficiency financing.***

As demonstrated by the three PACE programs administered by third-parties and most active in California (HERO, California FIRST, and Ygrene), the key to driving participation in a financing program is to meet the needs of contractors. All three programs have dedicated significant resources to providing an easy and reliable tool that can help contractors grow their businesses. As a result, all three programs have seen rapid expansion and growth in participation. There is good reason for this focus on contractors; they are in the advantageous position of working face-to-face with homeowners at the point of sale and are therefore well-positioned to influence the customer's decision. Contractors recognize that financing can be a crucial tool to overcoming cost objections and closing sales, and they typically choose to have multiple financing products available to offer customers. However, contractors will only promote the financing product that is both most likely to close the sale and requires the least amount of work on their part.

To succeed, a financing product must be easy for contractors to integrate into their sales process and business operations, achieving the following:

- Port seamlessly into their proposals
- Offer customers a compelling proposition
- Accept a broad array of eligible measures
- Approve the majority of customers
- Confirm approval quickly while the contractor is “at the kitchen table”
- Support fast and easy closings
- Pay the contractor promptly

Effective product and sales training is also important, as is readily available support when needed. HERO has now set a high standard for meeting each of these criteria from a contractor perspective.

***Program flexibility is crucial for contractor and customer appeal.***

PACE financing offers a broad tool that can help achieve a variety of goals. Though the program's energy and water conservation elements offer two important benefits, WRCOG sponsored HERO primarily to achieve economic goals. Such goals appear to carry fewer policy requirements than conservation goals, and the absence of ratepayer or significant taxpayer subsidies avoids the need for extensive regulatory oversight on spending or program outcomes. As a result, HERO has been able to offer a simple application process and minimal restrictions on eligible measures, which have been key factors in its growth. (In contrast, when the SCEIP PACE program sought to enforce a policy-driven project loading order, requiring efficiency measures before renewables, participation dropped sharply.)

***Key Recommendations for the Residential Energy Efficiency Loan Assistance Program (REEL)***

***Promote REEL's ability to serve market segments that HERO does not serve.***



Not all homeowners are able to—or want to—use the HERO Program. CAEATFA and the IOUs should take steps to make sure that these customers are aware of REEL, thereby encouraging them to make high-efficiency choices that might not be made otherwise. REEL can create this awareness through contractors at the point of sale and through IOUs’ existing communications with customers. Segments that the HERO Program does not serve include:

- **Projects under \$5,000.** These smaller purchases still represent a major expenditure for many homeowners, especially those facing the unexpected expense of replacing failed equipment. Customer surveys showed that the average price for standard-efficiency projects was below \$5,000, and good financing could help customers who might otherwise buy the cheapest available option. This market segment, and the contractors who work in this segment, may be worth special attention.
- **Homeowners who want to—or need to—finance non-eligible measures** along with eligible measures. With REEL, up to 30% of the loan can be for non-eligible measures, whereas HERO requires that all measures are eligible. Non-eligible measures are sometimes a necessary part of an energy improvement project, especially in older homes. For instance, a home with aluminum wiring should replace it with copper wiring before installing new electrical measures.
- **Homeowners who want a lower interest rate or lower fees,** to the extent that REEL lenders offer lower rates and fees.
- **Homeowners with less than 10% equity in their home.** REEL loans are not secured by an interest in the property, so equity is not a requirement.
- **Homeowners with a late property tax payment in the last three years.** Depending on the circumstances, these homeowners may still be creditworthy borrowers.
- **Homeowners in communities not served by HERO.** The HERO Program is available in most of California (more than 340 cities), but more than 130 cities are not yet served. Although not all of these 130 or more cities are in REEL territory, and many of them are expected to authorize the HERO Program, REEL should track which cities in its territory remain unserved.
- **Homeowners who may prefer more traditional financing** that does not involve repayment via property taxes, does not place a lien on their home, and does not raise questions upon resale or refinance.

***REEL needs to offer speed and convenience that is comparable to HERO, unless REEL can offer other significant benefits to contractors relative to what HERO offers.***

Contractors and customers reported that the convenience of HERO was a key feature in their decision to use the program. Contractors said that they now expect comparable levels of service in other financing programs. Therefore, to ensure that contractors not only participate in REEL, but also promote REEL to as many customers as possible, it will be important for REEL to offer features such as rapid approvals, a large and specialized call center, online application and closing processes, contractor proposal tools and project tracking software, and payment within seven days.

If REEL can offer features that HERO does not, this may compensate for some lack of speed or convenience in terms of processing but only if it is a feature that is useful to the contractor. Allowing 30% of funds to cover non-eligible measures is one such benefit. Other features of interest to contractors include progress payments or payment by completed measure, “same as cash” offers, and lower rates and fees than HERO (without sacrificing too much convenience). REEL could also consider offering incentives to contractors for projects that achieve a certain level of savings.

Several contractors reported that they offer utility rebates to their customers, and most of these contractors complete the paperwork and submit it on the customer’s behalf. If REEL and the rebate programs are coordinated such that participating in REEL can result in faster rebate processing, this may be a very attractive feature to contractors—especially for larger, whole-home projects where the rebate is a large percentage of the total project cost.