CALIFORNIA ALTERNATIVE ENERGY AND ADVANCED TRANSPORTATION FINANCING AUTHORITY

CALIFORNIA HUB FOR ENERGY EFFICIENCY FINANCING

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Re: Summary of CAEATFA's Track 2 Clean Energy Financing Proposal

To recipients of service list R.20.08.022:

Through Track 2 of the CPUC's Rulemaking on Clean Energy Financing, the California Alternative Energy and Advanced Transportation Financing Authority (CAEATFA) plans to submit a proposal for the expansion of the California Hub for Energy Efficiency Financing (CHEEF) Programs. While not a party to R.20.08.022, CAEATFA is engaging in this proceeding as the administrator of the CHEEF and appreciates the opportunity to provide this proposal for consideration.

Please find a summary of our proposal on the following pages. Thank you for your consideration.

Sincerely,

Derek Chernow
Executive Director

Enclosure

cc: Jennifer Kalafut, Commission staff
Peter Franzese, Commission staff
Hal Kane, Commission staff
Kevin Feizi, Commission staff

Summary of CAEATFA's Clean Energy Financing Proposal
Track 2 of R.20-08-022

I. Summary of Proposal Concept

CAEATFA's proposal will have two components and request:

1. **Authorization to use credit enhancement funds to support financing of clean energy technology beyond energy efficiency (EE) and demand response (DR) measures** across the CHEEF's three GoGreen Financing Programs (GoGreen Home, GoGreen Business, and GoGreen Affordable Multifamily).[1] The objectives of this expansion would be to:
   a. Immediately unlock tens of millions of dollars in private capital[2] from GoGreen participating finance companies for comprehensive energy upgrades, as this solution allows CAEATFA to leverage existing infrastructure (including regulations, website, and contractor network) with minimal administrative lift.
   b. Enable the GoGreen Financing Programs to serve as a "one-stop shop" for customers to finance comprehensive clean energy projects aligned with CPUC and statewide climate and energy policy goals of decarbonization, GHG emissions reduction, peak demand reduction, and grid resilience.
   c. Expand debt-based clean energy financing options for customers who have the cash flow to repay loans, including "Median" and "Moderate" Income borrowers, while allowing subsidy dollars to be preserved and channeled toward very low-income customers.
   d. Complement the expanded On-Bill Financing (OBF) and new Tariffed On-Bill (TOB) Financing proposals expected to be submitted by the IOUs, as well as other proposals to be submitted by parties to this Proceeding.

   CAEATFA will propose 3 potential funding options to support this expansion, of which we will recommend *both* options 1 and 2:

   - *Option 1 (recommended):* Allow CAEATFA to seek external non-IOU ratepayer, non-Public Purpose Program (PPP) surcharge funds for this expansion, such as state, federal, or POU funds, as was done to allow CAEATFA to expand the CHEEF to non-IOU geographic territories in D.21-08-006.
   - *Option 2 (recommended):* Determine that the $75.2 million in incremental funds authorized to support the CHEEF from 7/1/22-6/30/27 through D.21-08-006 can also be used to support clean energy technologies beyond EE and DR.
   - *Option 3 (not recommended):* Authorize new ratepayer funds to support this expansion.

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[1] CAEATFA has previously advocated to the CPUC for authorization to expand the types of measures able to be supported via the credit enhancement, most recently as part of Track 1 of this Proceeding. In D.21-08-006, after including the question of measure expansion in the Scoping Memo and collecting comments from parties, the CPUC deferred their decision as to this authorization to Track 2.

2GoGreen Participating Finance Companies and their products can be found at https://gogreenfinancing.com/findfinancing. Recently approved finance companies will be added to the website and PDF charts later in March.

2. **Re-authorization to develop the Nonresidential/Large Commercial Program**, which would provide support for financing via on-bill repayment (OBR) for large commercial and municipal/state government, university/college, school, and hospital (MUSH) buildings without the use of a credit enhancement.[3] The objectives of this program would be to:
    a. Expand access to the already-developed OBR infrastructure to nonresidential, large commercial, and MUSH market properties.
    b. Preserve credit enhancement dollars for qualified small businesses while responding to the demand for OBR from larger businesses, project developers and finance companies.
    c. Leverage tens of millions of dollars in GoGreen private capital financing options to support comprehensive clean energy investments for larger property types, where project costs will be high; using private capital for these projects preserves ratepayer funds for other uses.
    d. Leverage the CHEEF's existing infrastructure to support projects with significant anticipated savings with very little additional operational expense.

II. Complementing other efforts

CHEEF expansion efforts will be designed to complement tariffed on-bill (TOB) and OBF expansion proposals from other Program Administrators as follows:

1. Complementing TOB[4]
    - **GoGreen Financing reaches a different market segment than TOB programs.** Lenders participating in GoGreen Financing approve between 35% and 75% of the loan applications that they receive each month. This confirms that there is a certain percentage of customers who want to take on an energy upgrade but are unable to be approved for a loan (even with broadened underwriting criteria) and thus need a different solution, such as a non-debt, non-credit based solution like TOB. However, this also tells us tthere is a significant base of customers that *do* have the ability to pay for their own energy improvements, provided they have access to financing at affordable and attractive terms. While 56% of GoGreen Home loans have been made to upgrade properties in Low-to-Moderate Income (LMI) tracts (22% to "Lower Income" and 34% to "moderate income"), the median income of GoGreen Home borrowers is 111% of Area Median Income (AMI), corresponding with the definition of "Moderate Income.[5]" This data demonstrates how GoGreen Home and TOB will serve different customer types, both in need of increased access to financing for energy upgrades.[6]

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[3] CAEATFA previously received authorization from the CPUC to launch the Nonresidential/Large Commercial pilot alongside its three other Programs supporting the residential, small business, and affordable multifamily sectors as part of D.13-09-044. This pilot was intended to facilitate OBR for financing in the large commercial and MUSH sectors with no credit enhancement. However, the CPUC stipulated in D.17-03-026 that all CHEEF pilots launch by the end of 2019, and since OBR had not yet been developed at that time, the authorization to develop this pilot was cancelled. OBR will have a soft launch by the end of Q1 and is expected to be fully functional by the end of Q2 2022, which provides an opportunity for CAEATFA to begin developing the Nonresidential/Large Commercial pilot again.

[4] CAEATFA is aware that there is a lot of interest in launching TOB programs. Separately from this Proceeding, CAEATFA is in discussions with the legislature as to what role CAEATFA could play in providing credit support to enable TOB programs across the state.

[5] Department of Housing and Community Development uses the term "Lower income" to refer to customers with incomes at 50 to 80% of AMI and "moderate income" to refer to those with incomes 80 to 120% of AMI.

[6] Full reporting on outcomes and populations served by GoGreen Home through Monthly Data Summaries can be found at https://www.treasurer.ca.gov/caeatfa/cheef/cheef-reports-and-additional-materials.asp

- **GoGreen Financing helps preserve subsidy dollars for income-qualified customers.** To the extent that TOB programs will include heat pump technology, they will most likely require subsidy dollars in order for investments to be repaid through savings. An expanded GoGreen Home program that allows comprehensive technology, for example, could help customers transcend heat pump cost challenges by financing the heat pump along with solar PV. With GoGreen Home, customers would be paying for the entire cost of the investment, with affordable financing making the upgrade feasible. Scarce subsidy dollars can then be preserved for those who need it most.

2. Complementing expanded OBF
   - **GoGreen Financing fills financing gaps for projects that OBF programs are unable to address.** Expanded OBF programs, even if using third-party capital, are still likely to include restrictions that will limit use cases. GoGreen Business was designed to support projects that OBF is unable to finance and provides accessible financing options for borrowers to consider in combination with or as an alternative to OBF. Some key areas in which GoGreen Business will complement OBF after expansion are:
     i. For project scopes and measures not part of utility rebate or incentive programs (as is needed to qualify for OBF in SCE, SCG, and SDG&E territories)
     ii. For business owners without two years of bill pay history at the project site
     iii. When businesses need fast approval[7] for reactive and emergency replacement measures, as OBF will always have a longer and more complex approval process
     iv. For projects that require financed amounts that exceed the IOU size caps

CAEATFA looks forward to learning more about other program proposals put forth as part of the Proceeding and how our statewide, private capital program can complement and help leverage those efforts.

III. Component 1: Expansion to Support Clean Energy Measures Beyond EE/DR

1. Current Market Barriers

Under current CPUC guidelines, the CHEEF is unable to support comprehensive projects through credit-enhanced financing. Because the credit enhancement can only be used for EE and DR measures (as stipulated in D.13-09-044 and Resolution E-4663), this effectively restricts finance companies, particularly in GoGreen Home, from financing other clean energy technologies as the credit enhancement is essential to their underwriting and approval of borrowers. While options exist for residential customers to finance solar PV, GoGreen Home lenders are not able to offer financing for solar PV as part of a loan that also includes a heat pump. There is also not a State-administered financing option for residential EV charging. These circumstances create a barrier for borrowers to easily undertake comprehensive projects and limit efforts to grow and scale GoGreen Financing, despite interest from currently participating lenders and contractors in offering clean energy technologies beyond EE and DR.

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[7] Most GoGreen Business finance companies offer an "application only" credit approval process, which allows for approval within a range of 2 business hours to 2 business days. CAEATFA staff can pre-approve project scopes using an online project platform within 1-2 business days.

Many, if not most, of the energy efficiency programs across the country similar in structure to these Programs successfully provide financing for customers to make comprehensive energy upgrades, and their programs operate at a scale beyond that of the CHEEF's current impact.[8] In California, customer uptake of EE measures alone – without load shifting, storage, islanding ability, etc. – will prove insufficient to meet the State's climate goals. The transition to heat pump technology at scale also requires that some customers be able to offset their electric costs through their own solar production.

2. Eligible Technology

CAEATFA will propose broad criteria that clean energy technologies must meet in order to be eligible for credit-enhanced financing. Our goal is for the CPUC to approve this broad guidance, from which CAEATFA will create specific pre-qualified measure lists in line with that guidance through its public rulemaking process.[9]

CAEATFA has identified 3 sectors for which benefits can be analyzed: customer, utility, and society. CAEATFA has also identified 9 benefits that can be assessed for any particular technology:

- Bill Savings – Technologies that reduce the customer's total energy costs (operating and equipment); can be positive from a customer perspective and negative for utilities due to reduced revenues.
- Bill Stability – Reduced volatility of energy costs.
- Energy Reduction – A decrease in the final energy demand for a customer; can be the result of higher efficiency equipment or on-site generation.
- Peak Reduction – Reduction in highest peak loads during defined seasonal or diurnal periods.
- Load Shifting – Increased ability to manipulate loads to match system conditions.
- Avoided Transmission & Distribution (T&D) Upgrades – The technology helps avoid the need for grid infrastructure upgrades and investments.
- Emissions Reductions – Technology expected to lower emissions of greenhouse gases and other criteria pollutants.
- Islanding/Back Up – Technology that increases the ability to maintain energy services during power interruptions, including public safety power shut-offs.
- Resilience - Improved ability of the system to respond, endure, and recover from stresses. A system that has a greater number of nodes with levels of distributed generation and load matching is more resilient than a system that is centralized.

Additional considerations of this framework include:

- In order to qualify for inclusion in the expanded GoGreen Financing Programs, a particular technology would need to produce benefits for all 3 sectors.

[8] Michigan Saves, the Connecticut Green Bank's "Smart-E" Program, and Colorado's RENU loan program all follow the same model as the CHEEF: private capital providers have access to a loan loss reserve in order to broaden their approvals and improve terms, and customers have a choice of lender and engage in a front-end, loan transaction with that lender. Each of these programs includes some combination of energy efficiency along with measures like EV charging, solar PV, solar hot water, and/or battery storage. In 2020, Michigan Saves financed almost 4,000 residential projects and 132 commercial projects, and Connecticut's Smart-E Proram closed 971 loans. In comparison, GoGreen Home supported 447 residential loans (excluding microloans) in 2020 and 650 in 2021.

[9] Since the Programs were initially authorized in D.13-09-044, CAEATFA has determined eligible measure lists for them through its public rulemaking process, which produces regulations that govern each Program after public input, workshops, and CAEATFA Board approval.

- Examples of technology to be vetted through approved criteria include on-site generation, solar domestic hot water, solar lighting and fans, combined heat and power, battery storage, EV charging infrastructure, hydrogen fueling infrastructure, microgrids, etc.
- "Bundled" technologies may be considered under this framework. For example, rooftop solar PV would not pass the benefits test alone, but could be eligible if paired with battery storage. CAEATFA would be able to incorporate measure bundling requirements into Program regulations.The new criteria for non-EE/DR technologies will be combined with CAEATFA's current authorization for EE and DR. EE and DR measures will not be required to pass the benefits test, as CAEATFA is currently authorized to determine eligibility for these measures through its public rulemaking process.

The table below demonstrates how this may work in practice for 3 sample technologies:

	Customer	**Utility**	**Society**	**Pass/Fail?**
Stand-alone on-site solar generation	Bill savings, bill stability, energy reduction			**Ineligible**
Battery storage	Bill savings, bill stability, energy reduction, peak reduction, resilience	Load shifting, islanding/back-up, resilience	Energy reduction, emissions reduction	**Eligible**
Fuel cell/hydrogen end use	Energy reduction, load shifting, peak reduction, islanding/back-up	Load shifting, peak reduction, islanding/back-up, resilience	Load shifting, avoided T&D upgrades, emissions reduction, resilience	**Eligible**

3. ***Other Program Basics***
    - The existing GoGreen Financing Programs will be expanded to incorporate additional technology through CAEATFA's rulemaking process.
        - CAEATFA will preserve existing consumer protections that are part of these regulations.
        - If approved, the new Nonresidential/Large Commercial Program will also make expanded technologies eligible as part of the rulemaking process.
    - CAEATFA expects current lenders to offer new technologies through their same products with some minor adjustments; for example, some may begin taking UCC-1 fixture filings on equipment.
        - CAEATFA also expects participation from new lenders in response to the expansion.
    - KPIs/evaluation metrics could include: GHG reduction, peak demand reduction, amount of private capital leveraged, number of customers served, interest rate savings for customers, and monthly payment reductions for customers (compared to shorter-term financing without a credit enhancement).

4. ***Budget Needs and Funding Source***

    Budget needs for this expansion would include:

- *Operations:* CAEATFA would need an additional staff person to organize and focus on the technology expansion related to regulation processes, coordinating with our technical consultant and vendors, and implementation. The costs for contracting could be absorbed under existing budgets.
- *Credit Enhancement:* Dollars would be needed to fund the loss reserve contributions for finance companies making loans for comprehensive projects.

CAEATFA will recommend 2 of the 3 below funding options as part of this proposal:

1. *Option 1 (recommended):* Allow CAEATFA to seek external non-IOU, non-PPP funds for this expansion, such as state, federal, or POU funds, as was done to allow CAEATFA to expand the CHEEF to non-IOU geographic territories in D.21-08-006.
    - At a minimum, **the CPUC should allow CAEATFA to incorporate non-IOU ratepayer funds into the CHEEF for this purpose** to leverage the existing infrastructure of the CHEEF for comprehensive projects. CAEATFA has already developed accounting tools and practices to successfully collect, track, and report on external funds.

2. *Option 2 (recommended):* Determine that the $75.2 million in incremental funds authorized to support the CHEEF from 7/1/22-6/30/27 through D.21-08-006 can also be used to support clean energy technologies beyond EE and DR.
    - While this budget uses PPP surcharge funds from IOU ratepayers, it was approved as part of the Clean Energy Financing Proceeding (R.20-08-022) and not the EE Proceeding (R.13-11-005). The Commission could decide to authorize this approved budget to support additional technologies. It is likely that increased loan volume and loan size due to comprehensive projects will mean that CAEATFA deploys the credit enhancement budget approved faster than projected. However, this falls under the category of a "good problem to have," as it will mean that tens of millions of dollars of private capital will be deployed toward GHG reduction and other critical state energy goals to achieve savings earlier. CAEATFA could then request additional capital from IOU ratepayer sources or may have identified non-ratepayer funding sources by the time additional funds are needed.

3. *Option 3 (<u>not</u> recommended):* Authorize new ratepayer funds to support this expansion.
    - CAEATFA is not recommending this option, as it would require the IOUs to pass on additional surcharges to ratepayers before dollars already approved for financing have been spent. Maintaining separate accounting between two sources of IOU ratepayer funds for different technologies, while possible, would add administrative burden.

IV. Item 2: Re-Authorization of the Nonresidential/Large Commercial Program for On-Bill Repayment without Credit Enhancement

1. Current Market Barriers

CAEATFA seeks to gain re-authorization to develop the Nonresidential/Large Commercial Program (previously authorized in D.13-09-044) to leverage on-bill repayment (OBR) functionality and address significant interest from potential customers who are ineligible for GoGreen Business due to the Program's size requirements. CAEATFA has seen interest from several lenders who have customers only in need of the OBR infrastructure without a credit enhancement. CAEATFA has also received interest from public building managers whose property types cannot qualify for GoGreen Business but are interested in OBR. For public building managers, the ability to repay energy upgrade investments as utility charge line items on their bill makes projects feasible. Additionally, the project sizes and measure types expected to be installed via this Program would result in significant GHG emissions reductions and reduced energy consumption.

2. Opportunity

CAEATFA has "soft launched" OBR functionality as part of GoGreen Business in Southern California Gas, Southern California Edison and San Diego Gas & Electric territory. A full launch of OBR, including participation from Pacific Gas & Electric, is expected later this spring. Contractors, project developers and finance companies currently participating in GoGreen Business (including several who are already offering OBR) are well-equipped to offer financing through the Nonresidential/Large Commercial Program, and CAEATFA believes there are other finance companies that, with the ability to lend to larger entities and serve the MUSH market, would join the Program. This will also allow more companies to take advantage of the OBR infrastructure and provide an additional clean energy financing option to complement existing/future OBF and TOB programs.

3. Eligible Technology

This Program was originally authorized per D-13.09.044 to allow both EE and distributed generation measures to count toward the 70% requirement[10] of a customer's loan value. However, recognizing that stand-alone solar PV does not always offer grid benefits, CAEATFA will propose to apply the same framework for non-EE/DR technology as discussed above for Item 1 to determine measure eligibility for the Program.

4. Other Program Basics

- CAEATFA will take advantage of the existing CHEEF infrastructure (namely OBR) to offer clean energy financing options to more property types through this Program.
- No credit enhancement will be offered for any projects under this Program. It will only be used to provide OBR functionality for nonresidential, large commercial and MUSH market projects.
- CAEATFA will propose that this Program authorization be included in the existing 5-year timeline for CHEEF authorization for fiscal years 2022/3 through 2026/7, as outlined in D.21-08-006.
- GoGreen Business regulations can be easily modified to accommodate larger customers and financing that does not receive a credit enhancement.

5. Budget Needs and Funding Source

Budget needs for this Program will include:

- *Operations:* Establishing this Program will carry minimal upstart costs, as existing regulations, OBR infrastructure, website architecture, project developer networks, and

[10] Since D.13-09-044, CAEATFA has been authorized to finance projects where at least 70% of the project value consists of eligible measures. The remaining 30% may be spent on non-energy measures, such as remodeling or landscaping, which provides some flexibility to borrowers who need to install both energy and non-energy measures in one financing agreement.

participating financing companies can be leveraged for use in this sector. CAEATFA imagines that one additional staff person will be needed to administer the Program.

- *Credit Enhancement:* No funds are needed, as this Program would not include a credit enhancement.
- *Operational Reserve:* Depending on the size allowed for financing to be repaid using OBR, the size of the OBR operational reserve may need to be increased to ensure the ORF can serve its purpose of smoothing out payment flows. The Operational Reserve could be covered with existing credit enhancement funds.

CAEATFA will recommend one funding source option for this Program:

- Authorize the existing $75.2 million in incremental funds approved to support the CHEEF from 7/1/22-6/30/27 through D.21-08-006 to be used to support the program including the additional staff person required.

This Program was originally authorized as part of D.13-09-044, allowing both EE and distributed generation to be repaid on the utility bill. The Program was only cancelled because the OBR infrastructure was not ready prior to the 2019 launch deadline required by D.17-03-026. Therefore, there should be minimal procedural obstacles for the CPUC to re-authorize the Program, especially with CAEATFA proposing even tighter criteria as to what non-EE technology will be eligible compared to what was authorized in D.13-09-044.