CHEEF

CALIFORNIA HUB FOR ENERGY EFFICIENCY FINANCING

ENERGY EFFICIENCY FINANCING PILOTS

QUARTERLY REPORT & PROGRAM STATUS SUMMARY

SECOND QUARTER 2019

CALIFORNIA ALTERNATIVE ENERGY AND
ADVANCED TRANSPORTATION FINANCING AUTHORITY
(CAEATFA)

Prepared by
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Advanced Transportation Financing Authority
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The State of California has ambitious goals to reduce greenhouse gas emissions and address climate change

In 2006, the Legislature passed the California Global Warming Solutions Act (Assembly Bill 32), which created a comprehensive, multi-year program to reduce greenhouse gas (GHG) emissions in California. In the subsequent Scoping Plans, intended to describe the approach California will take to reduce GHGs, one of the primary methods identified is increasing efficiency in existing buildings.

With so many headlines about electric vehicles, rooftop solar and other renewables, it's easy to forget how important energy efficiency is to the GHG reduction mix. Billions of square feet of existing commercial and residential properties are currently in need of energy upgrades—both the structures and the appliances inside them.

There is simply not enough government or ratepayer funding to pay for these upgrades.

With this awareness, the California Public Utilities Commission (CPUC) allocated funds to launch several financing pilot programs designed to attract private capital to finance energy efficiency upgrades[1]. In its decision, the CPUC acknowledged that energy efficiency (EE) measures are important tools for addressing greenhouse gas emissions, and that lowering the barriers to energy efficiency retrofits and financing—particularly in underserved market sectors—is critical to reaching the state's goals of reduced energy consumption and spreading benefits to all Californians.

Background

The California Public Utilities Commission Decision 13-09-044 (D. 13-09-044) authorized a series of financing programs designed to attract private capital to finance energy efficiency upgrades and established the California Hub for Energy Efficiency Financing (Hub) to administer the new programs. The CPUC requested the California Alternative Energy and Advanced Transportation Financing Authority (CAEATFA) assume the administration of the Hub and directed the investor owned utilities (IOUs) and CPUC staff to assist CAEATFA with implementation.

A core feature of the new financing programs is to incentivize private finance companies to enter the energy efficiency market and improve terms or expand credit criteria for the financing of energy efficiency projects by providing a credit enhancement funded with IOU energy efficiency ratepayer funds. This credit enhancement helps remove the upfront cost barrier for Californians to undertake energy efficiency retrofits. A key objective is to test whether transitional ratepayer support for credit enhancements can lead to self-supporting energy efficiency finance programs in the future.

In a separate document,[2] the CPUC further clarified the goals under which the financing programs would be evaluated. The financing pilots should be scalable, be leveraged by private capital and able to support energy efficiency upgrades, reach underserved Californians who would not otherwise have participated in EE upgrades, and produce energy savings.

This report is prepared in response to D. 13-09-044, which directs CAEATFA, in conjunction with the IOUs, to issue quarterly reports on the progress of the Hub financing pilots. It contains quarter highlights and other informational items to keep interested parties informed as to program challenges and successes.

[1] Decision 13-09-044

[2] Resolution E-4900, published December 14, 2017

Quarter Highlights — Q2 2019

Small Business Program Limited Launch

The Small Business Energy Efficiency Financing (SBF) program opened for business in April under the terms of a limited launch, with only one method of project approval and a manual submission process. By the end of Q2 three projects had been preapproved, setting the stage for the program's anticipated first official project enrollment in Q3.

Small Business Program Lenders

A third finance company enrolled in the SBF program, offering equipment lease agreements up to $5 million. Meanwhile, contractor recruitment continued, with 12 contractors and four project developers trained and enrolled in the program by the end of Q2.

REEL Growth

The REEL program continued to show steady growth in Q2, enrolling 56 new loans totaling $848,762. By June 30, 2019, 446 loans totaling $7.54 million had been enrolled over the lifetime of the program. The program evaluation process continued, with an impact report from the Evaluation, Measurement and Verification (EM&V) contractor expected in Q3.

REEL Lenders Vie for Lowest Rates

REEL's two statewide lenders, who together lead the program in enrolled loans, took turns reducing interest rates and announcing promotions during Q2. By the end of the quarter, statewide REEL rates were between .25% and 1% lower than at the beginning of the quarter, and qualified borrowers could take advantage of a limited-term 3.9% promotional rate through the end of the year.

Reaching Underserved Borrowers

In keeping with program history, more than half (52%) of REEL loans were made to households in Low-to-Moderate Income (LMI) census tracts and 20% to households in Disadvantaged Communities, as identified by CalEPA's CalEnviroScreen[3] tool.

GoGreen Financing Website Traffic Jumps

GoGreenFinancing.com saw more than 39,000 unique users during Q2, a 60% increase over the previous quarter. Traffic from social media and email campaigns drove the majority of the increase.

Affordable Multifamily Program Regulations Adopted

As anticipated, the CAEATFA board approved the Affordable Multifamily Financing Program emergency regulations during its April meeting. The Office of Administrative Law (OAL) enacted the new regulations on May 9, 2019. CAEATFA staff plans to submit a Re-Adoption of Emergency Regulations to the OAL in October.

[3] https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30 Private lenders may leverage census tract data as a proxy for specific income disclosure. CAEATFA staff tracks project activity under CalEnviroScreen, which is a policy tool that is used by some state agencies to identify environmentally challenged communities. It includes qualities beyond income, including factors such as health indicators and proximity to parks, transit, and freeways. While the two often overlap, they are not identical. For example, a mountain community in northern California could be low-income but not considered disadvantaged under CalEnviroScreen.

REEL customer Juliana Maziarz in front of her Los Angeles home

The Residential Program (REEL)

The Residential Energy Efficiency Loan (REEL) Assistance program provides attractive financing to owners and renters of existing residential properties who select from a broad list of energy efficiency measures intended to reduce energy consumption. Customers may upgrade a single-family home, townhome, condo, duplex, triplex, fourplex or manufactured home. Renovations for up to four units can be bundled into the same loan.

As with all Hub programs, eligibility requires that the property receive electric or natural gas service from at least one of the IOUs: PG&E®, SDG&E®, SCE® or SoCalGas®. Properties in areas served by community choice aggregators (CCAs) or electric service providers (ESPs) qualify. Those in areas served by publicly owned utilities (POUs) qualify only if they also receive energy service from an IOU (for example, electricity from the Sacramento Municipal Utility District and natural gas from PG&E). To be considered for a credit enhancement, however, a measure must use the type of energy that the IOU delivers.

REEL lenders receive a credit enhancement of 11% of the claim eligible amount, or 20% if the borrower is considered underserved. CAEATFA defines underserved borrowers as either:

1. *Low-to-Moderate Income (LMI) Census Tract* – Area Median Income (AMI) of the borrower's census tract does not exceed 120% of the AMI for the Metropolitan Area, County, or State. To make this determination CAEATFA selected the existing geocoding tool administered by the Federal Financial Institutions Examination Council (FFIEC) Geocoding System.[4]
2. *Low-to-Moderate Household Income* – Borrower's household income is at or below the current annual income limits as determined by the California Department of Housing & Community Development and accounting for county of residence and family size.
3. *Credit-Challenged* – A borrower whose credit score is < 640 (if the lender has opted in to the Credit-Challenged facility by demonstrating additional benefits to credit-challenged borrowers).

Data regarding the number of underserved borrowers receiving REEL loans is discussed below.
REEL program regulations can be viewed here.[5]

Progress

In Q2 2019 the REEL program continued a period of maintenance activity from the standpoint of resource allocation. With REEL systems running smoothly, the pilot evaluation period well underway and budget constraints to consider, only minimal resources were provided to the pilot over the course of the quarter. The REEL program nevertheless continued to show strong growth in Q2, enrolling 56 loans totaling $848,762 with an average project size of $15,156. By the end of Q2, REEL had enrolled 446 loans with claim-eligible principal totaling $7.54 million since program inception in July 2016.

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[4] https://geomap.ffiec.gov/FFIECGeocMap/GeocodeMap1.aspx

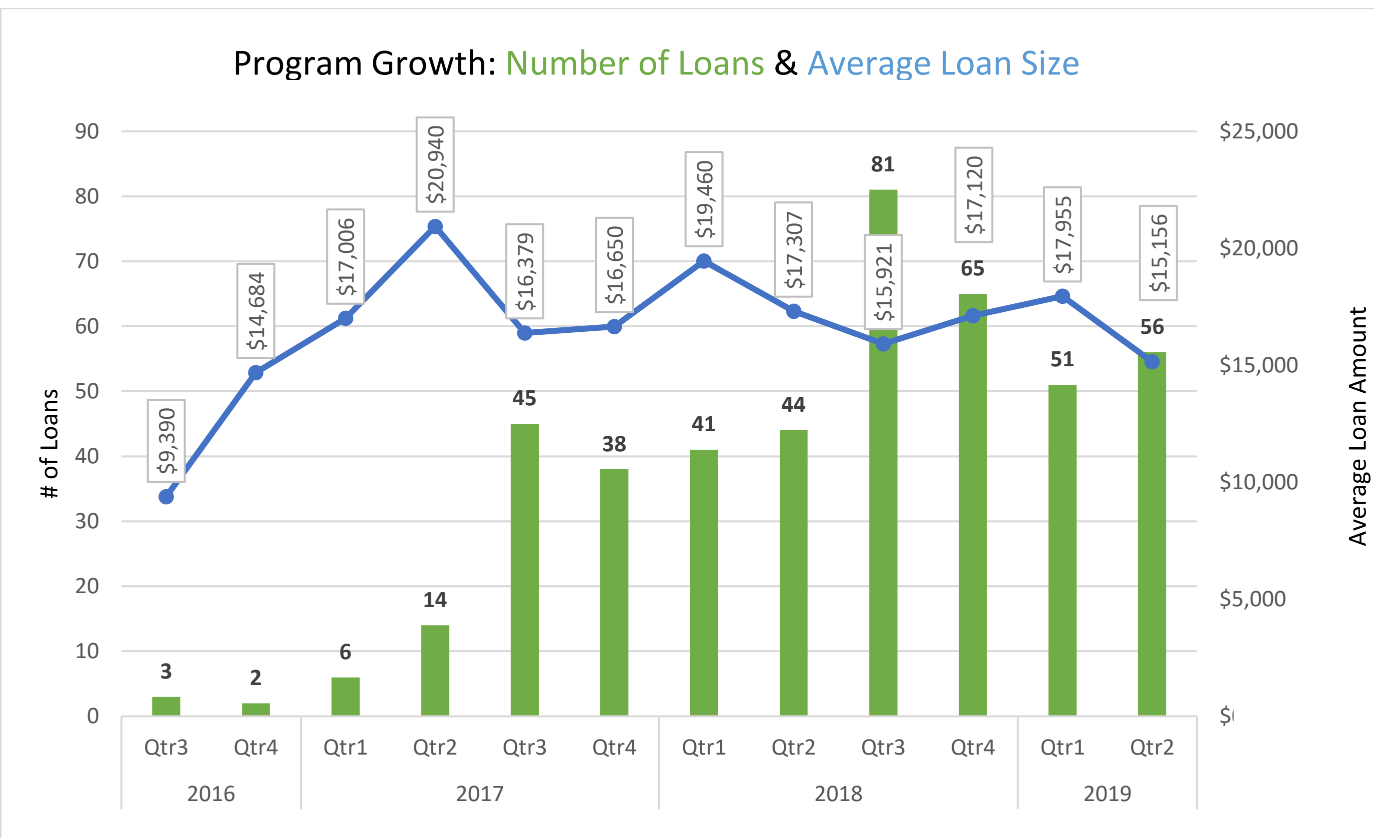
[5] REEL regulations are available online at https://www.treasurer.ca.gov/caeatfa/cheef/reel/regulations/2018/reel-e-regs-9-17-18.pdf

REEL LOANS ENROLLED

The map shows the number of REEL loans enrolled, by county, from the start of the program through the end of Q2 2019. The chart below shows loan growth by quarter and average loan size.

REEL lenders continued to see business from the program, with five of the seven lenders enrolling loans during Q2. A healthy competition developed between the two statewide lenders, Matadors Community Credit Union and California Coast Credit Union, as first one then the other reduced rates and announced promotions, suggesting that the two lenders place a high value on REEL business.

The REEL pilot program evaluation, measurement and verification (EM&V) process continued under the California Public Utilities Commission (CPUC). Begun in Q4 2018 by Opinion Dynamics, Inc., the report is expected to be finalized and incorporated into the CPUC's consideration to extend or modify the pilot.



REEL: Facts and Figures for Q2 2019

341 REEL Participating Contractors

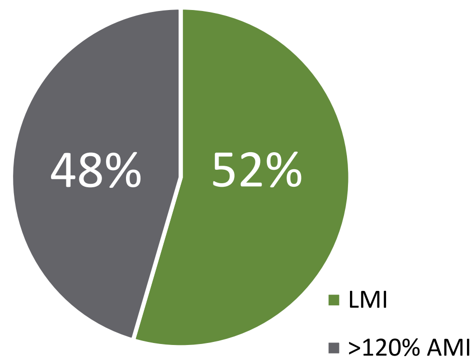
$848,762 REEL Loans Enrolled

$15,156 Average Loan Size

$134,033 Total LLR Contributions

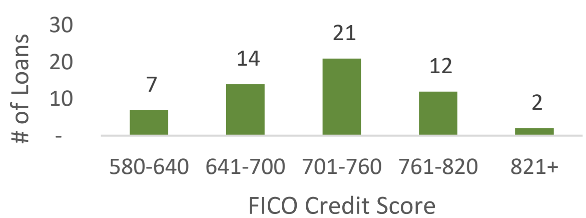
78 Percentage of cases in which borrower made upgrades using REEL only (no rebate or incentive)

Percentage of REEL loans made to borrowers in LMI census tracts

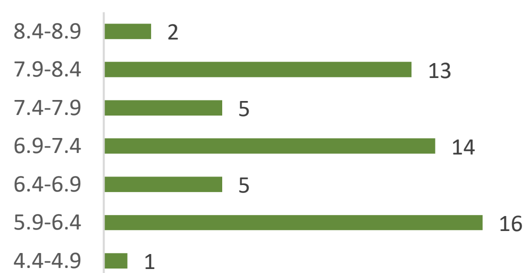


LOW TO MODERATE INCOME (LMI) CENSUS TRACTS ARE DEFINED BY MEDIAN FAMILY INCOME <120% THE AREA MEDIAN INCOME

REEL Borrower Credit Scores



REEL Interest Rates



Top 3 Measure Types Installed During Q2 2019

HVAC (39)

Equipment and ductwork

BUILDING ENVELOPE (35)

Air sealing, insulation, cool roofs, windows, etc.

WATER HEATING (8)

Water heaters and low-flow fixtures

Outreach

Gogreenfinancing.com – Traffic to the consumer-facing website for the Hub programs, which launched in mid-2018, grew significantly in Q2 2019, logging a 60% increase over Q1 traffic. The Q2 total of 39,116 unique visitors to gogreenfinancing.com was greatly aided by partner email and social media campaigns, which together drove nearly 10,000 visitors to the site. The increased traffic resulted in a 40% jump in the number of visitors who contacted lenders through gogreenfinancing.com (2,412, up from 1,721 in Q1).

These figures highlight the value of CAEATFA's partnerships with the IOUs and lenders in a highly competitive media environment. While the REEL marketing implementer, Center for Sustainable Energy (CSE), had been posting to GoGreen Financing's social media channels without gaining significant traction (a typical experience for a new brand running organic/unpaid posts), social media mentions during Q2 by IOUs and lenders had immediate and measurable effects on website traffic. Similarly, email campaigns by IOUs and at least one lender during the quarter led to a quantifiable increase in site visits. These examples demonstrate the power of established brands to influence consumers in today's media landscape and the need for continued marketing support for GoGreen Financing, in particular from the IOUs.

Social Media – Throughout the quarter, CSE made 54 consumer-facing social media posts regarding REEL and GoGreen Financing on Facebook and Twitter.

IOU Customer Outreach – As trusted messengers, the IOUs have the opportunity to reach millions of customers with a single email or direct marketing piece. During Q2, the IOUs marketed REEL through a variety of channels, including social media, email, direct mail, outgoing bill envelopes and in-person events. PG&E and SoCal Gas also marketed REEL to contractors, an important channel partner group.

Additionally, at the end of Q2 CSE finalized REEL customer case studies for use on social media and in digital campaigns by the IOUs, contractor manager and of course by CSE itself in marketing GoGreen Financing.

Contractor Outreach – Frontier Energy, the REEL Contractor Manager, continued its outreach to potential REEL contractors and successfully enrolled 29 new contractors in the program over the course of the quarter. By the end of Q2, borrowers could choose from 341 contractors statewide.

CAEATFA Partner Outreach – CAEATFA staff members attended the 10th annual Statewide Energy Efficiency Collaborative Forum in Long Beach in order to keep abreast of developments in the energy efficiency field and to network with existing and potential program partners across California.

Image from GoGreen Financing digital campaign

The Small Business Energy Efficiency Financing (SBF) Program

The Small Business Financing program (SBF) regulations were approved by the Office of Administrative Law (OAL) and went into effect on Dec. 17, 2018, paving the way for a limited program launch planned for Q2 2019 — which CAEATFA staff achieved — with full program launch expected in Q3/Q4 2019. The SBF program seeks to:

1. Provide a state-backed financing program designed to address the energy efficiency challenges faced by small business owners and tenants
2. Provide accessible and attractive financing options for small businesses
3. Provide a source of financing that allows deep energy retrofits in existing buildings

Financing through the program is available to small businesses, nonprofits and market rate multifamily properties (5 or more units) that meet at least one of the following business size requirements:

- Employ 100 or fewer individuals
- Have annual revenue of less than $15 million
- Meet SBA size classifications (annual revenue limits range from $750,000 to $38.5 million, depending on industry)

SBF is available to both small business property owners and tenants.

To best accommodate the small business energy efficiency market, the program facilitates a variety of financing instruments for potential customers to consider, including loans, equipment leases, service agreements and savings-based payment agreements; each participating finance company offers products from this menu of authorized instruments. Small business owners may take out loans of up to $5 million. Up to $1 million of the financed amount is eligible to receive a credit enhancement for qualifying measures, as follows:

- The first $50,000 of each financing agreement will be credit enhanced at 20%
- The remainder (up to an additional $950,000) will be credit enhanced at 5%
- Maximum loss reserve contribution will be $57,500

As with all Hub programs, eligibility requires that the property receive electric or natural gas service from at least one of the IOUs: PG&E®, SDG&E®, SCE® or SoCalGas®. Properties in areas served by community choice aggregators (CCAs) or electric service providers (ESPs) located within IOU territories qualify. Those in areas served by publicly owned utilities (POUs) qualify only if they also receive energy service from an IOU.

Progress and Outreach

During Q2, CAEATFA staff worked toward the successful limited launch of the SBF program in April while simultaneously preparing for full program launch and fulfilling regulatory obligations. By the end of the quarter, three projects had been preapproved by SBF lenders, setting the stage for the first official project enrollment during Q3, and the SBF program was well on its way to full launch status.

The CAEATFA Board approved the readoption of SBF program emergency regulations with minor modifications on May 21, 2019; the rules went into effect on June 18. The second 90-day readoption will be submitted to the OAL on Sept. 3. Staff also worked behind the scenes during Q2 to prepare for the regular rulemaking process, drafting documents for public posting in Q3.

Recruitment and onboarding of finance companies continued during Q2, with a third finance company enrolling in the program in late May (see below for details). The three finance companies each began developing landing pages, with input from CAEATFA, in preparation for inclusion in the "Find Financing" function on gogreenfinancing.com, scheduled for deployment at full launch.

CAEATFA staff continued to recruit and train contractors and project developers until mid-June. At that point Frontier was functioning as the universal contractor manager for all Hub pilots, and coordination began on the handover of contractor recruitment and training responsibilities for both contractors and project developers. (Recruitment of project developers will remain within CAEATFA's purview in the near term.) Staff developed and completed on-demand training materials for SBF contractors and project developers.

Work also continued on a web-based user interface (UI) that will facilitate easy and efficient project enrollment on a larger scale in SBF under full launch. Efforts focused on functionality, process flow, documents required for certification and enrollment, help text and test scenarios. The interface is being developed by Concord Servicing Corp., the master servicer for Hub programs, with direction from CAEATFA staff. The UI initiative supports the Hub's mandate to build scalable programs. Public deployment of the UI, expected in September, will trigger full program launch.

CAEATFA marketing staff worked on "limited launch" messaging for contractors in the first part of Q2 before switching focus to preparing gogreenfinancing.com for full launch. Working closely with CSE, staff focused on partner messaging on the site as well as "Find Financing" and "Find A Contractor" functionality.

At the end of Q2, three finance companies were enrolled in the SBF program, as well as 12 contractors and four project developers (two of whom were dual-enrolled as contractors). As a result of these successes and other progress in program development, CAEATFA expects to roll out a full launch in Fall 2019, as planned.

Limited Launch vs. Full Launch

During the limited launch of SBF, small business customers with qualifying projects may obtain financing for up to $5 million in energy efficiency retrofits, choosing from products offered by a select group of finance companies. Credit-enhanceable energy saving measures are restricted to a pre-qualified list during this phase. Contractors and project developers submit project information directly to the finance company for manual processing.

By contrast, full program launch will feature more finance companies, contractors and project developers to choose from, as well as additional ways to qualify measures for credit enhancement (for example, through certification by an Association of Energy Engineers Certified Energy Manager). At full launch, contractors and project developers will be able to submit project information to the program using the web-based UI referenced above. As with the limited launch, full launch will allow borrowers with qualifying projects to obtain financing for up to $5 million.

Enrolled Finance Companies

On May 31, Alliance Funding Group (AFG) enrolled in SBF as a participating finance company. AFG is offering equipment lease agreements for amounts between $10,000 and $5 million, with a lease reamortization option after five years. Based in Tustin, Calif., AFG specializes in lease agreements and working capital loans for the construction, healthcare, transportation, government, manufacturing, agriculture and technology sectors and has clients across the U.S. and Canada.

AFG joins Ascentium Capital and DLL as the authorized finance companies of the SBF program. Ascentium and DLL enrolled in the program in Q1 2019.

The table on the next page compares the products offered by the three finance companies.

Table 1. Enrolled SBF Finance Company Features

gogreen FINANCING™

Small Business Financing (SBF) Participating Finance Companies

	ascentium CAPITAL	DLL financial solutions partner	AFG Alliance FUNDING GROUP
	Equipment finance agreements	Loans, leases and service agreements*	Equipment lease agreements
Amount available	$10,000 - $1,500,000	$10,000 - $5,000,000	$10,000 - $5,000,000
Term	12 - 60 months Up to 84 months if required for project cashflow	12 - 84 months Up to 120 months if required for project cashflow	24-60 months for amounts up to $50,000 Up to 120 months for $50,000 or more
Document fees	$195 ($295 if your contractor is prefunding)	$125 ($225 if financing more than $250,000)	$395
WHAT CAN BE FINANCED			
Energy efficiency & demand response	✓	✓	✓
Soft costs	✓	✓	✓
Nonenergy savings measures	✓	✓[X]	✓[X]
Distributed generation & battery storage	✓	✓	
CUSTOMER ELIGIBILITY			
Tenant occupants permitted	✓	✓[T]	✓[TZ]
Minimum months in business	12 months (up to $100,000) Greater amounts require 18+ months in business	18 months	12 months ($300,000 and up) 36-60 months for amounts less than $300,000
FEATURES			
Application only (no financials required)	Up to $250,000	Up to $125,000	Up to $300,000
Fast credit approvals	Within 2 business hours (up to $250,000)	Within 2 business hours (up to $250,000)	24-48 hours (up to $300,000)
Other features	■ Prefunding up to 95% of financed amount for contractors that satisfy a credit check	■ Progress payments or escrow funding for contractors who pass credit checks ■ DLL can bill for and collect regular service and maintenance charges for contractor	■ Prefunding available on a contractor-by-contractor basis ■ Lease reamortization option after 5 years
Contact	Josh Patton (281) 902-1969 joshpatton@ascentiumcapital.com Ascentium.info/GoGreen19	Matt Singer (484) 688-4644 msinger@leasedirect.com	David Goldstein (714) 450-1026 dgoldstein@alliancefunds.com

*Service agreements require a minimum of $50,000 and a 36 month term. [X]Up to 30% of claim-eligible amount. [T]If financing is less than or equal to time remaining on occupancy lease. [Z]Limited to measures not affixed to property.

All financing is subject to credit approval and compliance with the program terms. Rates and terms are subject to change. Please contact the finance company representatives above for up to date information.

GoGreenFinancing.com

07/15/2019

Challenges / Contingencies

Micro lender – Research by the CPUC, IOUs and CAEATFA regarding the energy efficiency financing needs of small business points to the need for "micro" lenders, those who will offer loans of $5,000 or less. On-Bill Financing revolving loan programs offered by the IOUs do not offer loans of less than $5,000, so this is an important niche for SBF to fill. Additionally, the three SBF enrolled lenders have minimum loan amounts of $10,000, necessitating a lender for amounts of less than $10,000. Based on input from the IOUs as well as the Small Business Baseline Study conducted by Opinion Dynamics for the CPUC in the fall of 2017, CAEATFA anticipates that there are many small businesses that will require these smaller financing amounts. CAEATFA intends to start outreach to micro lenders in the upcoming months.

Image from GoGreen Financing digital campaign

The Affordable Multifamily Program

During Q2, CAEATFA staff continued to focus on program design and outreach for the Affordable Multifamily Financing (AMF) program while following the regulatory steps required to establish the program. Staff incorporated feedback from a public workshop held during Q1 and brought the initial emergency regulations package before the CAEATFA Board for consideration on April 16, 2019. The Board approved the emergency regulations, and the OAL enacted them on May 9. Staff expects to submit them for readoption on Oct. 23, 2019 while it undertakes the regular rulemaking process.

Meanwhile, staff continued discussions with prospective AMF lenders, created a finance provider application and program partner checklist, and incorporated AMF data points into the Hub's data dictionary. Because it follows closely behind the rollout of the SBF program, the AMF program is able to leverage several of the processes and resources developed during the design of the SBF program, such as the Energy Saving Measures (ESM) list and the data dictionary. These efficiencies have helped keep CAEATFA on schedule to meet its AMF launch goal of mid-2019 (now refined to Q3).

Program Design

A key efficiency of the AMF program design is integration with existing affordable multifamily housing energy programs, specifically the Low-Income Weatherization Program (LIWP), administered by the State's Department of Community Services and Development, and the Solar On Multifamily Affordable Homes (SOMAH) program, administered by the CPUC via a competitively selected team of non-profit organizations.

LIWP offers a generous incentive to qualifying affordable multifamily properties that install energy efficiency measures, and SOMAH requires the completion of an energy audit before issuing an incentive to install solar. Both programs have detailed processes and procedures already in place to encourage the installation of cost-effective energy efficiency measures, and CAEATFA is working toward integration with both programs to offer its attractive financing for the portion of the measures not incentivized.

Similarly, the AMF program will fund any energy efficiency or demand response measure approved for rebate and incentive by any IOU, REN or CCA, as well as any measure from the aforementioned ESM list.

Key Program Features

- No minimum or maximum financing size
- The first $1 million of each financed project will be credit enhanced at 15% of the claim-eligible amount
- Fixed or variable rates allowed
- No underwriting requirements imposed on the finance company. Underwriting is based on participating financier's requirements

Customer Eligibility

Any affordable multifamily property of 5 units or more, where at least 50% of the units are income restricted at Low-to-Moderate (80% - 120% Area Median Income), is eligible for financing.

Financing Instruments

Similar to SBF, the AMF program intends to support varying financing product types such as loans, leases, service agreements and savings-based payment agreements.

Challenges/Contingencies

The debt stack for deed-restricted affordable multifamily projects is complicated and restrictive; CAEATFA staff has been focused on identifying a financial instrument and program design that will help meet gaps and constraints.

Photo by Allyunion at English Wikipedia

Nonresidential Program

The Nonresidential program is not being actively developed at this time as staff focuses on launching the off-bill programs while on-bill repayment (OBR) is developed. CAEATFA does not expect to develop the Nonresidential program before the end of 2019 – as required by the CPUC – given unanticipated resource challenges.

Like all the financing programs, the Nonresidential program is intended to encourage growth in private market lending, in this case for Class A and public buildings. Though a credit enhancement will not be provided, the program will be designed to provide financing, which will be repaid on the utility bill, for building energy efficiency, distributed generation, battery storage and demand response projects. The flexibility of the program will allow the combination of financing with IOU rebates and other incentives.

In developing the SBF program design and regulations, CAEATFA anticipated how the program would need to be modified to incorporate the Nonresidential program as well as On-Bill Repayment functionality for SBF (see below). While some of the work done to establish the SBF program may be leveraged in the development of the Nonresidential program, as noted above, CAEATFA is not directing resources to this program at this time as it targets the launch of the off-bill versions of SBF and AMF.

On-Bill Repayment (OBR)

Several programs will include OBR as a key feature. CAEATFA staff has been working with the IOUs and the Master Servicer to establish the OBR infrastructure. The CPUC has provided CAEATFA with the ability to offer off-bill repayment for the SBF and AMF programs. CAEATFA continues to work with its Master Servicer to develop OBR and Secure Cash Flow procedures while concurrently launching off-bill versions of the pilots. Test planning between the IOUs and Concord began at the end of Q2, with an eye toward incorporating OBR into the SBF and AMF programs in 2020.

Appendices

Appendix 1: Hub Infrastructure

CAEATFA is creating a statewide platform for finance companies and contractors to participate in the uptake of energy efficiency projects through increased access to financing. As the manager of the Hub, CAEATFA is developing uniform program requirements, standardized documentation and processes, and a central administrative entity to facilitate investment in energy efficiency projects and implementation of the programs.

Key infrastructure elements needed to implement the Hub include a Master Servicer, Trustee Bank, Secure Flow of Funds functionality, Contractor Manager, Data Manager, and Technical Advisors. Below are descriptions of each of these roles and information regarding their current status as it relates to CAEATFA's procurement processes.

Master Servicer

Organization	Concord Servicing Corporation
Duties	The Master Servicer plays a key role in the daily administration of the program(s), accepting loan enrollment applications and processing on-bill repayment transactions.
Contract Term	1/1/18 – 12/31/2019
Notes	Option for a one-year extension.

Trustee Bank

Organization	US Bank
Duties	The Trustee Bank holds the ratepayer funds provided by the IOUs to serve as Credit Enhancements under the various programs. CAEATFA provides direction to the Trustee Bank to transfer CE funds between various accounts.
Contract Term	1/8/18 – 12/31/19
Notes	Option for a one-year extension.

Contractor Manager

Organization	Frontier Energy
Duties	The Contractor Manager recruits, enrolls, trains, supports and manages contractors and conducts quality control oversight of projects not participating in an IOU rebate/incentive program. Following CAEATFA's issuance in Q1 2019 of a Request for Proposals for a universal contractor manager for all pilots, Frontier was awarded the contract in June 2019 and added SBF activities to its existing efforts on behalf of REEL.
Contract Term	6/4/19 – 5/28/21
Notes	Option for a one-year extension.

Data Manager

Organization	TBD
Duties	The Data Manager will receive program data from the Master Servicer and other energy efficiency finance program administrators in order to prepare it for public presentation and use. It will also receive program-related energy savings data from the CPUC. The data will be aggregated and anonymized according to the combined standards and regulatory requirements of the IOUs and capital providers. The RFP for the competitive solicitation for this service has yet to be released while CAEATFA prioritizes its workload to develop and implement the programs. Concurrently, CAEATFA and its agents will continue to collect the appropriate data to ultimately be transmitted to the data manager when it is brought under contract.
Contract Term	TBD
Notes	TBD

Technical Advisors

Technical Advisors provide expertise to CAEATFA in the development and implementation of the Hub programs.

Organization	Energy Futures Group (EFG)
Duties	Provides technical assistance to continue research and development as well as implementation assistance for SBF.
Contract Term	3/13/19 – 3/13/21
Notes	Option for a one-year extension.

Appendix 2: Budget and Staffing Authorization

D.13-09-044 directs the IOUs to allocate a total of $75.2 million to finance the programs over the initial period. Table 2 provides an itemized breakdown of these allocations, current expenditures and remaining balance. As of June 30, 2019, CAEATFA had expended $9,843,138 of the $15.36 million allocated for Hub Administration, Direct Implementation, and Marketing, Education, and Outreach.

CAEATFA will be seeking additional funding for program implementation beyond 2020 to align with the current program implementation timetable.

Table 2: Budget for Hub Expenditures (September 2014 through June 30, 2019)

Item	Allocated	Expended/ Encumbered[6]	Balance
Hub Administration			
Includes start-up costs, Hub administrative, direct implementation, outreach and training to finance companies and contractors, and contracting costs[7]	$ 13,360,000	$ 8,795,974.47	$ 4,564,025.53
Subtotal Hub Administration Costs	**$ 13,360,000**	**$ 8,795,974.47**	**$ 4,564,025.53**
Marketing, Education, Outreach (MEO)			
Statewide MEO plan	$ 8,000,000	(TBD)	$ 8,000,000
CAEATFA outreach and training to finance companies and contractors	$ 2,000,000	$ -[8]	$ 2,000,000
Subtotal Marketing, Education, and Outreach	**$ 10,000,000**	$ -[9]	**$ 10,000,000**
Residential Pilots Credit Enhancement Funds[16]			
Residential Energy Efficiency Loan (REEL)	$ 25,000,000	$ 1,047,163.81	$ 23,952,836.19
Energy Financing Line Item Charge (Funding to PG&E)	$ 1,000,000	(TBD)	$ 1,000,000
Affordable Multifamily	$ 2,900,000	$ -	$ 2,900,000
Subtotal Residential Pilots	**$ 28,900,000**	**$ 1,047,163.81**	**$ 27,852,836.19**
Non-Residential Pilots Credit Enhancement Funds			
Small Business sector with credit enhancement	$ 14,000,000	$ -	$ 14,000,000
Subtotal Non-Residential Pilots	**$ 14,000,000**	**$ -**	**$ 14,000,000**
Information Technology (IT)			
IT Funding to IOUs[10]	$ 8,000,000	*(TBD)*	$ 8,000,000
Subtotal IT Funding to IOUs	**$ 8,000,000**	***(TBD)***	**$ 8,000,000**
Hub Pilot Reserve			
Hub Pilot Reserve[11]	$ 984,931	$ -	$ 984,931
Subtotal Hub Pilot Reserve	**$ 984,931**	**$ -**	**$ 984,931**
GRAND TOTAL	**$ 75,244,931**	**$ 9,843,138.28**	**$ 65,401,792.72**

***Note**: Quarterly expenditures are based on good faith estimates due to a lag in invoice submittals.

[6] "Encumbered" refers to the credit enhancement funds reserved for enrolled loans under the Residential Energy Efficiency Loan (REEL) Loan Loss Reserve (LLR).

[7] Amount of funds allocated to this section includes the additional $8.36 million that was approved by CPUC Rulemaking 13-11-005: Joint Ruling of Assigned Commissioner and Administrative Law Judge on Financing Pilots and Associated Marketing, Education and Outreach Activities issued November 22, 2016.

[8] The expenses expended for this line item have been included in the expended/encumbered value presented in the Hub Administration line item above.

[9] This table is not a comprehensive representation of the budget. It does not reflect CSE's expenditures related to ME&O, the IOUs' expenditures and additional allocations for IT and administration, or other non-CAEATFA costs.

[10] IT funding to IOUs reports only the initial allocation and does not reflect current IOU expenditures.

[11] This amount reflects the remaining balance after the release of funds that was approved by CPUC Rulemaking 13-11-005: Joint Ruling of Assigned Commissioner and Administrative Law Judge on Financing Pilots and Associated Marketing, Education and Outreach Activities issued November 22, 2016.

[16] Actual credit enhancement dollars available less funds for operations setup by IOUs.

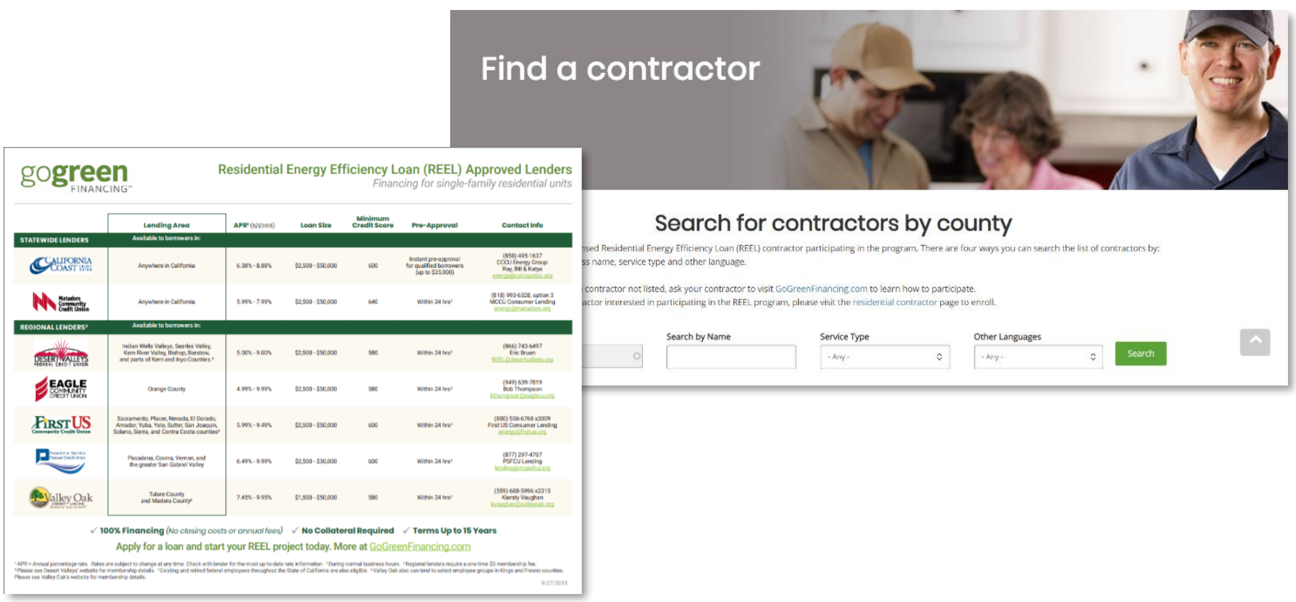
Appendix 3: Customer-Facing Products

Customer-facing products are discussed throughout this report, but this Appendix functions as a summary.

Designed and implemented by the Hub program marketing implementer, the Center for Sustainable Energy (CSE), with input and direction from CAEATFA and the IOUs, GoGreen Financing (www.gogreenfinancing.com) serves as the primary customer-facing website for the financing programs.

GoGreen Financing contains information for end users (customers), contractors, finance companies and partners for each of the programs. Some of the resources on the website include:

- Pages that allow potential REEL borrowers to find a local REEL participating contractor, review the rates of participating lenders and apply for a REEL loan online through the participating lender's website
- Program descriptions and benefits for the upcoming SBF, AMF and Nonresidential programs
- Partner resources for contractors, finance companies, local governments and nonprofits (some of which are available to these organizations to co-brand), including:
  - A customer-facing REEL flyer, available in both English and Spanish
  - Social media ads / Facebook / Twitter
  - Emails and direct mail templates
  - PowerPoint Presentations
  - Partner talking points
  - REEL case studies



Appendix 4: Account Beginning and Ending Balances

IOU HOLDING ACCOUNTS

Funds from the IOU holding accounts were originally transferred to IOU-specific REEL program accounts. After the consolidation of REEL accounts took place in December 2017, funds were transferred to the new, statewide REEL Program account.

The IOU holding accounts continue to earn a (very) small amount of interest each quarter, as shown below:

Table 3. Interest Earned on IOU Holding Accounts

	SCG	PGE	SCE	SDG&E
04/01/2019	$700.59	$699.97	$695.11	$693.55
06/30/2019	$736.07	$727.23	$722.36	$729.03

REEL RELATED ACCOUNTS

The *REEL Program* account holds a portion of the IOU ratepayer funds, used to pay the LLR each time a loan is enrolled. The IOUs hold additional funds budgeted for the REEL program, and those funds are available to be deposited to this account when needed.

The *REEL Reservation* account holds funds set aside in the event a loan is pre-approved.

The *REEL Interest* account accrues the interest from the following accounts: REEL Program, REEL Reservation and all seven REEL Lender LLR accounts.

Table 4: Balance of REEL Accounts

	REEL Program	REEL Reservation	REEL Interest
04/01/2019	$484,772.38	$2,096.38	$3,284.66
Funds recaptured from the Reservation Account	$2,096.38	($2,096.38)	$0.00
Additional Credit Enhancement (CE) Funds from the IOUs	$0.00	$0.00	$0.00
Credit Enhancement (CE) Contributions	($134,032.81)	$0.00	$0.00
06/30/2019	$352,835.95	$0.00	$4,264.96

REEL LENDER LOAN LOSS RESERVE ACCOUNTS

Each time a lender enrolls a loan, the 11% or 20% LLR is paid from the "REEL Program" account into the lender's Loan Loss Reserve Account. The ending balance on Table 5 shows the amount the lender has available to help offset a default should it have a claim.

There were two claims during Q2 totaling $55,119.75.

Table 5: Balance of Lender Loan Loss Reserve Accounts

	California Coast	Matadors Community	Valley Oak	Desert Valleys	Eagle Community	Pasadena Svc Federal	First U.S. Community
04/01/2019	$493,315.26	$286,174.97	$12,628.31	$34,209.02	$24,501.15	$1,905.09	$21,563.01
Recaptured funds from paid-off loans	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Claims	($55,119.75)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Credit Enhancement Contributions	$33,895.98	$77,890.83	$9,246	$0.00	$3,000.00	$0.00	$10,000.00
06/30/2019	$472,091.49	$364,065.80	$21,874.31	$34,209.02	$27,501.15	$1,905.09	$31,563.01

Rebalance of Accounts

D. 13-09-44 directs CAEATFA to recapture funds periodically when loans are paid off, and D. 17-03-026 gives CAEATFA the ability to true up its credit enhancement funds at its discretion. CAEATFA has chosen to do the recapture through an annual rebalancing. The rebalance will occur annually in July for the previous fiscal year running July 1-June 30. The original CE funds will be transferred from the Lenders Loss Reserve Account back to the Program Account. Rebalancing of the CE funds allows us to develop a sustainable program. The first rebalance of all LLR accounts, covering enrolled loans from July 2016 to June 30, 2018, took place in September 2018. Two lenders enrolled in our program had their accounts rebalanced due to having paid off loans.

Appendix 5: Residential Program Participating Lender Overview

There are currently seven lenders offering REEL loans. A brief introduction to the lenders is included in this section. They are listed in order of entrance to the program.

Valley Oak Credit Union was the first credit union to join as a REEL lender, submitting its application in June 2015—nearly a year before the residential program started. Valley Oak has 7,300 members and serves Tulare and Madera counties.

Valley Oak is a Low-Income Designated credit union[12] and serves borrowers with credit scores starting at 580. Over the life of the program Valley Oak has enrolled 11 loans, with five enrolled loans in Q2 2019.

Matadors Community Credit Union is one of two statewide REEL lenders, meaning that it can offer loans to eligible customers anywhere in the state. Matadors has nearly 20,000 members and became a REEL lender in March 2016.

Matadors offers loans to borrowers with credit scores starting at 580. In June it reduced its interest rates. It enrolled 32 REEL loans during Q2 for a total of 142 loans since the program began.

Desert Valleys has just over 4,000 members and serves customers in portions of Kern, Inyo, and San Bernardino counties. It is a Low-Income Designated credit union and has been a REEL lender since August 2016.

Desert Valleys serves borrowers with credit scores starting at 580. Desert Valleys enrolled no loans during Q2 and a total of 14 loans since the program began.

California Coast Credit Union is the second of two REEL statewide lenders. Joining the REEL program in September 2016, "Cal Coast" has over 173,000 members.

Cal Coast serves borrowers with credit scores starting at 600. In May it reduced interest rates and announced a 90th Anniversary Promotion featuring REEL rates of 3.90% - 5.90% for loans of $2,500 to $9,000 with a 27-month payback. During Q2, it enrolled 17 loans for a total of 258 loans since becoming a REEL lender.

Eagle Community Credit Union serves Orange County residents. Eagle has just over 20,000 members. Eagle opted in to the Credit-Challenged facility by demonstrating additional benefits to credit-challenged borrowers, a new opportunity made available in September 2018 when the REEL regulations were modified. As a result, Eagle and other REEL lenders who opt in to the Credit-Challenged program receive the 20% credit enhancement for lending to borrowers with credit scores of less than 640.

Under the REEL program, Eagle serves borrowers with credit scores starting at 580. It enrolled one loan in Q2 2019 for a total of eight in the program.

[12] A designation made by the National Credit Union Administration. A federal credit union can receive a Low-Income Designation (LID) when a majority of its membership qualify as Low-Income Members.

As the name implies, Pasadena Service Federal Credit Union serves members in and around the City of Pasadena as well as federal employees statewide. With over 11,000 members, Pasadena Service Federal is a REEL credit union with a Low-Income Designation.

Pasadena opted in to the REEL Credit-Challenged facility and accepts applications from customers with credit scores starting at 600. Pasadena enrolled its first loan in Q3 2018, and at the end of Q2 has one loan enrolled with the program.

First U.S. Community Credit Union was the most recent REEL lender to join the program, submitting its initial lender application in June 2018. First U.S. serves 12 Northern California counties: Sacramento, Placer, Nevada, El Dorado, Amador, Yuba, Yolo, Sutter, San Joaquin, Solano, Sierra and Contra Costa.

Serving 25,000 members, First U.S. opted in to the REEL Credit-Challenged facility and considers borrowers with credit scores starting at 600. First U.S. enrolled one loan in Q2 for a total of 12 in the program.

Appendix 6: The Impact of the Credit Enhancement

The Credit Enhancement mitigates risk for lenders, yielding better loan terms for REEL customers and encouraging more energy efficiency lending that will help California achieve its greenhouse gas reduction goals

Based on CAEATFA's agreements with REEL lenders, the credit enhancement has resulted in better terms and approval rates for REEL customers. When interested financial institutions submit an application to become a lender, CAEATFA asks them to describe their most similar loan product (typically an unsecured personal loan) and to describe their current interest rate, minimum credit scores, maximum loan amounts and maximum terms for these loans. With this information, CAEATFA is able to ensure that the final and approved REEL product has appropriate benefits for borrowers.

Because lenders are free to set their own underwriting criteria within the program guidelines, individual products vary from lender to lender. The table below gives some highlights of changes that resulted as a result of the credit enhancement. When a range is stated below, it generally ties back to the borrower's credit score.

Improvements:	California Coast	Matadors Community Credit Union	Valley Oak Credit Union	Desert Valleys Federal Credit Union	Eagle Community Credit Union	FirstUS Community Credit Union	Pasadena Service Federal Credit Union
	STATEWIDE LENDERS		REGIONAL LENDERS				
Interest Rate	Reduction ranged from 598 – 1298 bps[13]	Reduction ranged from 416 – 466 bps	Reduction ranged from 164 - 614 bps	Reduction ranged from 849 – 900 bps	Reduction ranged from 675 – 975 bps	Reduction ranged from 350 – 700 bps	Reduction ranged from 300 – 600 bps
Minimum Credit Score	No change from existing 600	Reduced from 660 to 580	No change from existing 580[14]	No change from existing 580[15]	No change from existing 580[15]	Reduced from 640 to 600	Reduced from 640 to 600
Maximum Loan Amount	Increased from $20,000 to $50,000	Increased from $15,000 to $50,000	Increased from $20,000 to $50,000	Increased from $2,500 to $50,000	Increased from $25,000 to $50,000	Increased from $25,000 to $50,000	Increased from $20,000 to $30,000
Maximum Loan Term	Increased from 5 years up to 15	Increased from 5 years up to 15	Increased from 5 years up to 15	Increased from 5 years up to 15	Increased from 5 years up to 15	Increased from 5.5 years up to 15	Increased from 5 years up to 15

[13] bps = Basis point, a common unit of measure for interest rates. A single basis point is equal to 1/100th of 1%, so 100 bps = 1%

[14] 580 is the REEL program minimum

The provision of a credit enhancement is at the heart of the Hub's financing program design. As the table on the previous page shows, REEL lenders have made improvements to their existing underwriting criteria as a result of the loan loss reserve that significantly benefit potential borrowers. But to put these changes in perspective, it's important to be reminded of the lending landscape in the *absence* of a program like REEL, and to see how the credit enhancement helps achieve the goals for the financing programs.

Interest Rates *without* REEL

Though lenders traditionally look at a number of factors when determining if an applicant will receive a loan, and—if so—what rate they will pay, a borrower's credit score is one of the largest factors in determining the annual percentage rate for a personal loan. In general, the higher one's credit score, the lower the rate.

Nationwide Average APR for Personal Loans, 2018[15]

Rating	Credit Score	Average Unsecured Personal Loan APR
Poor	300 – 639	28.5% - 32.0%
Average	640 – 679	17.8% 19.9%
Good	680 - 719	13.5% - 15.5%
Excellent	720 – 850	10.3% - 12.5%

The data in the chart at left comes from a finance website that conducts in-depth research and analysis on a variety of financial topics, in this case, the average 2018 annual percentage rate for unsecured personal loans (where property is not used as collateral).

Note the impact a borrower's credit score has on the interest rate paid, with rates ranging from 10.3% to as high as 32%.

Now consider that REEL Q2 interest rates range from 4.99% to a high of 9.99%[16], and that several REEL lenders accept applications from borrowers with credit scores as low as 580.

How the Credit Enhancement Helps Achieve Program Goals

The Credit Enhancement is more than just a financial mechanism. For Hub programs, it means the difference between achieving program goals—increasing the availability of lower-cost financing for energy investments throughout California, including for underserved borrowers—or not. Consider these potential outcomes for a borrower wishing to access $25,000 to upgrade their home's energy efficiency.

BORROWER WITH . . .	Without REEL	With REEL
…a lower credit score of 600	Borrower would be unlikely to qualify for a personal loan. **No program goals achieved.**	Borrower may qualify for a REEL loan for a term of 10 or 15 years, paying 9.99% or less. **PROGRAM GOALS ACHIEVED!**
…a higher credit score of 700	Borrower could likely take out a personal loan, paying the nationwide average of 13.5%. Since lenders seldom make unsecured personal loans for longer than 5 years, the resulting payment on a $25,000 loan would be $575. Borrower may not be able to afford the high monthly payment. **No program goals achieved.**	Borrower could likely take out the necessary REEL loan, paying the REEL average 7% interest for 15 years. The resulting monthly payment would be a manageable $225. **PROGRAM GOALS ACHIEVED!**

15 https://www.valuepenguin.com/personal-loans/average-personal-loan-interest-rates#by-credit-score

16 REEL interest rates are capped at the rate on new 10-year Treasury bonds plus seven hundred and fifty (750) basis points