

Small Business Financing Program Regulations Workshop

California Alternative Energy and Advanced Transportation Financing Authority (CAEATFA)

Tuesday October 9, 2018



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- Meeting number: 620 130 436
- Meeting password: CAEATFA



Workshop Agenda

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Gain Program Insight and Provide Feedback

Workshop Goals

- 1. Provide program details to finance companies, contractors, implementers, small business advocates, and other EE industry participants
- 2. Communicate program development status and timeframe for launch
- 3. Seek feedback on regulatory language
- 4. Outline the participation process for stakeholders





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Background

Program Structure

- Key Concepts
- Contractor and Project Developer Eligibility and Roles
- Project and Measure Eligibility
- Credit Enhancement Structure
- Finance Company Eligibility and Roles
- Financial Product Eligibility
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Small Business Program Development Timeline

March 2017	CPUC Decision 17.03.026 gives CAEATFA flexibility to modify the Financing Pilots
April-Dec 2017	CAEATFA focuses on modifying and improving the Residential Energy Efficiency Loan (REEL) Program
April 2018	Workshop presenting a new Small Business Program design
May-Aug 2018	CAEATFA engages stakeholders and makes adjustments to the Program
October 2018	Workshop presenting proposed Regulations and Program design changes followed by more feedback
Nov-Dec 2018	Regulations take effect through the Emergency Regulations process
Dec 2018	Program open for Finance Company, Contractor, and Project Developer Enrollment
March 2019	Program open for Small Businesses and Non-Profits to access financing



We Want Your Comments and Input!

- Please provide comments during this workshop or afterwards through Friday October 19th.
- CAEATFA will consider all comments and incorporate them as appropriate.
- Proposed regulations are available at https://www.treasurer.ca.gov/caeatfa/cheef/sblp/

Comments regarding contractors, projects, and measure eligibility can be submitted to: cheef@treasurer.ca.gov

Or to

Jonathan Verhoef Program Specialist, CHEEF <u>iverhoef@treasurer.ca.gov</u> (916) 653-1375 Comments regarding financing or credit enhancement can be submitted to:

cheef@treasurer.ca.gov

Or to

Miriam Joffe-Block Program Manager, CHEEF mjblock@treasurer.ca.gov (916) 653-3032





Regulation Text Appears Long but Do Not Fear



- Much of the text is definitions, certifications at Program Enrollment, and a list of the pre-approved Eligible Savings Measures
- Building in Program flexibility (e.g. to allow for different finance company business models or a Project Developer role) takes up space
- We are designing Program operations so that it is simple and straightforward to provide CAEATFA with project and financing data through a web-based interface



CAEATFA Made Key Program Design Revisions Based on Public Input

Following the April, 2018 workshop and stakeholder engagement:

- ✓ New "Project developer" role created
- ✓ New measures added to the Energy Saving Measure (ESM) List
- ✓ Select measures on the ESM List will be eligible for self-install
- ✓ Credit Enhancement contribution rate changed to support small projects and avoid awkward jumps
- ✓ Financing agreements up to \$5 million will be allowed.
- ✓ Underwriting requirements for customers are streamlined
- ✓ Distinction between service agreements and savings-based payment agreements clarified
- ✓ Small Business size requirements updated for streamlining as well as flexibility.





Small Business Program Summary of Features

Eligible Customers

Small businesses and Non-profits

Building owners or tenants

IOU service territories

Types of Projects

Energy
Efficiency and
Demand
Response

Flexibility to include non energy-saving measures

Up to \$5MM project size

Financing

Private capital

Loans,
leases/EFAs,
service
agreements,
savings-based
payment
agreements

Credit Enhancement

No cost to finance company or customer

\$14MM loss reserve

20%
contribution
on first \$50k
of financing;
5% on next
\$950k

Lead Generation

Statewide marketing campaign

Finance
companies
and
contractors
featured on
Program
websites

Ease of Use

Multiple options for measure eligibility

Web-based interface instead of forms

Supports varied finance business models



Ratepayer Funded Credit-Enhancement Results in Benefits for Customers, and Larger Projects

1

Program provides finance companies with credit enhancement

Finance companies are able to offer better terms or approve a wider group of customers

Contractors present
CHEEF financing
options to their
customers

Attractive financing allows customers to complete deeper energy retrofits

(4)

We expect the credit enhancement will allow finance companies to offer some combination of:

- Lower rates
- Longer terms
- Larger amounts available
- Lower contractor reserve requirement

- Broader approvals
- Shorter years in business requirement
- Shorter years remaining on lease requirement
- Lower credit score minimums



Who Should Participate in This Program and Why

- Attract new customers and expand in California
- Mitigate risk through a loan loss reserve
- Offer attractive terms and approve a wide range of borrowers

Finance Companies



- Offer financing to sell deeper energy retrofits and projects with larger scopes
- Offer alternatives to C-PACE and OBF
- Benefit from a statewide marketing campaign

Contractors and Project Developers



- Integrate our financing into your programs to overcome customers' upfront cost barrier
- Measures
 qualifying for
 utility programs
 qualify for
 financing

Utility Implementers



- Provide small businesses access to attractive financing for retrofits
- Integrate our financing with your sustainability initiatives
- Grow green jobs in your community

Local Government



Reach Customers through Statewide Marketing Efforts

Examples here shown from the Residential Energy Efficiency Loan (REEL) Program



Customer-facing website



Print Collateral with cobranding opportunities

Social Media campaigns



- No prepayment penalty
- No closing costs Borrow \$2,500-\$50,000

SoCalGas A Sempra Energy unit



Residential Energy Efficiency Loan (F Affordable Comfort is Available through REEL

Are You in Need of New Appliances or Other Home Improvements Costs are Putting Your Comfort on Hold?

Affordable Comfort is Available through REEL

The Residential Energy Efficiency Loan¹ (REEL) program offers att lending solutions for energy improvements to make your home mor comfortable and more energy-efficient. REEL financing also has of borrowers with limited income or those with lower credit scores. Ar other loan programs, your home won't be used as collateral with RI aren't convinced yet that REEL is the lending solution for you:

Additional REEL Program Benefits

Utility marketing campaigns reaching millions



The Residential Energy Efficiency Loan (REEL) program is an affordable lending solution to help LADWP customers make their homes more energy-efficient. Borrowers have been using REEL to finance heating and air conditioning systems, windows, energy-efficient appliances and other products. With its attractive interest rates and terms, REEL appeals to borrowers with a broad range of income and credit scores. And, unlike other loan programs, your home won't be used as collateral with REEL.

REEL Program Benefits

- 100% financing available no upfront cash required
- · No prepayment penalty
- · No closing costs or fees
- Project costs may be reduced through utility rebates and incentives

Save energy AND money! ▶

Visit GoGreenFinancing.com/residential to learn about eligibility and more.





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California Will Only Achieve Its Building Energy Reduction Goals Through Leveraging Private Capital

The California Legislature has set ambitious goals to mitigate climate change:

AB 32	2006	Requires state to reduce its GHG emissions to 1990 levels by 2020.
AB 758	2009	Recognizes the need for California to address climate change through reduced energy consumption in existing buildings (residential, commercial, and public).
AB 802	2015	Authorizes energy efficiency programs to bring existing buildings up to current code and creates a building energy use benchmarking and disclosure.
SB 350	2015	Requires doubling of the state's energy efficiency savings by 2030.
SB 32	2016	Requires the state to reduce GHG emissions 40% below 1990 levels by 2030.
SB 100	2018	Requires 100% of retail electricity sales to be RPS-eligible or zero-carbon by 2045

\$50 Billion

Needed to retrofit CA's existing buildings* Ratepayer and taxpayer \$ are insufficient

*Harcourt Brown and Carey, "Energy Efficiency Financing in California Needs and Gaps Preliminary Assessment and Recommendations." July, 2011.





California Public Utilities Commission Authorized \$75 Million Toward a Series of Statewide Financing Pilots to:

- 1. "Develop **scalable** and **leveraged** financing products to stimulate **deeper EE projects** than previously achieved through traditional program approaches (e.g., audits, rebates, and information)"
- 2. "Test whether transitional ratepayer support for Credit Enhancements can lead to **self-supporting EE finance programs** in the future"



CAEATFA - housed in the State Treasurer's Office, develops programs to leverage private capital to support the State's energy and environmental policy goals.





The Investor Owned Utilities (IOUs) are CAEATFA's partners in developing and implementing the CHEEF pilots.



CHEEF - administered by CAEATFA, is a public-private partnership engaging lenders and contractors, designed to encourage an uptake of energy efficiency projects through increased access to financing



Marketing Implementer
Center for Sustainable Energy
runs the Statewide marketing
campaign, connecting small
business owners to the
Program.



Residential Energy Efficiency Loan Assistance Program (REEL) Launched in the Summer of 2016

Lenders have financed more than

In residential loans

\$17,000

Average interest rate

Average loan size

51%

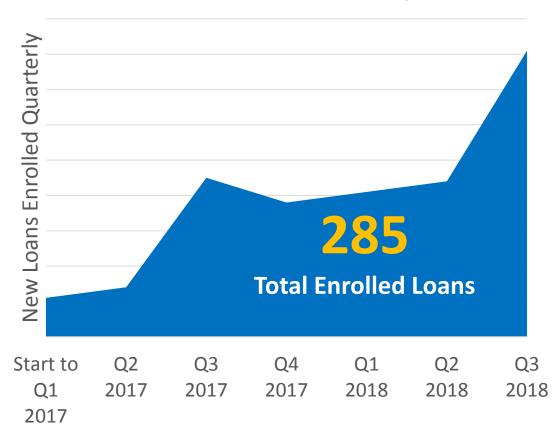
Homes located in LMI Census **Tracts**

280 and growing!

Participating Contractors

Approved Lenders

Loan Volume Since Pilot Began





Small Business Program is Designed to Address Barriers to EE Financing



Leased properties qualify

Financing is secured by equipment, not the property

No upfront investment required of customers

Project developers can guide small businesses through projects

Financing options: Loans, Leases, or Energy Service Agreements

30% of financing may be used for non energy efficiency improvements

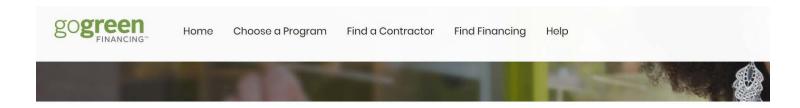
Statewide marketing campaign to build awareness



Public-facing Platform Promotes the Financing Pilots



- Launched in April, 2018
- Small business participating finance companies, contractors, and project developers to be featured on site
- 1,846 unique web referrals to lenders between April –
 September
- o 36,000 users in August alone



Financing for small business energy efficiency projects

The Small Business program will be available for:

- for-profit businesses
- · non-profit organizations

Like all of the programs highlighted on GoGreen Financing, the Small Business program is designed to encourage growth in private market lending and will feature a credit enhancement to help financing entities mitigate risk. The flexibility of this program gives the customer the option to combine financing with utility rebates and incentives, and gives finance companies the option to collect repayments through the customers' energy bills. To participate in the Small Business program, the customer must meet the definition of a small business, which is defined — by industry – by the U.S. Small Business Administration. Finance companies and contractors who serve larger for-profit businesses and non-profit organizations, that do not meet the small business definition, may be interested in the Nonresidential program.



GoGreenFinancing.com



Private Capital Offered Through the CHEEF Complements Utility On-Bill Financing (OBF) and C-PACE

Complementary to OBF

- Projects greater than \$100,000 or less than \$5,000
- Customers wanting a lease, service agreement, or savingsbased payment agreement
- Larger measures requiring payback longer than 5 years or projects that may never be "bill neutral"
- Projects that save energy but aren't eligible for an IOU rebate
- Projects with a non-energy-efficiency component
- Lighting measures not on the Qualified Products List (QPL)
- Custom projects where the business does not want to wait for the utility's custom incentive approval

Complementary to C-PACE

- Tenant occupants (most small business owners rent space)
- Customers not wanting a lien on their property
- Smaller projects for which a PACE transaction is too costly



CAEATFA's Approach to Small Business: Enable Broad Market Participation

- Decision 17.03.026 gave CAEATFA broad authority to decide what projects and measures would be eligible for financing
- Programs stay small when they are complex
 - Contractors tell us that IOU custom approval process takes too long and customers move forward with less efficient installations
- CAEATFA believes for pilots to be successful they must:
 - 1. Be easy and streamlined for Program participants
 - 2. Be relevant to a broad set of small business project needs
- CAEATFA is seeking a balance between ensuring energy savings and keeping the Program simple enough to promote broader uptake
 - > Portfolio approach: not every project will result in energy savings recognized by the CPUC, but overall the portfolio of projects will yield energy savings
 - ➤ It's a pilot we should be experimenting with simplicity
- Savings will be determined by the CPUC's contracted EM&V team for projects that do not obtain a rebate or incentive
 - CAEATFA has advocated for a meter-based approach which would remove the need for complex, up-front, data collection





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Program Permits Projects up to \$5 Million; Offers a Credit Enhancement on the First \$1 Million

Total Financed Amount • *Up to \$5 million*

Claim Eligible Financed Amount • *Up to \$1million*Measures eligible for credit enhancement

Energy Saving Measures (ESM)

must account for at least 70% of the claim eligible financed amount

Non-Energy
Components*
may account for up to 30%

Claim Ineligible
Financed Amount:
Measures not eligible
for credit
enhancement



^{*} Non-Energy Components include non-energy saving measures, capitalized interest, and service fees

Claim-Eligible Financed Amount Can Include Legally Required Installations and Up to 30% Non-Energy Improvements

Total Financed Amount • *Up to \$5 million*

Claim Eligible Financed Amount • *Up to \$1 million*Measures eligible for credit enhancement

Claim Ineligible Financed Amount

Additional

ESMs

non-energy

components

beyond 30%

of the claim

eligible

financed

amount

At least 70%

Up to 30%

Energy Saving Measures (ESM)

Energy Efficiency, Demand Response

Legally & Practically Required

Non-Energy Components

All non-ESMs
excluding
distributed
generation.
Examples:
Landscaping
New Floors
Remodel

beyond Distributed \$1MM and/or Generation

Examples: Solar PV, CHP, storage

Pre-Qualified ESM List IOU Custom Program Approval Certified by
Professional
Engineer
(PE) or
Certified
Energy
Manager
(CEM)

Measures
that are
required to
complete the
installation of
ESMs

Program Rules are Structured Around the Amount of Financing

Above

- Stricter customer underwriting requirements
- Projects require an Energy Professional (Professional Engineer or Certified Energy Manager) to certify savings or an IOU custom incentive approval
 - Lighting measures on the ESM list excluded from certification or IOU custom requirement

\$350,000

Below

- Fewer customer underwriting requirements
- Projects can qualify automatically if measures are on CAEATFA's broad, pre-approved list



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Contractor and Project Developer Roles Compared

Licensed Contractor Role

- CSLB-licensed
- Contracts with customer for installation
- Installs measures at project Site(s)
- Can hire subcontractors or other trades
- Certifies Title 24 compliance, installation completion, proper permits, and licenses

Project Developer Role

- May contract with customer for consultation or may provide subsidized service
- Works with customer and contractor(s) to shepherd a project through the program
- Involved throughout the project lifecycle
- Provides certification of project compliance with Program rules
- Well-suited for utility implementers



- Develops scope of work
- Provides customer with Bill Impact Estimate (BIE)
- Performs energy assessment, if needed or desired by customer
- Provides customer and project data to CAEATFA through easy-to-use web-based interface





Contractor Participation Criteria

- Active license from the Contractors State License Board (CSLB) relevant to the work performed under the Program
- No disciplinary action against CSLB license within the past 24 months
- No outstanding judgements or liens
- Provide installation service of at least one Energy Efficiency or Demand Response measure
- Carry at least \$2 million of general liability (GL) insurance
- Complete a training made available by CAEATFA
- Sign a participation agreement regarding program rules, regulations, and liability



Small Business Financing Program Guide updated 10.08.18

Project Developer Participation Criteria

- Demonstrated role as a project developer in at least 25 completed projects
- Carry at least \$2 million of general liability (GL) insurance
- No outstanding judgement or liens
- Complete a training made available by CAEATFA
- Sign a participation agreement regarding program rules, regulations, and liability

Seeking Feedback:

- Is 25 projects the right criteria/threshold for experience?
- What, if any other qualifications should be considered?
- 3. Should utility program implementers automatically qualify as Project Developers, regardless of # of projects completed?



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Energy Saving Measures Qualify via Three Methods

- 1. Pre-Qualified Energy Saving Measure (ESM) List
 - Includes any measure that qualifies for a rebate through an IOU Program, third party administered Program or REN, or CCA Program
- 2. IOU Custom Approved Measures
- 3. Professionally Certified Energy Saving Measures

Energy Saving Measure

 Any Energy Efficiency or Demand Response Measure, as defined, including alterations and improvements that are legally or practically required to complete the installation of the energy saving measures.

Energy Efficiency

 An energy using appliance, equipment, control system, or practice whose installation or implementation results in reduced grid-supplied energy use while maintaining a comparable or higher level of energy service as perceived by the customer.

Demand Response

 Reductions, increases, or shifts in electricity or gas consumption by customers in response to either economic or reliability signals.



Method 1: Measures on the "ESM List" are Pre-Qualified

Measure Categories

Agriculture

Appliances

Building Envelope

Data Centers

Food Service

HVAC

Industrial

Lighting

Pools

Refrigeration

Water Heating

- CAEATFA has created a list of pre-qualified energy saving measures (ESM)
- Measures on the ESM list can be financed without any additional approval for:
 - ➤ Up to \$350,000 for non-lighting measures
 - ➤ Up to \$5 million of lighting measures (Only the first \$1 million will be claim-eligible financing)
- Some ESM list measures include eligibility requirements
- Includes an "IOU/REN/CCA Rebate Other" category as a catchall for any IOU approved measure
- The full draft ESM list is included in the presentation appendix





Select ESM List Measures are Eligible for Self-Install

- Self-install measures are those that are installed without the use of a Participating Contractor
- Select ESM list measures have been identified by CAEATFA as self-install eligible if:
 - > The measure can be legally and safely installed without a special license
 - The measure's performance is unlikely to be affected by non-professional installation
- Examples of self-install measures include:
 - > Plug-in appliances or equipment, screw-in lighting, smart thermostats, low-flow shower heads
- Projects with self-install measures must have a participating Project Developer who will:
 - Submit measure and project data to CAEATFA
 - Provide project certification





Method 2: Measures Approved for IOU Custom Incentives











 Contractor must submit a copy of custom approval letter / notice to proceed

Small Business Financing Program Guide updated 10.08.18















Method 3: Measures Professionally Certified as Expected to Save Energy

- Any other energy saving measure can be professionally certified as expected to save energy
- Certification can be completed by a California licensed Professional Engineer (PE) or an Association of Energy Engineers Certified Energy Manager (CEM)
- Must submit energy savings
 estimate as annual kWh or therms







All Projects Must Meet Basic Requirements

- ✓ Contractor's license must be applicable to the work being performed
- ✓ Necessary permits and approvals secured
- ✓ Measures installed in compliance with Title 24 and all other laws
- ✓ ESM fuel savings (electric or gas) matches IOU service type at the installation location
- ✓ Bill Impact Estimate provided to the customer. (Can use a CAEATFA-supplied BIE)
- Contractors certify installations as complete and in compliance with Program Rules
- ✓ Project Developers certify projects are in compliance with Program Rules







Projects Have a Lot of Flexibility

Can include a Project
Developer but doesn't
have to

Combine measures from any of the 3 qualification methods

Complete with a single or multiple
Participating contractors



Combine self-install measures with Contractor-installed measures

Include Non-Energy
Savings Measures (Non
ESMs) for up to 30% of
the claim-eligible
financed amount

Customer can selfinstall or hire a non Participating Contractor for Non ESMs

Scale from a single measure to a comprehensive retrofit

Finance companies can include solar, though it will not receive a credit enhancement



Projects May be Subject to Post-Installation Verification Checks



esktop Verification

 Electronic review of project data and documentation

- IOU service
- IOU rebates (if applicable)
- Fuel type match
- Measure cost breakdown
- Invoice check



Photo Verification

- Photographic review of equipment type and installation
- May also include desktop verification



- On-site review of equipment type, quantity and installation
- May also include desktop verification



Field

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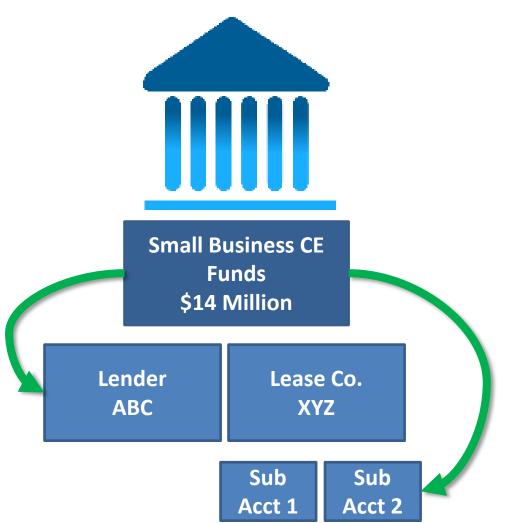
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Credit Enhancement is Structured as a Loss Reserve No Cost to Finance Company or Customer



Loan Loss Reserve Structure:

- Current budget: \$14 million. CAEATFA can shift more funds to the Program if there is demand
- Trustee accounts: Designated Loss Reserve (LR) accounts for participating finance entities at a Trustee Bank
- Contributions: Made to finance company's LR account within 10 days of receiving an eligible loan, lease, service agreement or savings-based payment agreements
- Access to funds: In event of default, finance entity can file claim to recoup up to 90% of principal loss
- Option for sub accounts: Finance companies selling loans/leases to different investors may benefit from sub-accounts for additional investors



Finance Companies are Incentivized to Finance Smaller Projects through a Higher LR Contribution Rate

Claim-Eligible Financed Amount	Contribution Rate
First \$50,000 of each agreement	20%
Next \$950,000 of each agreement	5%

- Total Financed Amount can be up to \$5 million
- Only \$1 million is "Claim-Eligible Financing"
- Maximum loss reserve contribution is \$57,500 per project
- Smaller projects are harder to finance, yet there is a real need for very small ticket financing
- Methodology allows finance companies to build up their loss reserve accounts quickly after joining the Program



Finance Company May Recoup 90% of Claim-eligible Charge-off Amount

Claims Process

Financing customer defaults

Loan/lease/agreement is charged off



Finance entity takes reasonable collection steps



Finance entity files claim with Program within 60 days of charge-off



Program pays out 90% of claim-eligible charged off amount, funds in LR account permitting

See appendix for an example of a claim calculation

- Financing is "Claim-Eligible" for 10 years
- Payments are paid "net of recovery" company won't be made more than 100% whole
- If finance company recovers additional funds after claim is paid such that they are more than 100% whole, finance company reimburses the Program
- Finance company takes reasonable steps toward recovery (in line with industry standard) through liquidation of collateral or collecting personal guarantees, if applicable
- Finance company can assign payment to a third party
- If funds in LR Account are insufficient to cover 90% of charge-off, future contributions can be accessed to cover the charge-off.



CAEATFA is aiming for product parity in terms of the Credit Enhancement; Ongoing service fees are not "Claim-Eligible"

Total Financed Amount

Loans & Leases / Equipment Finance Agreements

Service Agreements / Savings-Based Payment Agreements

- The original principal amount as disclosed to the Eligible Commercial Finance Customer through loan or lease documentation or the job addendum.
- The total installation amount paid to the Participating Contractor and disclosed on the job addendum, inclusive of equipment, taxes, labor and shipping costs and exclusive of ongoing service and oversight payments by Eligible Commercial Financing Customer.

Total Charge-Off Amount

Loans & Leases /
Equipment Finance
Agreements

Service Agreements / Savings-Based Payment Agreements

- The outstanding principal at the time of charge-off
- (Total initial installation amount paid to contractor(s) divided by the number of months in the term) multiplied by the number of months remaining in the term. Ongoing monthly service charges are excluded from the charge-off amount.



CAEATFA Will Rebalance the Loan Loss Reserve Accounts Annually

- CPUC Decision 13.09.044 requires
 CAEATFA to recapture funds periodically for Program use or to return to
 Ratepayers for other programs
- CAEATFA wants to balance allowing finance companies to build up their LR account balances with having credit enhancement funds available for additional projects
- Proposed rebalance methodology makes allowances for claims, supporting the "portfolio insurance" feature of the LR Account

Rebalancing Process

In July, CAEATFA looks at previous fiscal year to see which enrolled loans/leases/agreements have fully paid off



CAEATFA recoups original LR contribution amount for paid off loans/leases/agreements



If a claim has been made during the fiscal year, CAEATFA will reduce the recapture amount by the amount of the claim



If the claim amount is larger than the recapture amount, there will be no recapture of funds for that year



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Finance Companies Perform Multiple Functions along in the Small Business Program

Marketing Representation

 Entity that is publicly listed as part of the Program on websites and in marketing materials

Underwriting

 Follows Program guidelines for approving projects and financing

Origination

- Executes the legal contract for repayment of the financing
- Obtains financing customer certifications



Finance Companies Perform Multiple Functions in the Small Business Program (continued)

Financing Submittal

 Reviews contractor and customer data for a project, and submits along with financing data to CAEATFA for Enrollment in the program.

Servicing

- Sends out regular billing statements and collects payments
- Allocates payments to investors
- Engages in collections
- Responds to customer questions

Monthly Reporting

Supplies CAEATFA
 with regular monthly
 reports covering
 loan/lease/agreement
 performance data as
 well as data on any
 sale or transfer of the
 financing

LR Account Representation

- Loss reserve accounts will be set up in the name of this entity at the Trustee Bank
- Files claims in the case of a charge-off
- Receives claim payments
- May distribute claim payments to third parties

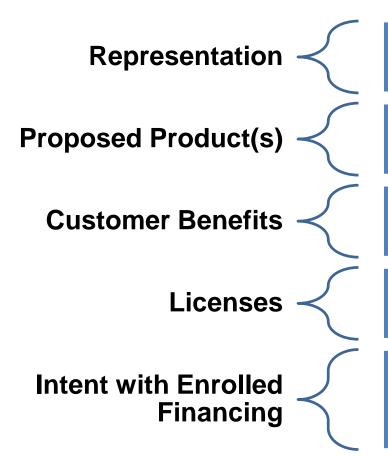


To Accommodate Various Business Models, CAEATFA is Proposing a Flexible Participation Strategy

- Two entities can join together to apply to the program as a primary applicant and an affiliate-applicant
 - > Both must sign the application and certifications, representations, and warranties
- Primary applicant fulfills the role of submitting loans to CAEATFA
- Applicants disclose which entity will perform the roles of: Underwriting,
 Origination, Servicing, Monthly Reporting, LR Account Representative
- Applicants may designate a third entity to be the Marketing Representative or may designate the primary or affiliate applicant to this role
- Applicants disclose what entity is funding the actual agreements and named on the documents. This may be a third party



Regardless of Structure, Applicants Must Meet Key Requirements



- Agrees to comply with Program rules in marketing and representing the Program
- One applicant outlines and certifies proposed rates, terms and credit requirements to be offered as part of the Program
- One applicant describes and certifies how financing customers will benefit from the Applicants' access to the credit enhancement
- Applicants certify that they hold proper licenses for engaging in their business activities in California
- Applicants describe the intent for Enrolled Financings, (e.g. hold, sell, transfer, participate, portfolio, warehouse) and the purchaser, if known



Non-Financial Institutions Can Participate with Additional Requirements

- A Financial Institution, for purposes of the Program, is a federally insured depository or a CDFI
- Applicants who are not Financial Institutions must maintain General Liability, Motor Vehicle Liability, and Worker's Compensation insurance
- Additional requirements for the entity performing these functions if not a Financial Institution:

Underwriting

- Demonstrated experience with underwriting for equipment financing
- Describe the underwriting process
- Demonstrate qualifications of key personnel
- Net Worth of at least \$1MM

Origination

- Demonstrate at least \$20MM in committed capital for general financing
- Net Worth of at least \$1MM
- Demonstrated ability to originate commercial financing in accordance with all applicable laws
- At least 50 transactions or \$50 million in transactions funded
- Provide sample documentation

Servicing

- Demonstrated capacity for and experience with servicing
- Net Worth of at least \$1MM
- Describe key personnel, software, and systems used



Seeking Feedback on Finance Company Requirements:

- 1. Should Financial Development Corporations (FDCs) be considered "Financial Institutions for the purposes of these regulations?
- 2. Is it a problem to require a single entity act as Servicer? Is flexibility needed as financing agreements are sold?
- 3. Do you foresee any concerns with the Acknowledgments, Representations, and Certifications outlined in Regulations Sections 10092.2(C)(4)-(7) or 10092.3 (L)-(M)



Executive Summary

Background

Program Structure

- Key Concepts
- Contractor and Project Developer Eligibility and Roles
- Project and Measure Eligibility
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- Enabling a Secondary Market

Project Lifecycle

Feedback

Resources and Appendices





Program supports a variety of financing instruments

Loan

- Customer takes ownership of measures
- Fully amortizing (fixed payments amortize loan to \$0) or balloon structures (ie. fixed payments for loan term with a final payment at end of loan term)

Lease/Efficiency Financing Agreement

- Customer gets use of measures
- Title can transfer at end of lease term or at beginning of term (Equipment Finance Agreement)

Service Agreement

- Customer gets use of measures
- Regular, ongoing service and maintenance of measures is provided to the customer
- Title does not transfer to customer
- Guarantee of functionality of measures or guarantee of energy savings

Savings-Based Payment Agreement

- Savings measured and verified at least annually
- Agreement is "cashflow positive" for customer compared to prior energy bills
- Customer shares in benefits if savings exceed expectations
- Customer does not bear risk if savings are less than projected



Product Requirements

Category	Specification
Disclosure	Finance entity must disclose to the customer either (1) an Annual Percentage Rate (APR) inclusive of any fees as well as advance payments OR (2) The total cost of the project comprised of (monthly payments x number of months in the agreement) + fees
Interest rate	 No cap, although as part of application process, finance entity must demonstrate a customer benefit in exchange for receiving credit enhancement; that benefit may or may not be reduced interest rates. Rates may be fixed or variable
Term Length	 No restriction (although period for filing claims in case of default is limited to 10 years) No open-ended lines of credit
Financing Minimum	None
Financing Maximum	 Credit enhancement stops at \$1MM Total financing amount is capped at \$5MM



Product Requirements, Continued

Category	Specification
Refinance or Renewal	Permitted if loan/lease/service agreement/savings-based payment agreement is enrolled with the Program within 90 days of project completion.
Fees	 Must be disclosed on finance company's application to our program Must be reasonable and in-line with industry standards Must be disclosed to customer or presented as part of an APR
Progress payments to contractors	Permitted, but not required
Collateral	 For Total Financed Amounts <\$50,000: Permitted, but not required For Total Financed Amounts > \$50,000: Finance company must take a security interest Security cannot be real property with exception of UCC-1 fixture filing
Personal Guarantees	Permitted, but not required, unless used to satisfy Program underwriting requirement (See Customer Eligibility Section).



Seeking Feedback on Product Requirements

- 1. Do the updated product definitions work for the industry?
- 2. Does the updated disclosure requirement provide parity across product types? Is it doable for your company?



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Project Lifecycle

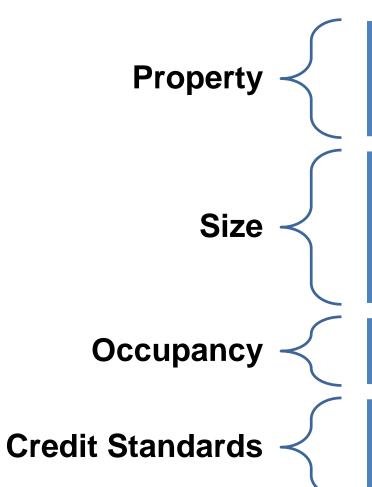
Feedback

Resources and Appendices





Eligible Customers Include Small Business and Non-Profit Building Owners and Renters



- Receives gas or electricity from one of the four Investor Owned Utilities (IOUs), a Community Choice Aggregator (CCA) or Energy Service Provider (ESP)
- Used for business purposes
- A non-profit or small business meeting one of:
 - 100 or fewer employees
 - Annual revenues less than \$15 million
 - Meets the SBA size standard requirement for the customer's industry (Ranges from annual revenues of \$7.5MM-\$37.5MM)
- Owners or tenants
- No bankruptcies, judgements, or liens within last 5 years
- Credit check
- Additional requirements based on Total Financed Amount



Customer Credit Requirements are Designed to Fit Within Existing Underwriting Processes

Total Financed Amount Up to \$350,000

- (1) Underwriter must conduct a credit check using a standard industry credit scoring service **and**
- (2) Underwriter checks for positive operating profit (EBIT/EBITDA) or positive taxable income for last two years

OR

Customer has been in business at least 5 years

OR

Customer provides a personal guarantee

Total Financed Amount Over \$350,000

- (1) Underwriter must conduct a credit check using a standard industry credit scoring service **and**
- (2) Business shows a positive operating profit (EBIT/EBITDA) or positive taxable income for at least 2 out of the last 5 years and
- (3) Debt Service Coverage Ratio is greater than 1.1 for at least 2 out of the last 5 years



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Project Lifecycle

Feedback

Resources and Appendices





Program Should Enable Sale and Transfer of Enrolled Financings

- o Program goals include bringing more private capital to the energy efficiency financing space
- Therefore, program should facilitate the sale and transfer of enrolled loans, leases and ESAs, while recognizing that the structure of the Loss Reserve steers Participating Finance Companies toward a limited number of purchasers

Permitted activity

Reporting of sales

Trustee sub accounts

Ongoing program responsibility

Successor enrollment in program

- Sale, transfer, or assignment of an enrolled financing in whole or in part
- Sale, transfer, or assignment of a portfolio of enrolled financings in whole or in part
- Finance company reports to CAEATFA monthly on sales, transfers, or assignments including date of sale and name of purchaser/assignee
- CAEATFA will open up to 3 sub-accounts for finance companies that want to group loans/leases/ESA for a specific investor
- Entity(s) originally responsible for monthly reporting and assigned as the LR Account representative retain responsibility for those activities unless a successor enrolls in the Program
- CAEATFA considering how to allow transfer of responsibility for the servicing, reporting, and LR Account Representative roles to a new entity when financings are sold



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Project Lifecycle

Feedback

Resources and Appendices





A Web-Based Interface Allows Multiple Users to Easily Submit Finance and Project Information



Finance Company

Customer Data e.g.

- NAICS code
- # of years in business
- Commercial credit score and scoring system

Finance Agreement Data e.g.

- Product type
- Funding date
- Total financed amount



Certification that Project is complete

Privacy Disclosure



Customer



Contractors or Project Developers

Project Data e.g.

- Property address(es)
- Utility bill upload
- Measure categories, names and descriptions
- Permit numbers
- Total cost of energy saving scope of work
- Total cost of other measures
- Utility rebate information



Web Interface Enables Easy Interaction With Program

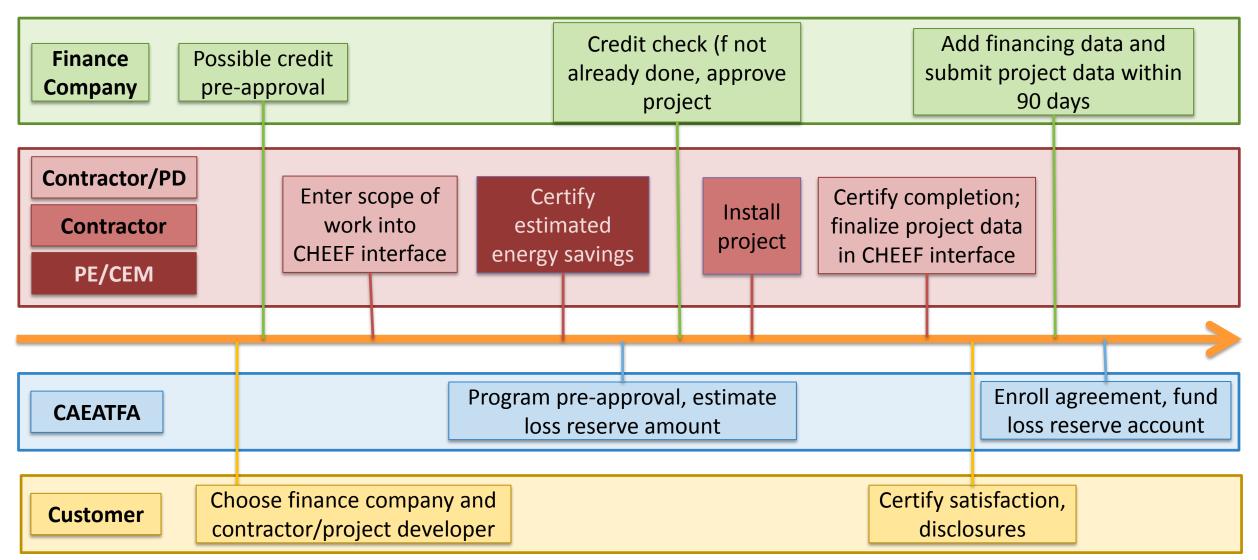


- Replaces the need for program forms
- o Interface will automatically notify an Energy Professional to certify energy savings, if applicable
- o Interface will automatically generate program certifications for customers to sign
- o Finance Companies can see the projected Loss Reserve contribution for their project and will get an "approved project" notification after key data is inputted
- Finance Companies, Project Developers and Contractors can see all of their CHEEF projects on a dashboard
- Option to receive email notifications at key stages, i.e., when a contractor has updated the scope of work

Interface does not replace real-world communication between **finance company** and contractor, finance company and customer or contractor and customer.



Project and Financing Interaction with Program





Finance Company Reports Monthly on all Enrolled Financing Agreements

- Financing status: current; 30 days, 60 days, or 90 days past due; fully satisfied; or charged off
- Current outstanding financed amount
- Updates to the maturity or contractual end date, payment amount, and/or interest rate
- If sold or transferred, date of sale or transfer and name of purchaser or transferee
- For Delinquencies and Charge-offs:
 - Date and amount of any charge-off and whether enforcement proceedings have begun
 - Any anticipated losses and whether acceleration notices have been sent
 - Amount of any recoveries or proceeds from chargedoff financings



- ✓ Simple excel report
- ✓ Readily available data



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Project Lifecycle

Feedback

Resources and Appendices



Summary of Questions for Feedback

Project Developer Role:

- 1. Is 25 projects the right criteria/threshold for experience?
- 2. What, if any other qualifications should be considered?
- 3. Should utility program implementers automatically qualify as Project Developers, regardless of # of projects completed?

Finance Entity Role:

- 1. Should Financial Development Corporations (FDCs) be considered "Financial Institutions for the purposes of these regulations?
- 2. Is it a problem to require a single entity act as Servicer? Is flexibility needed as financing agreements are sold?
- 3. Do you foresee any concerns with the Acknowledgments, Representations, and Certifications outlined in Regulations Sections 10092.2(C)(4)-(7) or 10092.3 (L)-(M)

Product Requirements:

- 1. Do the updated product definitions work for the industry?
- 2. Does the updated disclosure requirement provide parity across product types? Is it doable for your company?

We encourage you to comment on any provision of the Regulations, beyond the specific questions we have posed here.



We Want Your Comments and Input!

- Please provide comments during this workshop or afterwards through Friday October 19th
- CAEATFA will consider all comments and incorporate them as appropriate
- Proposed regulations are available at https://www.treasurer.ca.gov/caeatfa/cheef/sblp/

Comments regarding contractors, projects, and measure eligibility can be submitted to: cheef@treasurer.ca.gov

Or to

Jonathan Verhoef Program Specialist, CHEEF <u>iverhoef@treasurer.ca.gov</u> (916) 653-1375 Comments regarding financing or credit enhancement can be submitted to:

cheef@treasurer.ca.gov

Or to

Miriam Joffe-Block Program Manager, CHEEF mjblock@treasurer.ca.gov (916) 653-3032





Executive Summary

Background

Program Structure

- Key Concepts
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Participation

Feedback

Resources and Appendices



CHEEF Pilot Program Overview REEL Affordable Small Non-Residential (Residential) **Multi-Family Business** Owners of properties with at SBA size Any size business or Homeowners or renters. **Designed for** least 50% income restricted small businesses and non-profit; government upgrading 1-4 units and public entities units non-profits Loans, leases, service Loans, leases, service agreements, savingsagreements, savings-Loans, RICs Loans, leases & ESAs* any **Financing Products** based payment based payment Up to \$50,000 size** agreements agreements Up to \$5MM** Up to \$5MM Direct to lender or through Direct to lender or Through utility bill Repayment Direct to lender through utility bill utility bill **Credit Enhancement** Loan Loss Reserve Loss Reserve Loss Reserve None **Initial Authorization** Up to \$25MM Up to \$2.9MM Up to \$14MM Open to finance Launched summer 2016, companies, contractors, **Status** modifications made Fall Launching 2019 Launching 2019 & project developers fall 2017 and Spring 2018 2018

^{*} ESA = Energy Service Agreement ** Only first \$1MM in financing will receive a credit enhancement





Example of a Claim			
Original Total Lease Amount	\$200,000		
Original Claim-Eligible Principal Amount	\$150,000	e.g. \$50,000 of original lease was for solar	
Claim-Eligible Percentage	75%	Original Claim Eligible Amount / Original Total Lease Amount	
Total Outstanding Amount at time of charge-off	\$90,000		
Total Outstanding Claim-Eligible Amount at time of charge-off	\$67,500	Claim-Eligible Percentage x Total outstanding Amount at time of charge-off	
Total potential claim allowance	\$60,750	90% x Total outstanding Claim-Eligible Principal	
Total Recoveries	\$10,000	Amount of Charge-off recovered by the Lease company	
Recoveries attributed to Claim-Eligible Principal	\$7,500	Total recoveries x Ratio	
Claim Amount	\$53,250	Total potential claim allowance less Recoveries attributed to Claim-Eligible Principal	

"Charge-Off" means: For **loans and leases -** outstanding principal balance at the time of charge-off. For **service agreements or savings-based payment agreements -** the Original Total Financed Amount divided by the number of months in the term multiplied by the number of months remaining in the term.





Energy Saving Measure (ESM) List – Page 1 of 11

Measure Category	Measure	Requirements	IOU Fuel Source Eligibility	Eligible for Self-Install
Agriculture	Booster and Well Pumps		Electric	No
Agriculture	Heat Recovery		Electric Gas	No
Agriculture	High Efficiency Ventilation Fans		Electric	No
Agriculture	Irrigation Pump Testing and Replacement		Electric	No
Agriculture	Plate Coolers		Electric	No
Agriculture	Sprinkler-to-Drip Irrigation		Electric	No
Agriculture	VFD on Booster and Well Pump Motor		Electric	No
Agriculture	VFD on Pump or Fan Motor		Electric	No
Appliances	Air Cleaner/Purifier	Energy Star	Electric	Yes
Appliances	Clothes Dryer (Electric)	Energy Star	Electric	Yes
Appliances	Clothes Dryer (Gas)	Energy Star	Gas	Yes
Appliances	Clothes Washer (Electric Hot Water)	Energy Star	Electric	Yes
Appliances	Clothes Washer (Gas Hot Water)	Energy Star	Gas	Yes
Appliances	Residential Dishwasher (Electric Hot Water)	Energy Star	Electric	Yes
Appliances	Residential Dishwasher (Gas Hot Water)	Energy Star	Gas	Yes
Appliances	Residential Freezer	Energy Star	Electric	Yes
Appliances	Residential Refrigerator	Energy Star	Electric	Yes



Energy Saving Measure (ESM) List – Page 2 of 11

Measure Category	Measure	Requirements	IOU Fuel Source Eligibility	Eligible for Self-Install
Building Envelope	Air Sealing		Electric Gas	No
Building Envelope	Attic Insulation		Electric Gas	No
Building Envelope	Cool Roof	Must be certified by Cool Roof Rating Council (CRRC)	Electric	No
Building Envelope	Floor Insulation		Electric Gas	No
Building Envelope	Radiant Barrier		Electric	No
Building Envelope	Wall Insulation		Electric Gas	No
Building Envelope	Window Film		Electric Gas	Yes
Building Envelope	Windows		Electric Gas	No
Data Centers	Airflow Management Devices		Electric	No
Data Centers	Aisle Containment		Electric	No
Data Centers	Aisle Layout Optimization	Separate hot and cold aisles	Electric	No
Data Centers	Efficient Network Equipment	Energy Star	Electric	Yes
Data Centers	Efficient Servers	Energy Star	Electric	Yes
Data Centers	Efficient UPS	Energy Star	Electric	Yes



Energy Saving Measure (ESM) List – Page 3 of 11

Measure Category	Measure	Requirements	IOU Fuel Source Eligibility	Eligible for Self-Install
Data Centers	Server Consolidation		Electric	No
Data Centers	Server Virtualization		Electric	No
Data Centers	Water- or Air-side Economizers		Electric	No
Food Service	Commercial Cooking Equipment	Energy Star griddles, ovens, steam cookers, or fryers	Electric Gas	Yes
Food Service	Commercial Dishwashing Equipment	Energy Star	Electric Gas	Yes
Food Service	Hot Holding Cabinets	Energy Star	Electric	Yes
Food Service	Low Flow Pre-Rinse Spray Valve		Electric Gas	Yes
Food Service	On-demand Hand Wrap Machine		Electric	Yes
Food Service	Ventilation Hood Controls		Electric Gas	No
HVAC	Air-Source or Ground-Source Heat Pumps		Electric Gas	No
HVAC	Air-Side and Water-Side Economizers		Electric	No
HVAC	Automatic Temperature Setpoint Controls		Electric	No
HVAC	Chilled Water Outdoor Temperature Reset		Electric	No
HVAC	Chiller Optimization Controls		Electric	No
HVAC	Chiller Replacement		Electric	No



Energy Saving Measure (ESM) List – Page 4 of 11

Measure Category	Measure	Requirements	IOU Fuel Source Eligibility	Eligible for Self-Install
HVAC	Cold Water Booster Pump	Variable speed pump with ECM motor	Electric	No
HVAC	Compressor or Condenser		Electric	No
HVAC	Condensate Recovery		Gas	No
HVAC	Cooling Tower Replacement or Retrofit		Electric	No
HVAC	Demand Controlled Ventilation		Electric Gas	No
HVAC	Dual Enthalpy Controls		Electric	No
HVAC	Duct Insulation		Electric Gas	No
HVAC	Duct Sealing (Existing)		Electric Gas	No
HVAC	Duct Sealing (New)		Electric Gas	No
HVAC	Energy Management System (EMS)	Replace pneumatic controls with DDC controls and SAT reset	Electric Gas	No
HVAC	Evaporative Cooling		Electric	No
HVAC	Furnace - Commercial		Gas	No
HVAC	Furnace - Residential		Gas	No
HVAC	Furnace Fan Brushless DC Motors	Brushless Permanent Magnet (BPM) or Electronically Commutated Motors (ECM) motors	Electric	No
HVAC	Gas Boilers - Commercial		Gas	No
HVAC	Gas Boilers - Residential		Gas	No



Energy Saving Measure (ESM) List – Page 5 of 11

Measure Category	Measure	Requirements	IOU Fuel Source Eligibility	Eligible for Self-Install
HVAC	Heat Recovery		Electric Gas	No
HVAC	Heat/Energy Recovery Ventilators		Electric Gas	No
HVAC	High Performance Circulator Pumps	Variable speed pump with ECM motor	Electric	No
HVAC	Hotel Guest Room Occupancy Temperature Controls		Electric Gas	No
HVAC	Infrared Gas Heaters		Gas	No
HVAC	Notched or Synchronous Drive Belts		Electric	Yes
HVAC	Outside Air Reduction		Electric Gas	No
HVAC	Packaged Terminal Air Conditioner (PTAC)		Electric	No
HVAC	Pipe Insulation		Electric Gas	No
HVAC	Rooftop Unit Controls	Must include VFD control of RTU supply fan speed	Electric Gas	No
HVAC	Smart Thermostat	Programmable and communicating thermostat	Electric Gas	Yes
HVAC	Split/Mini Split Air Conditioning Unit - Commercial		Electric	No
HVAC	Split/Mini Split Air Conditioning Unit - Residential	18 SEER or above	Electric	No
HVAC	Static Pressure Reset		Electric Gas	No



Energy Saving Measure (ESM) List – Page 6 of 11

Measure Category	Measure	Requirements	IOU Fuel Source Eligibility	Eligible for Self-Install
HVAC	Steam Trap Audit/Replacement		Gas	No
HVAC	Variable Air Volume		Electric Gas	No
HVAC	Ventilation Fans	Energy Star	Electric	No
HVAC	VFD on Compressor Motor		Electric	No
HVAC	VFD on Pump or Fan Motor		Electric	No
Industrial	Air Receiver Tanks for Load/No Load Compressors		Electric	No
Industrial	All-Electric Injection Molding Machines		Electric	No
Industrial	Compressed Air Cycling, Desiccant, and Heat Pump Dryers		Electric	No
Industrial	Compressed Air Leak Audit and Repair		Electric	No
Industrial	Compressed Air No-Loss Drains		Electric	No
Industrial	Compressed Air Pressure Reduction		Electric	No
Industrial	Exhaust Hood Controls		Electric Gas	No
Industrial	High Performance Circulator Pumps	Variable speed pump with ECM motor	Electric	No
Industrial	Notched or Synchronous Drive Belts		Electric	Yes
Industrial	Premium Efficiency Motors	Exceed EISA 2007	Electric	No
Industrial	Process Heat Recovery		Electric Gas	No
Industrial	Process Pump		Electric	No



Energy Saving Measure (ESM) List – Page 7 of 11

Measure Category	Measure	Requirements	IOU Fuel Source Eligibility	Eligible for Self-Install
			Electric	
Industrial	SCADA Systems		Gas	No
Industrial	VFD on Compressor Motor		Electric	No
Industrial	VFD on Process Pump or Fan Motor		Electric	No
Lighting	Controls: Indoor Daylight Sensors		Electric	No
Lighting	Controls: Indoor Networked Lighting Systems	DLC qualified Networked Lighting Control	Electric	No
Lighting	Controls: Indoor Vacancy Sensors		Electric	No
Lighting	Controls: Integrated Networked Lighting Systems	DLC qualified Networked Lighting Control	Electric	No
Lighting	Controls: Integrated Vacancy + Daylight Sensors	Sensors are integral to the light fixture	Electric	No
Lighting	Controls: Integrated Vacancy Sensors	Sensors are integral to the light fixture	Electric	No
Lighting	Controls: Outdoor Networked Lighting Systems	DLC qualified Networked Lighting Control	Electric	No
Lighting	Controls: Outdoor Occupancy Sensors		Electric	No
Lighting	LED Accent/Track Light Fixtures	Energy Star	Electric	No
Lighting	LED Case Light Fixtures	DLC qualified display case, horizontal refrigerated case, or vertical refrigerated case	Electric	No
Lighting	LED Ceiling Mount and Pendant Fixtures	Energy Star	Electric	No
Lighting	LED Decorative Lamps	Energy Star screw- or pin-base candle or globe	Electric	Yes
Lighting	LED Directional Lamps	Energy Star screw- or pin-base reflector	Electric	Yes
Lighting	LED Downlight Fixtures	Energy Star hard-wired recessed, surface, or pendant mount	Electric	No
Lighting	LED Downlight Screw-base Retrofit Kits	Energy Star recessed or surface mount; screw base retrofit	Electric	Yes



Energy Saving Measure (ESM) List – Page 8 of 11

Measure Category	Measure	Requirements	IOU Fuel Source Eligibility	Eligible for Self-Install
Lighting	LED Four-Pin Replacement Lamps	DLC qualified vertical or horizontal lamps; UL type A	Electric	Yes
Lighting	LED General Service Lamps	Energy Star screw- or pin-base standard A-type	Electric	Yes
Lighting	LED High/Low-Bay Fixtures and Retrofit Kits	DLC qualified high-bay, low-bay, or high-bay aisle	Electric	No
Lighting	LED Interior Directional Fixtures	DLC qualified wall wash or track	Electric	No
Lighting	LED Linear Ambient Fixtures and Retrofit Kits	DLC qualified direct or indirect linear	Electric	No
Lighting	LED Linear Replacement Lamps (TLED)	DL qualified T8 or T5; 2', 4', U-bend; UL types A, B, C	Electric	Yes
Lighting	LED Mogul Screw Base Replacement Lamps - Indoor	DLC qualified high- or low-bay; UL types B or C	Electric	Yes
Lighting	LED Mogul Screw Base Replacement Lamps - Outdoor	DLC qualified UL types B or C	Electric	Yes
Lighting	LED Outdoor Area Light Fixtures and Retrofit Kits	DLC qualified pole/arm-mounted area, decorative, wall-mounted, bollards, parking garage, canopy, flood, spot, stairwell	Electric	No
Lighting	LED Outdoor Wall, Porch, Post, and Security Light Fixtures	Energy Star wall, porch, post or security	Electric	No
Lighting	LED Street Light Fixtures and Retrofit Kits	DLC qualified pole/arm-mounted roadway	Electric	No
Lighting	LED Troffer Fixtures and Retrofit Kits	DLC qualified 2x2, 1x4, or 2x4	Electric	No
Lighting	LED Under-Cabinet and Cove Fixtures	Energy Star	Electric	No
Other	Energy Audits		Electric Gas	No
Other	Generator Circulating Block Heater		Electric	No



Energy Saving Measure (ESM) List – Page 9 of 11

Measure Category	Measure	Requirements	IOU Fuel Source Eligibility	Eligible for Self-Install
Other	IOU/REN/CCA Rebate - Other	Measure not elsewhere on this list for which Participating Contractor or Eligible Finance Customer seeks an IOU/REN/CCA rebate or incentive.	Electric Gas	No
Other	Plug Load Controls	icontent of the chive.	Electric	Yes
Pools	Gas Pool Water Heater	Energy Star	Gas	No
Pools	Heat Pump Pool Water Heater	Energy Star	Electric	No
Pools	Pool Covers (Electric Heater)		Electric	Yes
Pools	Pool Covers (Gas Heater)		Gas	Yes
Pools	Pool Pump Motor	Energy Star	Electric	No
Pools	VFD on Pool Pump Motor		Electric	No
Refrigeration	Add Doors to Open Case		Electric	Yes
Refrigeration	Add Insulation to Refrigerant Lines or Storage Tanks		Electric	No
Refrigeration	Air Curtains		Electric	No
Refrigeration	Anti-Condensation Door/Frame Heater Control		Electric	No
Refrigeration	Auto-Close Doors for Walk-in Coolers and Freezers		Electric	No
Refrigeration	Commercial Ice Machines	Energy Star	Electric	Yes
Refrigeration	Commercial Refrigerators and Freezers	Energy Star	Electric	Yes
Refrigeration	Compressor Unit		Electric	No
Refrigeration	Condensing Unit		Electric	No
Refrigeration	Evaporator Defrost Control for Freezers		Electric	No



Energy Saving Measure (ESM) List – Page 10 of 11

Measure Category	Measure	Requirements	IOU Fuel Source Eligibility	Eligible for Self-Install
		Brushless Permanent Magnet (BPM) or Electronically		
Refrigeration	Evaporator Fan Brushless DC Motors	Commutated Motors (ECM) motors	Electric	No
Refrigeration	Evaporator Fan Motor Controls		Electric	No
Refrigeration	Floating Head Pressure Controls		Electric	No
Refrigeration	Low Charge Ammonia		Electric	No
Refrigeration	Low Energy Anti-Condensation Doors		Electric	No
Refrigeration	Rapid Close Doors for Refrigerated Warehouses		Electric	No
Refrigeration	Reach-in Refrigerators and Freezers	Energy Star	Electric	Yes
Refrigeration	Refrigerated Case Door Strips		Electric	No
Refrigeration	Refrigerated Case Night Cover		Electric	Yes
Refrigeration	Variable Refrigerant Flow		Electric	No
Refrigeration	Vending Machines	Energy Star	Electric	Yes
Refrigeration	VFD on Refrigeration Pump or Fan Motor		Electric	No
Water Heating	Faucet Aerator (Electric Hot Water)		Electric	Yes
Water Heating	Faucet Aerator (Gas Hot Water)		Gas	Yes
Water Heating	Faucet Laminar Flow Restrictors (Electric Hot Water)		Electric	Yes
Water Heating	Faucet Laminar Flow Restrictors (Gas Hot Water)		Gas	Yes
Water Heating	Heat Pump Water Heater	Energy Star	Electric	No
Water Heating	Low Flow Shower Heads (Electric Hot Water)		Electric	Yes



Energy Saving Measure (ESM) List – Page 11 of 11

Measure Category	Measure	Requirements	IOU Fuel Source Eligibility	Eligible for Self-Install
Water Heating	Low Flow Shower Heads (Gas Hot Water)		Gas	Yes
Water Heating	Ozone Laundry System (Electric Hot Water)		Electric	No
Water Heating	Ozone Laundry System (Gas Hot Water)		Gas	No
Water Heating	Shower Thermostatic Valve (Electric Hot Water)		Electric	No
Water Heating	Shower Thermostatic Valve (Gas Hot Water)		Gas	No
Water Heating	Tank Insulation (Electric Hot Water)		Electric	Yes
Water Heating	Tank Insulation (Gas Hot Water)		Gas	Yes
Water Heating	Tankless Water Heater (Electric)		Electric	No
Water Heating	Tankless Water Heater (Gas)	Energy Star	Gas	No
Water Heating	Water Heater (Gas)	Energy Star	Gas	No

