CHEEF
CALIFORNIA HUB FOR ENERGY EFFICIENCY FINANCING

ENERGY EFFICIENCY FINANCING PILOTS

QUARTERLY REPORT & PROGRAM STATUS SUMMARY

THIRD QUARTER 2019

CALIFORNIA ALTERNATIVE ENERGY AND
ADVANCED TRANSPORTATION FINANCING AUTHORITY
(CAEATFA)

Prepared by
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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 that 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. These reports contain quarter highlights and other informational items to keep interested parties informed as to the programs' challenges and successes.

The Hub currently administers energy efficiency financing programs in three market sectors: residential, small business, and affordable multifamily. The Residential Energy Efficiency Loan (REEL) Assistance Program launched in 2016, and the Small Business Energy Efficiency Financing (SBF) Program and the Affordable Multifamily Energy Efficiency Financing (AMF) Program launched in 2019. These three pilots, under the authority of the CPUC and in coordination with the IOUs, support energy efficiency upgrades across California.

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[1] Decision 13-09-044

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

Quarter Highlights — Q3 2019

Small Business Program Enters Full Launch Phase

Five months into its limited launch, the Small Business Financing (SBF) Program entered full launch mode in September with the unveiling of the Project Platform and customer-facing content on GoGreenFinancing.com. The Project Platform, also referred to as the "web-based user interface," lets finance companies and contractors quickly and easily enroll SBF projects and is considered key to program scalability.

Small Business Program Enrolls First Project

The SBF program enrolled its first project on July 30, formally initiating the two-year pilot phase of the program. The inaugural project, a $214,000 lighting and well pump retrofit for a Central Valley dairy, was followed by a second project enrollment in September, $52,000 lighting and HVAC project for a manufacturer in the Central Valley. The quarter closed with two enrollments and one preapproval.

Small Business Program Contractor Recruitment Continues

Contractor and Project Developer recruitment into the SBF Program continued during Q3, with 26 Contractors and nine Project Developers trained and enrolled in the program by September 30. These efforts were supported by Frontier Energy, the Contractor Manager.

Affordable Multifamily Program Enrolls First Finance Company

The Affordable Multifamily Financing (AMF) Program enrolled its first Finance Company on August 21. Renew Energy Partners is offering energy service agreements of up to $10 million for AMF customers. The enrollment of a Finance Company means the program is now open for business.

REEL Logs Highest Volume Quarter

The REEL Program had its highest volume quarter to date in Q3, enrolling 93 new loans totaling $1,563,065. By September 30, 539 loans totaling $9.1 million had been enrolled over the lifetime of the program. The program evaluation process continued, with an impact report expected from the CPUC's Evaluation, Measurement and Verification (EM&V) Contractor in Q4.

REEL Reaches Underserved Borrowers

During Q3, 51% of REEL loans were made to households in Low-to-Moderate Income (LMI) census tracts and 17% to households in Disadvantaged Communities, as identified by CalEPA's CalEnviroScreen tool.[3]

GoGreen Financing Website Traffic Jumps

GoGreenFinancing.com saw more than 69,000 unique users during Q3, a 76% increase over the previous quarter. Traffic from social and digital media campaigns drove the majority of the increase.

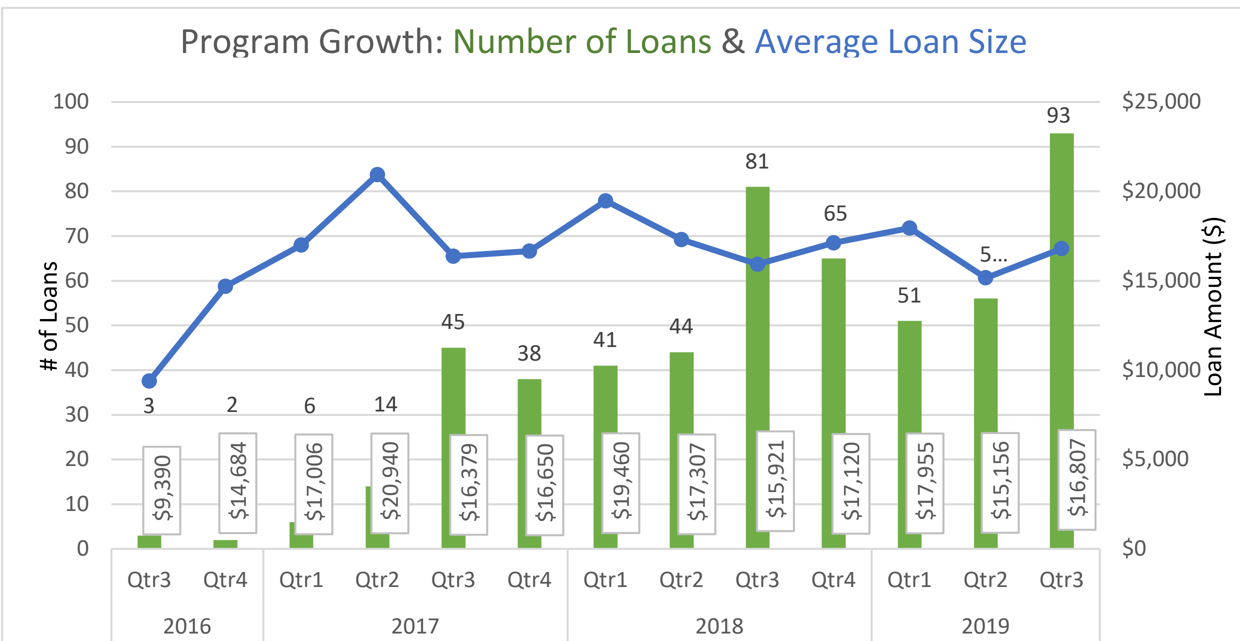
[3] CAEATFA tracks the number of projects completed in LMI census tracts. CAEATFA also tracks project activity under CalEnviroScreen, a policy tool used by some state agencies to identify pollution-burdened communities. It includes qualities beyond income, including factors such as health indicators and proximity to parks, transit, and freeways. While the two categories 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 Energy Efficiency Loan (REEL) Assistance Program

Progress

In Q3 2019, the REEL Program logged its highest volume quarter to date in both number and dollar amount of loans. Historically, the third quarter has produced the highest number of annual enrollments, and Q3 2019 represented an increase from similarly busy quarters. Despite the limited resources allocated to the REEL Program while development focus was placed on the SBF and AMF Programs, REEL continued to grow, enrolling 93 loans totaling $1,563,065 with an average project size of $16,807. By the end of Q3, REEL had enrolled 539 loans with claim-eligible principal totaling $9.1 million since program inception in July 2016. The chart below shows REEL program growth and average loan size since program inception.



REEL lenders continued to see business from the program, with five of the seven lenders enrolling loans during Q3 (details in Appendix 6). Consistent with program history, more than half (51%) of loans were made to households in Low-to-Moderate Income census tracts during Q3, with 17% of loans going to borrowers in Disadvantaged Communities as defined by CalEnviroScreen, which measures pollution burden.

The REEL pilot program evaluation, measurement and verification (EM&V) process continued under the authority of the California Public Utilities Commission (CPUC). Begun in Q4 2018 by Opinion Dynamics Corporation, the report is expected to be finalized in Q4 2019 and incorporated into the CPUC's consideration to extend or modify the pilot.

For information about REEL program structure and eligibility, see Appendix 1.

REEL Loans Enrolled Map

The map shows the number of REEL loans enrolled, by county, from the start of the program through the end of Q3 2019.

REEL: Facts and Figures for Q3 2019

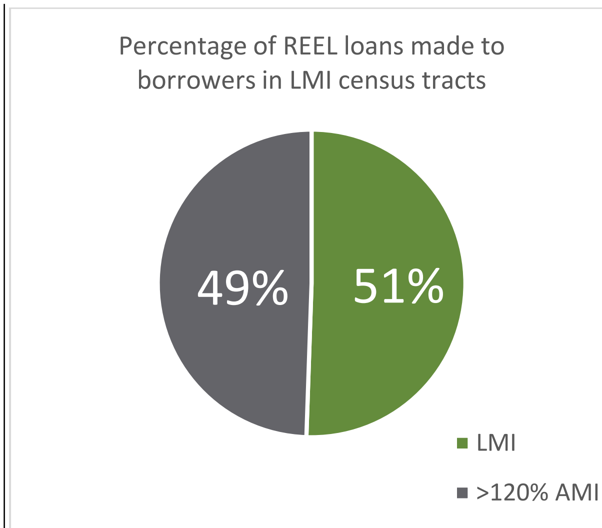
362 REEL Participating Contractors

$1,563,065 In REEL Loans Enrolled

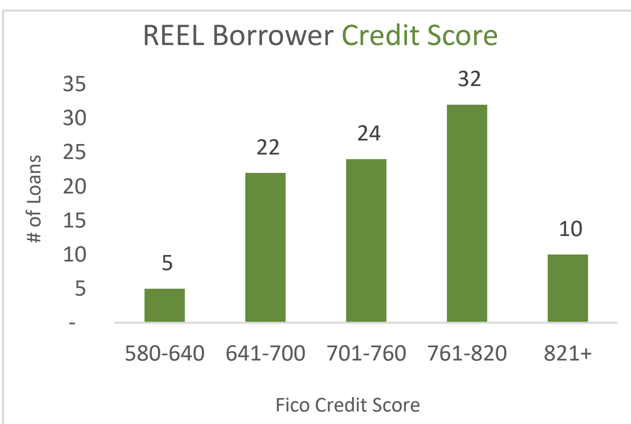
$16,807 Average Loan Size

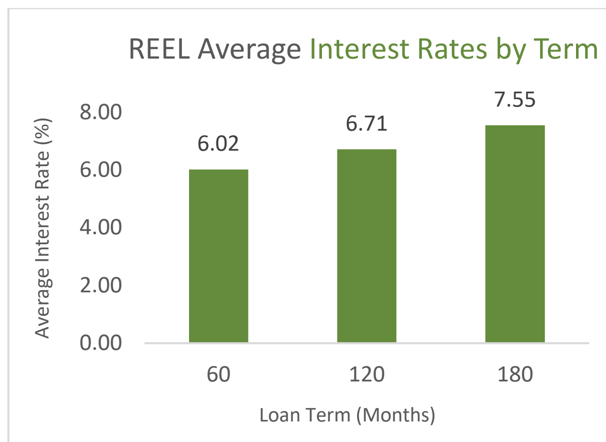
$248,197 Total LLR Contributions

92% Finance-Only Projects (cases in which borrower made upgrades using REEL without a rebate or incentive)



Low-to-Moderate Income (LMI) census tracts are those with median family incomes <120% of Area Median Income.





Top 3 Measure Types Installed During Q3 2019

HVAC: 54

Equipment and ductwork

BUILDING ENVELOPE: 51

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

WATER HEATING: 3

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 for the second quarter in a row, increasing 76% over Q2 traffic. The Q3 total of 69,057 unique visitors to GoGreenFinancing.com resulted in 2,053 inquiries to REEL lenders from the website. Traffic was particularly strong in September, likely owing to the launch of successful digital and social media campaigns by the IOUs and the program's marketing implementer, Center for Sustainable Energy (CSE).

Traffic may also have benefitted from a billboard campaign organized by CSE during Q3 at the direction of the IOUs and CAEATFA. The eight billboards, located throughout the Central Valley and Southern California, made 11 million combined impressions with a message to visit GoGreenFinancing.com.

IOU Customer Outreach – As trusted messengers, the IOUs have the opportunity to reach millions of customers via several marketing channels, including email newsletters and printed mail. During Q3, the IOUs marketed REEL through a variety of these channels, using digital ad campaigns, social media, email, bill inserts, outgoing bill envelopes and in-person events to promote the program to potential customers.

Contractor Outreach – Frontier Energy, the Contractor Manager, continued its outreach to potential REEL Contractors via several channels, including email newsletters. A total of 21 new contractors successfully enrolled in the program over the course of the quarter. By September 30, borrowers could choose from 362 contractors statewide.

SoCal Gas and PG&E also marketed REEL to their Home Upgrade contractors via email.

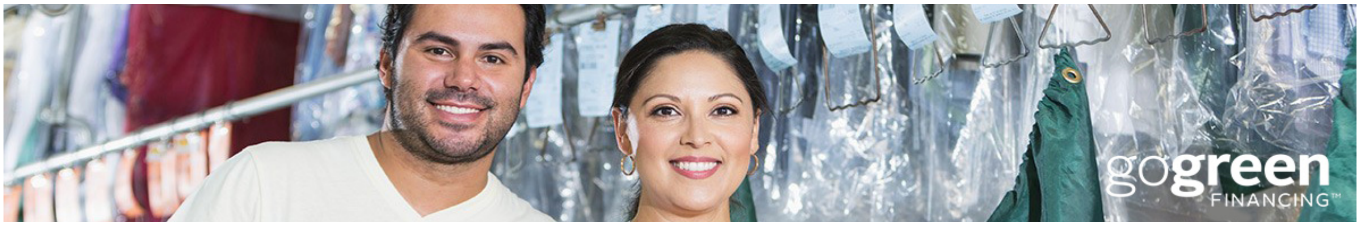


Image from GoGreen Financing digital campaign

The Small Business Energy Efficiency Financing Program

Progress

Following a limited launch in Q2 2019, the Small Business Financing Program (SBF) began operating at full capacity in Q3. By September 30, the fully launched SBF program had recruited over 30 Contractors, enrolled three Finance Companies and enrolled two energy efficiency projects.

SBF enrolled its first project on July 30. The inaugural project, financed at $214,000, included lighting retrofits and installation of multiple variable frequency drive well pumps, and was initiated by a dairy farm in the Central Valley. This project was quickly followed by a second, a $52,000 lighting and HVAC project for a manufacturer in the Central Valley, that was completed and enrolled by quarter's end. Both projects were financed by De Lage Landen Financial Services, Inc. (DLL). A third project, financed by Ascentium Capital, LLC, had been preapproved, with construction underway as the quarter closed.

Triggering "full launch" status for the SBF Program were the late September release of the Project Platform and the simultaneous unveiling of new customer-facing content on GoGreenFinancing.com (details below). Full launch of the Program means that participants can take advantage of any of the three pathways to qualify projects for the program: a pre-qualified measure list, professional certification that measures save energy, or approval as part of an IOU custom incentive program. The Project Platform is designed to facilitate easy and efficient project enrollment for Finance Companies and Contractors. Participants are able to confirm the value of credit enhancements for particular projects, convey financing and project status to one another, enroll projects when complete, and more. In partnership with Concord Servicing Corp., the Master Servicer for the Hub, CAEATFA staff will continue to direct the development of the Project Platform and aim to introduce new functions in Q4, including reporting options for program stakeholders.

CAEATFA staff also embarked upon the regular rulemaking process for the SBF Program, submitting a Notice of Proposed Rulemaking and Initial Statement of Reasons (ISOR) to the Office of Administrative Law. Publication of the Notice and ISOR on August 23 marked the start of a 45-day public comment period.

For information about SBF program structure and eligibility, see Appendix 1.

Outreach

During Q3, CAEATFA staff worked with CSE to retool the SBF section of GoGreenFinancing.com to include a landing page tailored to small business owners and nonprofits exploring energy efficiency retrofits for their organizations. The updated website allows prospective customers to find finance companies, contractors and project developers, any of whom can guide the customer through the process. The website's new content went live on September 26, concurrent with the release of the Project Platform.

September 26 also marked the date of the first SBF newsletter sent by the Contractor Manager, Frontier Energy, to prospective and enrolled Contractors and Project Developers. Frontier worked throughout Q3 to recruit Contractors to the program; by September 30, SBF customers could choose from 26 Contractors and nine Project Developers. Additionally, customers can prompt their Contractor or Project Developer to enroll in the Program.

In the coming months and throughout 2020, CAEATFA and the IOUs will collaborate to foster further growth and integration of the SBF Program within the IOUs' networks, including their Trade Pro programs. Under leadership from CAEATFA and the IOUs, both Frontier Energy and CSE have committed resources towards SBF marketing, education and outreach in 2020 that will support Contractor and project enrollment, resources for enrolled Contractors, and statewide outreach. CAEATFA has led efforts to recruit Project Developers and engage with third-party implementers of IOU energy efficiency programs.

CAEATFA also plans to continue its outreach to Finance Companies. Through the three participating Finance Companies, the SBF Program currently offers traditional loans, leases, and energy service agreements (structured as a lease with an ongoing maintenance option). Staff believes microloans and a savings-based payment agreement are necessary additions to the SBF Program menu of financing products.

Table 1. Enrolled SBF Finance Company Features

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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

Microlending – Research by the CPUC, IOUs and CAEATFA regarding the energy efficiency financing needs of California's small businesses 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. Furthermore, the three enrolled SBF lenders have minimum loan amounts of $10,000, necessitating a lender for amounts of less than $10,000. CAEATFA intends to start outreach to micro lenders in the upcoming months.

Image from GoGreen Financing digital campaign

The Affordable Multifamily Energy Efficiency Financing Program

Progress and Outreach

On Aug. 21, 2019, the Affordable Multifamily Financing (AMF) Program enrolled its first Finance Company, Renew Energy Partners (Renew). Renew offers AMF customers Savings-Based Payment Agreements in amounts ranging from $250,000 to $10 million, with terms of up to 10 years.

With emergency regulations in place and a Finance Company enrolled, CAEATFA staff spent the remainder of Q3 conducting outreach within the AMF industry and facilitating introductions between Renew and interested parties, including a Northern California-based nonprofit housing trust in need of multi-property energy efficiency retrofits. Staff also continued developing and refining AMF program training materials and internal procedures.

Additionally, staff presented the AMF Program at the San Joaquin Valley Affordable Housing Summit in Visalia and attended the 40th Annual Non-profit Housing Association Affordable Housing Conference in San Francisco. These conferences provided valuable opportunities to network with potential customers and program partners such as Finance Companies, community-based organizations and utility program implementers.

The AMF Program is currently operating under emergency regulations. CAEATFA staff plans to undertake the regular rulemaking process in Q1 2020.

For information about AMF program structure and eligibility, see Appendix 1.

Challenges / Contingencies

Because the debt stack for deed-restricted affordable multifamily projects is complex and restrictive, and because of the potential expense involved with energy efficiency retrofits to large multifamily properties, CAEATFA staff is anticipating long project approval and completion timelines for this Program. Staff also believes a traditional unsecured lease product is an important component of this Program and is working to recruit a Finance Company that will provide those leases.

Photo by Allyunion at English Wikipedia

Nonresidential Program

The Nonresidential Program is not being actively developed at this time. Launch of the Nonresidential Program is dependent upon the development of on-bill repayment (OBR). Since CPUC Decision 17-03-026 requires all pilots to be launched by the end of 2019, and as OBR will not be completed until 2020, CAEATFA staff chose to direct resources to the SBF and AMF Programs during 2019.

In the event that CAEATFA is authorized to develop the Nonresidential Program in the future, prior work can be leveraged. While developing the SBF Program design and regulations, CAEATFA anticipated how the Nonresidential Program would be incorporated into the Hub's offerings.

On-Bill Repayment (OBR)

On-Bill Repayment (OBR) functionality, whereby a borrower repays energy efficiency financing through his or her utility bill, is viewed by the CPUC as a critical component of the Hub programs, as it has the potential to both encourage program uptake and reduce default rates. Several Hub Programs — including SBF, AMF and the Nonresidential Program, should it be developed — will include OBR as a key feature.

CAEATFA staff has been working with the IOUs and the Master Servicer to establish an OBR infrastructure that guarantees the secure flow of funds between accounts and accurate transmission of corresponding data. This is a highly complex task that requires close coordination with the IOUs, since each utility has a unique billing architecture and security protocols. During Q3, regression testing began with the IOUs to ensure that the OBR-related software coding successfully interacts with each IOU's established processes. CAEATFA staff expects to launch OBR in mid-2020.

Appendices

Appendix 1: Program Structures and Eligibility Requirements

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). For financing to be considered "claim-eligible" in the case of a default, 70% of that financing must be used to fund the installation of measures that 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 those who meet at least one of the following criteria:

> *Residence in a 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]
>
> *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.
>
> *Credit-Challenged* – A borrower whose credit score is less than 640 (if the lender has opted in to the Credit-Challenged facility by demonstrating additional benefits to credit-challenged borrowers).

REEL Program regulations may be viewed on the CAEATFA website.

SBF Program

The Small Business Energy Efficiency Financing (SBF) Program regulations were approved by the Office of Administrative Law (OAL) and went into effect on Dec. 17, 2018. 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:

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

- 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 claim-eligible financing 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.

There are three methods of project qualification for the SBF Program:

1. The Program has published a searchable and downloadable list of pre-qualified energy saving measures (ESMs). Measures on the ESM list can be financed without any additional approval.
2. Any measure approved by an IOU, REN, or CCA custom incentive program for the property within the last 24 months is eligible.
3. For any measures that are not listed on the ESM list or tied to a custom incentive program, an Energy Professional can certify that the installation of the measure will result in energy savings compared to existing conditions. For the SBF Program, an eligible Energy Professional is a California licensed Professional Engineer (PE) or an Association of Energy Engineers Certified Energy Manager (CEM).

SBF program regulations may be viewed via the CAEATFA SBF Regulations page.

AMF Program

The Affordable Multifamily Financing (AMF) Program emergency regulations were approved by the CAEATFA Board on April 16, 2019 and enacted on May 9, 2019. CAEATFA staff expects to submit the emergency regulations for readoption on October 23, 2019 while it undertakes the regular rulemaking process.

The Affordable Multifamily Energy Efficiency (AMF) Program seeks to facilitate energy efficiency retrofits in multifamily properties of five or more units where at least 50% of the units are income-restricted at low to moderate (80-120% of area median income). To be eligible, properties must remain affordable for at least five years.

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 Energy Saving Measures list developed for use in the SBF Program. In-unit as well as common area measures are eligible. Up to 30% of the financed amount may fund non-energy efficiency improvements; solar photovoltaic and distributed generation may be financed but will not receive a credit enhancement.

Key AMF 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 Finance Company requirements
- Designed to integrate with existing affordable multifamily housing energy programs such as the Low-Income Weatherization Program (LIWP) and Solar On Multifamily Affordable Homes (SOMAH)

Like the SBF Program, the AMF Program supports traditional loans and leases as well as innovative financing products such as energy service agreements and savings-based payment agreements.

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 CCAs or ESPs located within IOU territories qualify. Those in areas served by POUs qualify only if they also receive energy service from an IOU.

For more detail about program design, read the AMF Program emergency regulations.

Nonresidential

Like all the Hub financing programs, the Nonresidential Program is intended to encourage growth in private market lending, in this case for public and large commercial 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.

The Nonresidential Program is not being developed at this time. Launch of the Nonresidential financing program is dependent on the development of On-Bill Repayment (OBR) functionality.

Appendix 2: 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 programs, accepting loan enrollment applications and processing on-bill repayment transactions.
Contract Term	1/1/18 – 12/31/2019
Notes	A one-year extension of this contract is currently underway and expected to be processed in Q4 2019.

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	A one-year extension of this contract is currently underway and expected to be processed in Q4 2019.

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 multiple programs, 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 3: 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 September 30, 2019, CAEATFA had expended $9,415,442 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 September 30, 2019)

Item	Allocated	Expended/ Encumbered[5]	Balance
Hub Administration			
Includes start-up costs, Hub administrative, direct implementation, outreach and training to finance companies and contractors, and contracting costs[6]	$ 13,360,000	$ 9,415,442	$ 3,944,558
Subtotal Hub Administration Costs	**$ 13,360,000**	**$ 9,415,442**	**$ 3,944,558**
Marketing, Education, Outreach (MEO)			
Statewide MEO plan	$ 8,000,000	N/A[7]	$ 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[10]			
Residential Energy Efficiency Loan (REEL)	$ 25,000,000	$ 1,134,615	$ 23,865,385
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**	**$ 1,134,615**	**$ 27,765,385**
Non-Residential Pilots Credit Enhancement Funds			
Small Business sector with credit enhancement	$ 14,000,000	$ 28,270	$ 13,971,730
Subtotal Non-Residential Pilots	**$ 14,000,000**	**$ 28,270**	**$ 13,971,703**
Information Technology (IT)			
IT Funding to IOUs[11]	$ 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[12]	$ 984,931	$ -	$ 984,931
Subtotal Hub Pilot Reserve	**$ 984,931**	**$ -**	**$ 984,931**
GRAND TOTAL	**$ 75,244,931**	**$ 10,578,327**	**$ 64,666,604**

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

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

6 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.

7 The contract for the Marketing Implementer is undertaken by SoCalGas and ongoing budgetary updates are not provided in CAEATFA's reporting.

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

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

12 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.

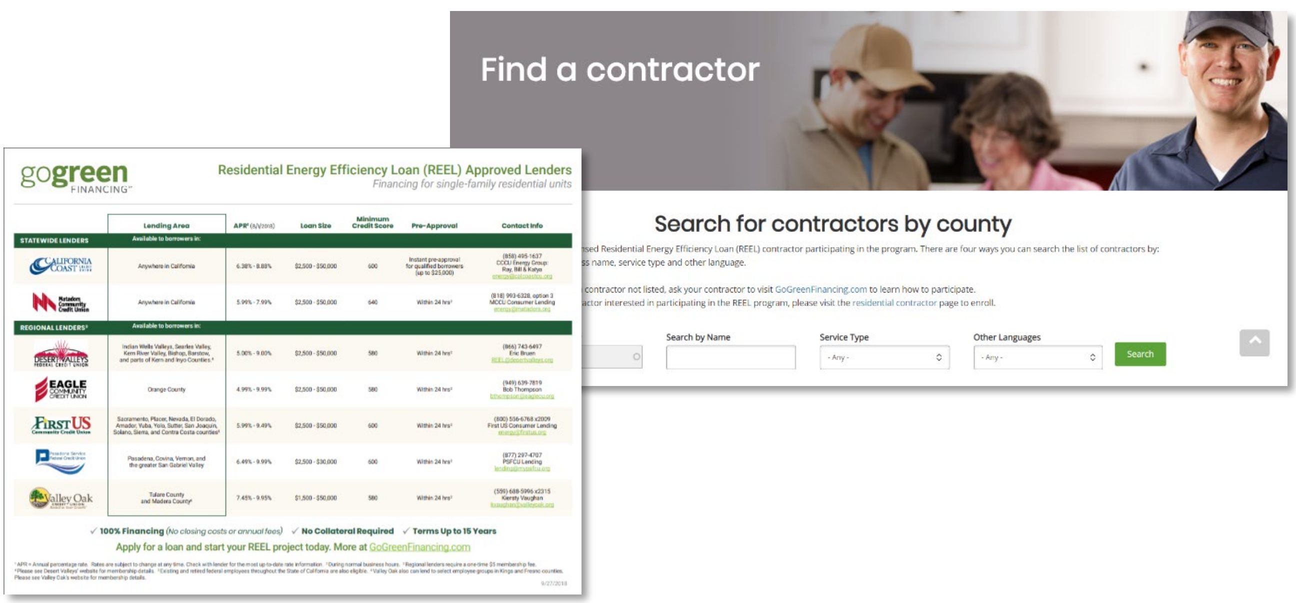
Appendix 4: Customer-Facing Products

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)](http://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
- Pages that allow potential SBF customers to find an SBF participating contractor or project developer, review the products offered by participating finance companies and apply for an SBF loan through the participating finance company's website
- Program descriptions and benefits of the 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
    - Finance company comparison charts for REEL and SBF
    - PowerPoint Presentations
    - Partner talking points
    - REEL case studies



Appendix 5: Loss Reserve Account Beginning and Ending Balances

IOU HOLDING ACCOUNTS

The IOUs release funds into their respective holding accounts upon approval of CAEATFA staff request. CAEATFA staff coordinates with the IOUs to ensure acceptance of the funds from the IOUs and transfer of these funds to the appropriate Program account. The IOU holding accounts earn a small amount of interest each quarter, as shown below:

Table 3. Balance of IOU Holding Accounts

	SCG	PGE	SCE	SDG&E
Beginning Balance 07/01/2019	$736.07	$727.23	$722.36	$729.03
Release of Credit Enhancement (CE) Funds from IOUs	$0.00	$0.00	$100,000.00[13]	$0.00
Ending Balance 09/30/2019	$736.54	$727.68	$100,722.81	$729.48

REEL RELATED ACCOUNTS

Table 4: Balance of REEL Accounts

	REEL Program	REEL Reservation	REEL Interest
	The *REEL Program* account holds the available portion of the requested CE funds that are used to CE projects that are enrolled in the REEL Program. Once a project is enrolled in the REEL Program, the CE portion of the Claim Eligible Amount is transferred to the Participating Lender's LLR. The IOUs hold additional funds budgeted for the REEL Program, and those funds are available to be released to the holding account when needed, then transferred to the Program account.	The *REEL Reservation* account holds funds set aside in the event a loan is pre-approved.	The *REEL Interest* account holds the interest swept from the following accounts: REEL Program, REEL Reservation and all the REEL Lender LLR accounts.
Beginning Balance 07/01/2019	$352,835.95	$0.00	$4,264.96
Funds Recaptured from Annual Rebalance	$46,100.53	$0.00	$0.00
Contributions to Lender Loss Reserve Accounts	($248,197.07)	$0.00	$0.00
Transfer of Funds from Holding to Program Account	$0.00	$0.00	$0.00
Ending Balance 09/30/2019	$150,739.41	$0.00	$5,091.84

[13] In this quarter, SCE deposited a $100,000 tranche of funds in the days just prior to the close of the quarter, and so the temporarily enlarged balance is reflected here. These funds were transferred to the REEL Program account early in Q4 2019.

REEL LENDER LOAN LOSS RESERVE ACCOUNTS

Each time a lender enrolls a project, a CE of either 11% or 20% (depending on CE criteria met) is transferred from the REEL Program account into the respective lender's LLR Account. The ending balance on Table 5 shows the amount the lender has available to offset a borrower defaulting on a loan.

ANNUAL REBALANCE OF LENDER ACCOUNTS

D. 13-09-44 directs CAEATFA to recapture funds periodically when loans are paid off to meet the goal of developing a sustainable program, and D. 17-03-026 gives CAEATFA the ability to true up its credit enhancement funds at its discretion. CAEATFA has chosen to complete the recapture of Credit Enhancement funds through an annual rebalance. The rebalance occurs annually in August for the previous fiscal year running July 1-June 30, as reflected in the tables below. Recaptured funds were transferred from the Lenders LLR Account back to the Program Account.

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
Beginning Balance 07/01/2019	$472,091.49	$364,065.80	$21,874.31	$34,209.02	$27,501.15	$1,905.09	$31,563.01
Recaptured Funds from Paid-Off Loans	$0.00	$(39,957.15)	$0.00	$(2,840.78)	$(3,302.60)	$0.00	$0.00
Claims Paid[14]	($20,691.06)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Loss Reserve Contributions	$89,886.72	$133,289.67	$4,507.06	$0.00	$0.00	$5,301.00	$15,212.62
Ending Balance 09/30/2019	$541,287.15	$457,398.32	$26,381.37	$31,368.24	$24,198.55	$7,206.09	$46,775.63

[14] There were two claims during Q3 totaling $20,691.06.

SBF RELATED ACCOUNTS

Table 6: Balance of Small Business Accounts

	Small Business Program	Small Business Interest
Beginning Balance 07/01/2019	$400,000.00	$240.04
Contributions to Lender Loss Reserve Accounts	($28,270.07)	$0.00
Ending Balance 09/30/2019	$371,729.93	$491.62

Table 7: Balance of Small Business Lender Loss Reserve Accounts

	DLL	Ascentium
Beginning Balance 07/01/2019	$0.00	$0.00
Contributions to Lender Loss Reserve Accounts	$28,270.07	$0.00
Ending Balance 09/30/2019	$28,270.07	$0.00

Appendix 6: 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[15] and serves borrowers with credit scores starting at 580. Over the life of the program Valley Oak has enrolled 13 loans, with two enrolled loans in Q3 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 38 REEL loans during Q3 for a total of 180 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 did not enroll any new loans during Q3 2019, but has enrolled 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. During Q3, it enrolled 42 loans for a total of 300 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. Eagle has enrolled eight total program loans and did not enroll any new loans in Q3 2019.

[15] 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. During Q3 it enrolled one loan with the program for a total of two loans in REEL.

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 10 loans in Q3 for a total of 22 in the program.

Appendix 7: 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[16]	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[17]	No change from existing 580[13]	No change from existing 580[13]	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
The interest rates reflected in this table are effective as of January 21, 2020.							

[16] 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%

[17] 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[18]

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 Q3 interest rates range from 4.99% to a high of 9.99%[19], 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**

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

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