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**PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

**ENERGY DIVISION** **RESOLUTION E-5072**
**April 16, 2020**

# R E S O L U T I O N

Resolution E-5072. Disposition of the Residential Energy Efficiency Assistance Loan Program (REEL) pursuant to Decision 17-03-026.

PROPOSED OUTCOMES:

- Approves the transition of the REEL program from a pilot to a full-scale program.
- Continues the role of the California Alternative Energy and Advanced Transportation Financing Authority (CAEATFA) as the administrator of the REEL program.
- Authorizes funding for administration of the program while the California Public Utilities Commission (CPUC) considers whether or how to address longer-term budget authorization and allows the administrator to shift funds to continue administration and make enhancements while awaiting future direction.
- Continues utility activities to support administration and marketing, education, and outreach for the energy efficiency financing program and pilots until the CPUC gives further direction.

SAFETY CONSIDERATIONS:

- There is no direct effect on safety. However, energy efficiency measures installed due to available financing will, in the short run, lead to improved comfort and indoor air quality for customers. In the long run, financed energy efficiency measures will reduce harmful pollutants and greenhouse gas emissions, which will positively impact health and help to mitigate climate change.

ESTIMATED COST:

- Allows the shifting by the energy efficiency financing administrator of already-allocated funds to cover costs of administration until the CPUC adopts a decision on a long-term budget.

## SUMMARY

Pursuant to California Public Utilities Commission (CPUC) Decision (D.) 17-03-026, Ordering Paragraph 9, this draft Resolution: summarizes the most recent reporting and evaluation of the Residential Energy Efficiency Assistance Loan (REEL) program; transitions the REEL program from a short-term pilot into a full-scale program with continuing administration by California Alternative Energy and Advanced Transportation Financing Authority (CAEATFA); continues funding in the short term while the CPUC considers whether or how to address long-term budget authorization; continues the utilities' Information Technology (IT) and marketing support for energy efficiency financing pilots at the current levels in the short term while the CPUC develops further direction, and; recommends extending a statewide financing Marketing, Education, and Outreach (ME&O) contract to support REEL and other financing pilots.

## BACKGROUND

In Decision (D) 12-05-015, the CPUC envisioned a long-term goal of developing new, scalable, and leveraged financing products to overcome the first cost of energy efficiency upgrades and induce customers to participate in projects that produce deeper energy savings than would be achieved utilizing mostly traditional program approaches such as audits, rebates, and access to consumption data.[1]

In D.12-11-015, the CPUC approved up to $75.2 million[2] of ratepayer funds for innovative and new energy efficiency financing pilots. However, the actual design of the energy efficiency financing pilots was deferred to a later Decision.

D.13-09-044 implemented and expanded incentives for financing options for energy efficiency improvements across all market sectors.[3] Relevant CPUC directives in this decision include:

- The allocation of $65.9 million to launch selected pilots designed to test whether incentives stimulate markets to attract private capital, through investment of limited ratepayer funds.[4]

[1] D.12-05-015, pp. 112-13.
[2] D.12-11-015, Table 7, pp. 66-67.
[3] D. 13-09-044, p. 2.

- Authorization for California Alternative Energy and Advanced Transportation Financing Authority (CAEATFA) to establish a "hub" for the finance pilots. The hub is called the California Hub for Energy Efficiency Financing (CHEEF).[5]
- A focus on the goal of expanding access to financing instruments by key customer segments, in particular customers underserved by existing energy efficiency financing and programs.
- Leveraging of limited ratepayer energy efficiency funds for credit enhancements, which function as a loan loss reserve, to provide incentives to lenders to extend or improve credit terms for energy efficiency projects. In this form of credit enhancement, a percentage of a loan is set aside to cover the lender's potential losses.
- Testing whether transitional ratepayer support for credit enhancement can lead to self-supporting energy efficiency finance in the future.[6]

D.17-03-026 addressed a number of issues related to the energy efficiency pilot programs, including:

- Where there is ambiguity or the absence of explicit direction, CAEATFA is fully authorized as the decision-maker for these pilots, utilizing its own public input and rulemaking processes, as needed.[7]
- The CPUC will provide for energy efficiency program funding to support the pilot programs for their full lifecycle, i.e., for the full duration of pilot program operation and loan servicing, primarily through funding already authorized in D.13-09-044.[8]
- Any pilot not launched by December 31, 2019, will be canceled.[9]
- The funding authorized for CAEATFA, both for loan purposes and CAEATFA administrative expenses, should cover the costs of pilot program launch and servicing at least through the end of 2020. If additional funding is needed after that time, the CPUC will work with

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[4] Id., OP 1.
[5] Id., pp. 15-17.
[6] Id.
[7] D.17-03-026, p. 10 and OP 2.
[8] Id., pp. 11-12.
[9] Id., p. 11. and OP 4.

CAEATFA to ensure that funding is adequate to cover the required activities to ensure successful completion of the pilot programs.[10]

- Each pilot program will be subject to a mid-point evaluation (e.g., as a workshop) at or around one year of operation.[11]
- CPUC staff shall draft a resolution for consideration of appropriate metrics for determining the long-term disposition of each financing pilot program at or around one year of each pilot program's operation.[12]
- Each pilot will continue in operation until such time as the CPUC makes a determination about its permanent status (i.e., continue as a full-scale program, modify, or close).[13]
- Metrics are required to be established (through one or several resolution(s)) for each pilot program that will begin to be evaluated after one year of operation. The metrics selected should focus on the definition of success for each of the pilots beyond just customer uptake or number of transactions, with an ultimate focus on value-added toward achieving energy savings.[14]
- For the pilots, the CPUC will commence evaluation efforts after one year of operation and begin a full evaluation after two years to consider the long-term disposition of each pilot program.[15]
- After the second year of each pilot program's operation, CPUC staff shall bring forward a resolution summarizing the most recent reporting information about the pilot, the evaluation results, staff's recommendation for long-term disposition, and any other information that will allow the CPUC to decide the permanent status of each pilot program.[16]

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[10] Id., p. 12.
[11] Id., p. 3.
[12] Id., OP 8.
[13] Id., p. 3.
[14] Id., p. 27.
[15] Id., pp. 26-28.
[16] Id., OP 9.

- For pilots that are considered good candidates for full-scale implementation, the CPUC can evaluate whether to require incorporation into the rolling portfolio business plan process at that time. The staff resolution should contain a recommendation for full-scale incorporation in the business plan process, but the exact nature of that incorporation may require formal action in the relevant energy efficiency proceeding, depending on business plan timing.[17]
- If the pilots are successful, we suspect the Legislature may want to ensure permanent support for this supplemental set of mechanisms via authorizing legislation.[18]

Related Workshops

As directed by D.17-03-026, CPUC staff held a workshop on May 19, 2017, to hear from parties and discuss potential metrics for assessing the performance of the energy efficiency financing pilots, especially the Residential Energy Efficiency Assistance Loan (REEL) program. The May 19, 2017 workshop also covered the Evaluation, Measurement, and Verification (EM&V) Roadmap to complement the discussion of metrics.

Also directed by D.17-03-026, CPUC staff held a mid-point review workshop for the REEL program on August 2, 2017, during which metrics for assessing energy efficiency financing pilots in general, and the REEL program in particular, were further discussed by parties.

Resolution E-4900 for Consideration of Appropriate Metrics

Resolution E-4900, issued on December 14, 2017, adopted metrics as tools to contribute to the determination of the long-term viability of EE financing pilots. In the Resolution, the CPUC ordered the adopted metrics listed as Attachment 1 to this Resolution to be utilized by the CPUC along with other considerations to assess the results of the REEL pilot.

Evaluation Studies and Reports

[17] Id., p. 28.

[18] Id., p. 12.

In addition to the above-referenced decisions, and rulings, several ratepayer-funded evaluations have been conducted on the REEL program. These include but are not limited to:

*Final CPUC REEL Pilot Impact Evaluation Considerations, December 29, 2017*[19]

This document was meant to serve as a starting point to consider how to conduct an evaluation of the REEL program and what issues would need to be addressed. The document presented recommendations for the upcoming impact evaluation based on loans issued through the program between July 2016 and July 2018. This document summarized the information that Opinion Dynamics and Dunsky Energy Consulting collected to monitor the REEL Pilot, assessed its data tracking, and developed ways to evaluate it for energy savings and cost-effectiveness. The information contained in this document was collected and analyzed between 2015-2017.

*PY 2014 Finance Residential Market Baseline Study Report, March 2016* [20]

The purpose of this study was to identify the characteristics of the market for financing products for energy efficient upgrades. As a "baseline," this study provided a "snapshot" of the market before the statewide residential energy efficiency financing pilots (pilots) launch. This study helped develop an understanding of the market for energy efficiency financing and provided a baseline measurement of the market to help assess market transformation over time. Further, because at the time of completion of this report the pilots were not launched yet, this study had the potential to inform their design. Some of the pertinent findings were:

- About one-third of homeowners completed energy-related upgrades in the last two years, but only a small fraction of them (one-quarter) used any type of financing.

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19 This report was prepared by Opinion Dynamics and Dunsky energy consulting for the CPUC

20 This document can be accessed through the following link: http://www.calmac.org/publications/PY2014_Residential_Finance_Market_Baseline_Volume_1_FINAL.pdf.

- Customers typically used conventional financing rather than energy efficiency-specific financing.
- Awareness of energy efficient financing is low among homeowners.
- The opportunity for financing to help fund and grow energy-related projects in the near future is significant.
- High interest rates for non-EE financing products prevent many homeowners from financing EE upgrades, but the upcoming Pilots may help overcome this barrier since EE financing interest rates are significantly lower than market interest rates.
- Contractors are aware of energy efficient financing options, but only a small portion promote them directly.

Overall this study indicated that the pilots are targeting segments of the energy-related upgrade market that have limited access to energy efficiency financing and conventional lending products.

*Statewide Finance Pilot Marketing, Education, and Outreach Process Evaluation, November 17, 2017*[21]

This report presents the results of a process evaluation of the new California Statewide Financing Pilots' Marketing Education & Outreach (ME&O) Campaign ("the Campaign") that began in June 2017. The Campaign's foundational activities were designed to eventually lead to the following longer-term objectives:

- Increased Strategic Partner awareness and understanding of Financing Pilot opportunities available to the relevant market sectors;
- Increased Strategic Partner communications with target customers (potential borrowers) about Financing Pilot opportunities;
- Increased target customer awareness of the availability of financing and the key differentiating benefits of the Financing Pilots; and
- Increased volume of target customers taking initial action to seek financing.

Some of the conclusions were:

[21] This document can be accessed here: http://www.calmac.org/publications/MEO_Finance_Study_Report_FINAL12.28.2017V2.pdf.

- The Campaign has developed a strong core theory of market facilitation with a clear path for reaching the customer.
- Financial Institutions report that the Campaign has been generally supportive of their needs and that they have seen an uptick in customer interest in energy efficiency financing.
- The fundamental data tracking systems are in place to assess Campaign progress towards its goals. The Campaign has several highly detailed tracking systems in place to support evaluation, including a monthly metrics report with key performance indicators (KPIs) for each campaign activity, a monthly budget tracker, and a day-to-day marketing activity tracker.

*Energy Division Mid-Point Review Document, November 2016*

In November 2016, Energy Division developed a mid-point review document that provided background information, described the reasons for the CPUC's interest in energy financing, discussed the reasons for cost overruns and uncertainties among the pilots, discussed CAEATFA's budget, and considered lessons learned at that point from the pilots.

*Energy Division Workshop Report, November 14, 2016*

At the time of the mid-point review workshop for the REEL program, Energy Division provided a workshop report that contained summaries of the presentations at the workshop, which were by Energy Division, CAEATFA, the Center for Sustainable Energy (which is the marketing, education, & outreach contractor for the pilots), and the investor-owned utilities. In CAEATFA's presentation, it described benefits of the pilots, reasons that REEL products appeal to customers, loan volume, contractor engagement, strategic decisions made to save funds, infrastructure challenges, timelines, and more. The Center for Sustainable Energy discussed its marketing strategies, its approach to working with contractors, its work to engage local governments, community-based organizations, and the utilities, its work on direct-to-consumer marketing services, digital ads, Facebook ads, search engine optimization, analytics, and more.[22] The utilities covered their marketing efforts, contractor outreach, and consumer-facing materials, and more.

*Residential Energy Efficiency Loan Assistance Pilot-Impact Evaluation, January, 2020*[23]
The purpose of this study, referred to throughout this resolution as "the Study," is to evaluate the first two years of the REEL program[24] with the overarching goal of determining how well the pilot met metrics set in Resolution E-4900 and achieved or addressed the goals originally set by the CPUC in D.12-05-015 and the subsequent decisions, rulings. Beyond metrics set in the Resolution E-4900, the Study explored additional performance indicators to provide the CPUC with findings and suggestions to determine if and how a ratepayer supported mechanism can help remove or reduce hurdles for potential EE customers. These performance indicators addressed issues including:

- Characteristics of participation
- Energy savings
- Influence of REEL on the market
- Costs vs. benefits to run the Pilot
- Stakeholders' perspectives on the design and implementation approach
- Potential to further scale the pilot to a full program
- Comparison of the REEL model to other models in practice outside California
- Changes and trends since 2012[25]

The findings in this evaluation are based on a review of the data that the pilot tracks; surveys with 49 of the first 212 participating customers; surveys with 57 participating finance contractors; in-depth interviews with CAEATFA staff and participating lenders and Pacific Gas and Electric Company, Southern California Edison Company, Southern California Gas Company, and San Diego Gas & Electric Company, collectively referred to as the large investor-owned utilities

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22 Some of these materials can be found at the following link: https://www.treasurer.ca.gov/caeatfa/cheef/quarterly/2019/20190630.pdf.

23 The full text of this study is attached as Appendix 2.

24 The first two years start with the first loan issued, which was in July 2016.

25 D.12-11-015.

(IOUs); a cost/benefit analysis; and secondary research. These findings are summarized in the Discussion section of this resolution.

## NOTICE

Notice of this proposed resolution was made by publication in the CPUC's Daily Calendar. A copy of this proposed resolution was also served on the R.13-11-005 service list.

## DISCUSSION

In D.12-11-015 and D.13-09-044, the CPUC laid the groundwork for an administrator to create the REEL and other energy efficiency financing pilots by allocating ratepayer funds to test financing as a mechanism to make energy efficiency improvements more accessible to residential homeowners, to attract private capital to increase the volume of energy efficiency financing, and to help customers save energy and money on their bills particularly for residents in low- and moderate-income markets. These goals remain priorities for the CPUC. The lessons learned from the REEL program are important for informing future financing pilots and decisions, not only with regard to energy efficiency financing, but also to energy financing more broadly, and for future pilots in other states as well as in California.

At the metrics and EM&V roadmap workshop held on May 19, 2017, stakeholders discussed goals of the pilots and related metrics. At the mid-point review workshop for the REEL program held on August 2, 2017, parties further discussed measures to better assess energy efficiency financing pilots and the REEL program and lessons learned. Presentations by CAEATFA, the IOUs, an EM&V contractor, and a marketing, education, and outreach (ME&O) contractor supported the consideration of energy efficiency financing pilots. This stakeholder participation, the evaluation study of the REEL program, and the achievement of metrics set by Resolution E-4900, have shown that the pilot has made progress toward achieving these goals, although at higher cost and at a slower pace than had been envisioned. The final evaluation report is provided as Appendix 2 of this resolution and carries particular weight in our analysis.

*Summary of Findings from the Residential Energy Efficiency Loan Pilot-Impact Evaluation, January 2020 ("the Study")*[26]

As mentioned above, the purpose of this evaluation, referred to throughout this resolution as "the Study," is to evaluate the first two years of the REEL program with the overarching goal of determining how well the pilot met the metrics set in Resolution E-4900 and achieved or addressed the goals originally set by the CPUC in D.12-05-015 and the subsequent decisions, rulings.

The Study found that the REEL met expectations primarily based on metrics established in Resolution E-4900. REEL provided the residential market an energy efficiency financing tool that was not available to those who either did not have or were not willing to extend upfront capital to implement an energy efficiency project; produced energy savings; had influence on customer decision-making to undertake an energy efficiency project; reached underserved areas; gained support of lenders and contractors; and showed potential for scalability. However, REEL has been expensive to run administratively and will need ratepayers' support for years to come.
The Study determined that the REEL pilot has developed infrastructure with the capacity to be scaled up to greater market size. The consistent performance of adding more loans to the REEL portfolio even after the first two years of pilot operation, as well supportive reactions of lenders and contractors, was a positive indicator that current infrastructure can support a scaled-up REEL program.

The Study found energy savings that could be attributed to financing. The Study found that these saving were on average 12.8 percent of the customer's gross annual electric usage and 2.6 percent of their gross annual gas usage, which amounts to 741 kilowatt hours (kWhs) and 11 therms in annual savings per participant. It found that 41 percent of the electric savings and 54 percent of the gas savings were at least partially due to REEL financing. As for the electrical savings, approximately 300 kWhs of savings could be attributable to REEL financing.

The most salient findings of the REEL evaluation study are as follows:

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[26] The full text of this study is attached as Appendix 2.

A. Characteristics of Pilot Participants

- The pilot enrolled four credit unions,[27] made 212 loans in its first two years,[28] and had a total loan volume of $3.7 million[29] in private capital funding at the end of year two.
- The Loan Loss Reserve (LLR) funds made available to mitigate lenders' risk for these loans were $475,000.
- Participation was largely concentrated in one lender, California Coast Credit Union (CU), which represented 71 percent of the private capital attracted. Matadors Community CU came second with 23 percent.
- Because most loans were issued in the second year of operation, the evaluation contractor did not have enough historical data to assess the risk associated with defaulted loans. During the evaluation period only one loan defaulted, and six percent of the loans were paid off early.[30]
- Measuring by household income or census track, one-third of borrowers were from "underserved" populations. However, measuring by FICO[31] scores, only 8 percent might be considered credit-challenged, with FICO scores of 640 or below.
- The REEL program recruited and certified over 280 financing partners and collectively they serve most counties in the state.[32]
- The average REEL borrower received a $17,000 loan and will be paying $200 per month for 10 years at 7 percent interest.

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27 The pilot has now operated for an additional year and currently has seven credit unions, two of which operate statewide.

28 As of the end of June 2019, 446 loans. See, CHEEF Quarterly Report & Program Status Summary, 2nd Quarter, 2019. Available at: https://www.treasurer.ca.gov/caeatfa/cheef/quarterly/2019/20190630.pdf.

29 As of the end of June 2019, total $7.54m. Id.

30 The default rate has stayed low to date but could rise, particularly if there is an economic downturn. Regarding the early paid off loans, this might be a new unexplored opportunity for REEL (and other pilots) to consider a niche market for "bridge loans," i.e. those customers who need short term funds to implement EE projects and will repay the loan close to the time of project completion.

31 FICO is an abbreviation for the Fair Isaac Corporation, the first company to offer a credit-risk model with a score.

32 As of the end of June 2019, this number was 341. See, CHEEF Quarterly Report & Program Status Summary, 2nd Quarter, 2019. Available at: https://www.treasurer.ca.gov/caeatfa/cheef/quarterly/2019/20190630.pdf.

B. The Pilot's Effect on Energy Savings

- Participants, on average, saved 12.8 percent of their gross annual electric usage and 2.6 percent of their gross annual gas usage, which amounts to 741 kWhs and 11 therms in annual savings per participant. The electric savings resulting from participation REEL are similar to the savings from the statewide Residential HVAC and Advanced Home Upgrade Programs, however gas savings are lower for the REEL participants.
- Among customers participating in the pilot, the evaluation contractor found that around 41 percent of electric savings and 54 percent of gas savings could be explained by REEL financing. That is, participation increased savings by those amounts over what would have occurred otherwise.
- Customers' desire to lower energy bills, increase comfort, and repair existing equipment were the major factors in decisions to participate. Affordability of a project was not necessarily the critical decision-making factor.
- The evaluation contractor found that approximately 27 percent of projects would not have happened if there had not been an opportunity to use the REEL program, 25 percent of projects would have happened even without the REEL program, and 48 percent of the projects were partially influenced by the REEL program.

C. Costs and Benefits

- In fiscal year 2017–2018, the pilot spent close to $1 million to cover costs associated with managing the LLR (bank trustee fees, master servicer), administration (operating expenses and equipment, employee benefits, and salaries), and funding for contractors and consultants.
- The REEL program in its current structure is not cost effective when assessed using the Total Resource Cost Test (TRC) or Program Administrator Cost Test (PAC) due to heavy administrative and LLR costs. Administrative costs make up 30 percent to 40 percent of total costs, and LLR management costs make up 25 percent to 35 percent of total annual costs.
- The loans are cost-effective for participants when the assessment is done using the Participant Cost Test (PCT).

**Cost-effectiveness results for the REEL Pilot**[33]

| Program Evaluated | Cost-Effectiveness Results (Financing Program Model) | | | |
|---|---|---|---|---|
| | Participant Cost Test (PCT) | Program Administrator Cost (PAC) | Total Resource Cost (TRC) | Societal Cost Test (SCT) |
| REEL Pilot (excluding start-up costs) | **1.09** | **0.14** | **0.50** | **0.57** |

- REEL creates societal and environmental benefits not captured in the PCT, PAC, and TRC quantitative tests, such as improving lives in underserved communities, reducing energy poverty, improving people's health, and improving value of housing stock. The Societal Cost Test (SCT seeks to recognize these kinds of non-monetary benefits, and when measured by the SCT the cost effectiveness of the REEL increases.

D. REEL vs. Other Models

- Comparing the REEL program to similar financing programs in New York, Michigan, Oregon, Connecticut, and Colorado, revealed that:
  - Unlike REEL they also cover non-energy efficiency measures.
  - REEL has complex set-up and reporting requirements that make it more expensive to operate.
  - There are practices that REEL can adopt to improve accessibility to underserved communities, for example to further reduce the annual percentage rate of interest (APR).
  - Most other states' programs were successful at recruiting and using multiple local community lenders.[34]
  - REEL incurs higher LLR-related costs than these other programs due to complex reporting requirements.

E. Stakeholder Perspectives on REEL

- Lenders would not be able to offer the same interest rates, terms, and loan amounts without the LLR.

33 Extracted from Table 25 of the Study.

34 The REEL was much more successful with statewide credit Unions, as most loans have been issued by the two statewide CUs.

- Lenders did not view Property-Assessed Clean Energy (PACE) favorably, and this presents an opportunity for REEL.
- CAEATFA has built strong partnerships with lenders. Lenders reported high satisfaction with REEL and CAEATFA.
- Most contractors who promote REEL say it is helpful in selling energy efficiency projects, and 72 percent of REEL-certified contractors surveyed are promoting REEL actively.
- Lenders favor using more automation and reducing reporting from monthly to quarterly.
- There are opportunities to improve marketing. Utility bill inserts tend to drive most loan applications, for example, and could be used more.
- Most contractors who choose not to promote REEL believe that it requires too much of their time for administration and sales, that customers are not interested in it or prefer other financing options, or that the REEL program is too restrictive.
- Contractors who promote REEL actively find it helpful in selling energy efficiency projects.
- CAEATFA believes that the REEL program's status as a pilot hinders growth, that scaling won't happen without participation of a large lender, and that the REEL program should add non-energy efficiency measures to grow.
- Stakeholders do not view energy efficiency loans (even at low interest rates) as a solution for reaching truly low-income borrowers.

F. Scalability

- Since issuing its first loans in Q3 2016, the pilot has steadily increased its loan volume and now has momentum for future growth.
- The REEL program has the infrastructure needed to scale-up in the future if it is authorized to do so.
- Scaling up alone will not be sufficient for the REEL program to become cost effective because many of the program's costs increase in parallel to the increase in loan volume.
- The program will have to be modified if it is to become cost effective, such as by going beyond energy efficiency measures to include other technologies, signing up larger lenders, increasing marketing and awareness of REEL, streamlining operations, reducing Loan Loss Reserve ratios, and/or administering the LLR internally.

- Further scaling up would require enrollment of a larger volume lender with physical branches covering more of the state.
- Further investments in IT systems to streamline loan applications could also help increase loan volume and attract more lenders.

G. Self-Supporting Program Over Time

- The program's current administrative costs pose a significant barrier to it becoming cost-effective, particularly if REEL continues to generate only modest loan volumes.
- If the REEL program could generate larger loan volume, it would have a higher self-supporting potential.
- If the REEL program were to expand beyond energy efficiency measures to include for example solar PV, building decarbonization measures, electric vehicles, and upgrades to surpass existing building codes, it might reach a goal of becoming self-supporting/not needing ratepayer funds.
- A self-supported program would have many fewer restrictions than the current pilot, as it would not be subject to the rules that govern the use of ratepayer money.
- It would take years for the program to stand on its own and not need ratepayer funds, even with innovations designed to help make it self-sufficient.

H. Changes in Marketplace

- The CPUC should take into consideration how much has changed in the California marketplace since the CPUC first decided to test financing pilots in 2012.
- Some of the changes in the marketplace are: declining interest in PACE as a financing model, the increasing cost of avoiding carbon, increasingly aggressive state energy reduction and renewable goals, a declining trend in cost-effectiveness of energy efficiency programs, an increase in solar adoption, increasing interest in electrification and energy storage, and emerging climate change impacts.

*Short-Term Direction for Administration of Energy Efficiency Financing*

The CPUC finds that the REEL model of financing can fulfill a market need that is not fully addressed by other financial products available in the market. Most other conventional financing models including personal credit cards or credit lines, home equity credit, Property Assessed Clean Energy (PACE), or home improvement loans lack one or more of the components of REEL financing model. REEL loans have the advantage of offering no upfront cost, no need for the customer to put any asset as collateral, up to 100 percent financing, lower than comparable market rates, and a less stringent loan process than customers would otherwise be required to meet. We conclude that REEL has revealed scalability potential, has been able to reduce hurdles in energy efficiency financing for underserved low- and middle-income and disadvantaged customers, and can save energy.

The lessons learned from the REEL program and other California energy efficiency pilots can inform future decisions about financing programs in California and beyond. Continuing the REEL program as a full-scale program will provide more years of data on what has worked, not worked, and might be modified to make improvements. The state needs this guidance in order to formulate successful future energy financing programs. The REEL is also providing energy savings and bill savings to customers and reaching Californians who have not been served by other types of energy financing. Therefore, the CPUC will continue the REEL as a full-scale program.

CAEATFA carried out extensive regulatory, budgeting, staffing and administrative work during the pilot's inception and management. As CAEATFA is also administrating a small business financing pilot and is in the process of launching an affordable multifamily financing pilot, it can share information technology and other costs among the initiatives to capture synergies and save funds. If the CPUC were to select a REEL administrator other than CAEATFA, the functioning of the program could be disrupted during the transition and the synergies among the energy efficiency pilots could be lost. Therefore, we will continue to authorize CAEATFA to serve as the administrator of the REEL.

During the period between continuation of the REEL as a full-scale program but before the REEL's administrator receives long-term direction from the CPUC on the activities and budgets of the program, CAEATFA will need to make adjustments to maintain and enhance the program in order to allow it to scale. To provide the REEL the most opportunity to succeed in this interim period, this resolution authorizes CAEATFA to make enhancements to the REEL during the period before the next CPUC decision on energy financing.

As stated above, D.12-11-015 authorized a total of $75.2 million for financing pilots. Of that, $41.9 million is reserved in a credit enhancement. Furthermore, D.17-03-026 authorized funds for CAEATFA's administrative expenses to cover the costs of pilot programs launch and servicing at least through the end of 2020.[35]

Should administrative funds become exhausted before the Commission issues further direction financing programs, CAEATFA presented the CPUC Energy Division with three budget scenarios for the use of funds to maintain and enhance the energy efficiency pilots for fiscal years 2020-2021 and 2021-2022 with some growth in budget allowed to enable improvements to practical and administrative functions and enable the financing to scale. These budget scenarios would not require the authorization of new funding from the CPUC to CAEATFA. Rather, the budgets may be supported by shifting funds from the already authorized credit enhancement funds.

As presented by CAEATFA, a high budget scenario, which includes the best enhancements to scale the existing REEL pilot, would involve shifting $7.7 million of existing credit enhancement funds to support administrative needs to carry the set of pilots and program through June 2022, unless new direction comes from the CPUC sooner. A mid-level scenario would use $6.7 million of credit enhancement funds, and a barebones scenario would use $5.9 million of credit enhancement funds.

The CPUC finds it reasonable to shift funds from the existing credit enhancement pool to support administrative and IT budget for CAEATFA for the interim period while awaiting future long-term direction from the CPUC. Furthermore, to provide the most opportunity for energy efficiency financing to succeed, the CPUC supports CAEATFA spending at the high-level scenario. Spending at this level will support IT and administrative enhancements such as for CAEATFA to: (i) bring loan performance reporting in house instead of using a contractor, which may save funds over the long term; (ii) develop new contractor recruitment and credit union recruitment; (iii) conduct outreach through community choice aggregators and local governments, and; (iv) fix and improve computer systems.

Specifically, for the high scenario, the fiscal year 2020 to 2021 budget for administering the energy efficiency program and pilots and maintaining or

35 D.17-03-026, Finding of Fact #6 and Conclusion of Law #21.

improving IT support would be projected at $4.2 million. For fiscal year 2021 to 2022, the projection would be $5.3 million. Therefore, the budget for those two years would be projected at $9.5 million. Funds already allocated by previous decisions are adequate to cover much of this work for the next two fiscal years. Should these funds become exhausted before the CPUC issues further direction on budget matters, this resolution directs CAEATFA to shift funds from its already-allocated credit enhancement pool to support administrative budgets during the gap time before a new long-term budget is allocated by the CPUC. CPUC staff has reviewed budget projections provided by CAEATFA and is monitoring the amounts and activities of these potential enhancements to the REEL so as to optimize the use of ratepayer funds and pursue optimal results for the program.

Stakeholders have expressed an interest in launching future energy financing programs that go beyond energy efficiency measures to include energy storage, demand respond programs, resiliency measures, customer generation, and other priorities. However, the enhancements discussed above do not include expanding the scope of the REEL to offer non-energy efficiency products such as energy storage technology or customer generation technologies. Changes to expand the scope of the program would require the CPUC to consider them in a broader context and a different proceeding, since the funds may need to be allocated from multiple sources.

This resolution also continues support from the IOUs for the energy efficiency financing pilots for administration, IT, and marketing and related costs, with funding for those activities continued at the present level until the CPUC provides future direction. CPUC Decision 17-03-026[36] authorized funds for IOUs to spend for IT, marketing, and administrative costs necessary to support the financing pilot programs from 2017 through the end of 2020. This resolution authorizes the IOUs to continue to draw those funds at their current level until the CPUC provides new direction. The IOUs shall continue to file budget requests in the same manner as set forth in D.17-03-026 or shall use their Annual Budget Advice Letters to file the budget requests, and they may use new energy efficiency business plan filings in the future if it becomes appropriate.

36 D.17-03-026, OP 7.

The current contract between SoCalGas as the statewide lead for financing and the ME&O contractor will expire in September of 2020. This resolution authorizes SoCalGas to extend the contract for ME&O to support the energy efficiency program and pilots, with funding continued at the present level until the CPUC provides new direction. The IOUs shall continue to provide these funds in the same manner and in the same amount that they have already been doing.

## COMMENTS

Public Utilities Code section 311(g)(1) provides that this resolution must be served on all parties and subject to at least 30 days public review and comment prior to a vote of the CPUC. Section 311(g)(2) provides that this 30-day period may be reduced or waived upon the stipulation of all parties in the proceeding.

The 30-day review and 20-day comment period for the draft of this resolution was neither waived nor reduced. Accordingly, this draft resolution was mailed to parties for comments, and will be placed on the Commission's agenda no earlier than 30 days from today.

## FINDINGS

1. D.12-11-015 approved up to $75.2 million of ratepayer funds for innovative and new energy efficiency financing pilots.[37]

2. D.13-09-044 further defined the design of the energy efficiency pilots and implemented and expanded financing options for energy efficiency improvements.[38]

3. D.17-03-026 addressed a number of issues related to the energy efficiency pilot programs and expanded CAEATFA's ability to make decisions to enhance the energy efficiency financing pilots and increase the pilots' opportunity for success.[39]

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[37] D.12-11-015, Table 7, pp. 66-67.
[38] Id., pp. 15-17.
[39] Id., p. 14.

4. D.17-03-026 expected funds authorized for CAEATFA's administrative expenses to cover the costs of pilot programs launch and servicing at least through the end of 2020.

5. The final evaluation study of the REEL, and analysis of metrics set by Resolution E-4900, found that the REEL made considerable progress in working toward the CPUC's goals for energy efficiency financing and attracting private capital to work toward the state's goals, even though the REEL took longer to launch than had been foreseen and had lower cost effectiveness results.

6. It is reasonable to shift funds from the existing credit enhancement pool to support administrative and information technology budget for CAEATFA until the CPUC provides new long-term direction on the budget for administration of energy efficiency financing.

7. To provide the most opportunity for energy efficiency financing to succeed, the CPUC supports CAEATFA spending at the high-level budget scenario until the CPUC provides new long-term direction.

8. Program enhancements discussed in this Resolution do not include expanding the scope of the REEL to offer non-energy efficiency products such as energy storage technology or customer generation technologies.

## THEREFORE IT IS ORDERED THAT:

1. The Residential Energy Efficiency Loan (REEL) pilot shall continue as a full-scale program.
2. The California Alternative Energy and Advanced Transportation Financing Authority (CAEATFA) shall continue as the administrator of the REEL program.
3. Budget for the administration of the REEL program and the energy efficiency pilots is authorized as described in this resolution for fiscal years 2020-2021 and 2021-2022, and CAEATFA is authorized to make enhancements to the REEL and the financing pilots for maintenance and improvement of information technology and administrative needs during the interim period before the next CPUC decision.

4. Pacific Gas and Electric Company, Southern California Edison Company, Southern California Gas Company, and San Diego Gas & Electric Company, collectively referred to as the large investor-owned utilities (IOUs), shall continue to provide funds to CAEATFA for administration of the program and pilots as already directed through CPUC decisions. Should these already-authorized funds become exhausted before the next CPUC decision addressing the energy efficiency financing program and pilots, then CAEATFA shall shift funds from the existing credit enhancement pool to support the budget for the REEL and energy efficiency pilots while awaiting future direction from the CPUC.
5. The IOUs shall continue to provide support for Information Technology (IT), marketing, and administration of the REEL and other energy efficiency pilots administered by CAEATFA with funds drawn at the present level until the CPUC provides new direction through a decision.
6. The lead utility for finance (i.e., Southern California Gas Company) may extend contracts that it holds for marketing, education, & outreach (ME&O) to support the energy efficiency financing program and pilots if needed, and the IOUs shall continue to provide funds at the present level and in the present manner to fund the marketing, education, & outreach activities until the CPUC provides new direction through a decision.
7. The IOUs may use the following mechanisms to support the energy efficiency program and pilots and draw the funds used to continue ME&O contracts: (1) Utilize unspent funds from previously approved administrative funding approved through the 2018-2020 EE Finance Pilots Budget advice letters; (2) utilize the Annual Budget Advice Letter (ABAL) process by including funds for the program and pilots in the authorized annual energy efficiency budget or use the ABAL process to request new approval of funding from the previous year's unspent, uncommitted energy efficiency funds; (3) as provided in D.17-03-026, the IOUs may file a separate Tier 2 advice letter containing details of the costs to be covered and proposing the funding source, whether previously authorized energy efficiency program funding or incremental funding; or (4) The IOUs may also include these funds in future business plan filings subject to future direction from Commission decisions.
8. This resolution does not address any expanded scope for the REEL program nor for any other financing pilot beyond practical enhancements for maintenance or improvement of functions to allow for scaling of the

program and pilots, such as provision of information technology, data gathering, or administration.

This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on April 16, 2020; the following Commissioners voting favorably thereon:

*/s ALICE STEBBINS*
ALICE STEBBINS
Executive Director

MARYBEL BATJER
President
LIANE M. RANDOLPH
MARTHA GUZMAN ACEVES
CLIFFORD RECHTSCHAFFEN
GENEVIEVE SHIROMA
Commissioners

**Attachment 1**

In guidance provided in Decision D.12-05-015, the Commission envisioned a long-term goal of developing new, scalable, and leveraged financing products to overcome the first cost of energy efficiency upgrades and induce customers to participate in projects that produce deeper energy savings than would be achieved utilizing mostly traditional program approaches such as audits, rebates, and access to consumption data.[40] The following goals and metrics are selected by Resolution E-4900 for assessing the results of financing pilots:

| Goal | Metric | Comments |
|---|---|---|
| The financing tool is scalable | Number of loans made by the pilot, with breakdown by:<br>• Growth in the number of loans on a month-by-month basis over the lifetime of the pilot<br>• Total amount of financing generated by the pilot<br>• Geographic distribution of loans, including ability to reach new regions of the state especially those with large underserved populations | Data should be presented to show whether these financing tools can reach a significant and growing number of Californians |
| The financing tool is leveraged by private capital and support | Private capital participation in the pilot, as measured by:<br>• Number of financial institutions participating in the pilot, and types of financial institutions participating (such as credit unions)<br>• Amount of private capital | Data should be presented to indicate whether these financing tools can become partially or entirely self-supporting, that is can reach a point where they depend less or do not depend on the use |

[40] D.12-05-015, pp. 112-13.

| | | |
|---|---|---|
| | attracted | of ratepayer funds |
| The financing tool reaches underserved Californians who would not otherwise have participated in EE upgrades | Analysis of participants in the pilot, according to:<br>• Credit scores of loan participants reported on an aggregate basis<br>• Length of time allowed for applicants to pay back the loans<br>• Percentage of participants deemed "underserved" as measured through CalEnviroScreen data, area median income, or other poverty statistics<br>• Whether participants would have qualified for existing private energy efficiency loan programs at interest rates and terms that they can afford or would accept | The "counterfactual" of whether participants would have taken loans from elsewhere for the same upgrades is difficult to demonstrate, but best efforts should be made to provide data showing that hard-to-reach communities were reached – and analysis done by EM&V contractors can also be consulted<br><br>Lower-income participants may prefer longer loan pay back periods, so the length of time allowed for repayment may offer a proxy for ability to reach low-income communities |
| The financing tool produces energy savings | Energy savings that resulted, as measured:<br>• Through customer meter data provided by the utilities via Energy Division data request (customer privacy must be maintained)<br>• Through Normalized Metered Energy Consumption (NMEC) | Energy Savings will be calculated by EM&V contractors not by pilot administrators.<br><br>NMEC analysis has not previously been applied to the analysis of financing pilots, and is considered an option here to be used if it can |

| | | |
|---|---|---|
| | analysis, as an option<br>• Comparison of energy savings from other loan programs to that of the pilot, if possible to assess through Evaluation, Measurement, & Verification studies (EM&V) | add to the understanding of the results of the pilots |

**Attachment 2**

**Final Evaluation of the REEL by Opinion Dynamics, Dunsky, and others**

(*Attach Final Evaluation Report Here*)