For Public Comment:

Draft Criteria for a Comparative Assessment of Energy Efficiency Financing Programs Available in California

Introduction and Process
The California Alternative Energy and Advanced Transportation Financing Authority ("CAEATFA") is soliciting comment on the attached proposal of criteria for a comparative assessment of energy efficiency financing programs available in California.

Members of the working group appointed by the CAEATFA Board will discuss their feedback on the proposed comparative criteria and make recommendations for criteria for a comparative assessment of energy efficiency financing programs at a public meeting scheduled on April 27, 2016, from 9:30 AM–1:30 PM (PDT), or until business is concluded, at 915 Capitol Mall, Room 587, Sacramento, CA 95814 (webinar registration: https://attendee.gotowebinar.com/register/7726773258085420036).

The general public may submit written comment on the proposed comparative criteria until April 22, 2016, at 5:00 PM (PDT). Any interested person, or his or her authorized representative, may submit written comments by email or by mail to:

Ashley Bonnett, Analyst
CAEATFA
915 Capitol Mall, Room 457
Sacramento, CA 95814

CAEATFA staff will provide working group members the written public comments received by the above deadline to incorporate any responses in their feedback at the April 27th meeting.

Background
Legislative Directive
As part of the 2015-16 Budget Package, the California Legislature tasked CAEATFA, in consultation with the California Public Utilities Commission ("CPUC"), with creating “a working group that will include key stakeholders to develop criteria for a comparative assessment of energy efficiency financing programs available in California,” including Property Assessed Clean Energy ("PACE") financing, legacy utility on bill financing ("OBF"), and the California Hub for Energy Efficiency Financing ("CHEEF") Pilot Programs. (Supplemental Report of the 2015-16 Budget Package, Item 0971-001-0528.)

In response to the legislative directive, CAEATFA staff planned a public process to encourage stakeholder participation and input in developing criteria for a comparative assessment. CAEATFA hosted three educational workshops featuring presentations from stakeholders on various metrics for evaluating energy efficiency financing programs. The process culminates with a public meeting at which a working group appointed by the CAEATFA Board will discuss the proposed criteria for a comparative assessment of the energy efficiency financing programs
detailed below. CAEATFA will then publish its proposed criteria along with a summary of the
issues discussed and recommendations made by the working group.

Background Information on California Energy Efficiency Financing Programs

Overview of California Energy Efficiency Financing Programs

PACE Financing: PACE is a method of financing energy efficiency, water efficiency, renewable
energy retrofits, electric vehicle charging stations, or seismic strengthening improvements for
residential and commercial properties. PACE financing is available in specific jurisdictions, or
PACE districts, in which the local governments have authorized special taxes or contractual
assessments for these improvements. PACE programs are created by local agencies and may
be run locally or through a public-private partnership with a private finance entity. Property
owners in a PACE district can use PACE financing to retrofit their homes or businesses with no
money down and pay for the assessment through their local property tax bill. PACE financing is
secured with a first-priority lien on the underlying property.

CHEEF Pilot Programs: The CHEEF Pilot Programs were authorized by CPUC Decision 13-09-
044 and are being managed by CAEATFA in collaboration with the CPUC and the state’s
investor-owned utilities (“IOUs”). The $65 million pilot programs will encourage and leverage
private unsecured lending and investment in energy efficiency projects for both the residential
and commercial sector with various features such as loan loss reserves, debt service reserve
funds, and the ability for IOU customers to include monthly loan payments directly on their
monthly bills (on-bill repayment). The single family residential pilot program will be the first in the
sequence of pilots to launch, with an anticipated launch date of spring 2016. The remaining
pilots will subsequently phase in throughout 2016 and 2017.

On-bill Financing: Utility On-bill financing programs are administered by the IOUs, and provide
zero-percent interest, unsecured, non-transferable loans for businesses to finance energy
efficiency projects from their utility provider. The financing terms are designed such that the
energy savings covers the loan installment. Monthly payments are included on the utility bill,
and any loan default results in meter shut-off.

Other financing programs: In addition to the financing programs and structures identified above,
there are other types of financing and incentive programs that are administered by various types
of entities across the state -- including local governments, public utilities, and other state entities
-- for which these criteria may be helpful.

Evaluation of California Energy Efficiency Financing Programs

The CHEEF Pilot Programs and utility on-bill financing are a part of the CPUC’s portfolio of
energy efficiency programs and are incorporated in CPUC’s evaluation, measurement, and
verification (EM&V) plan, which budgets for both process and impact evaluations of the
programs.\(^1\)

California PACE financing programs are created by local agencies and administered locally or
through a public-private partnership. Each program may have different goals, processes, and
procedures and its own strategy and plan for evaluation. However, the CPUC has

\(^1\) Broadly, process evaluations review how well programs are being implemented and provide recommendations
for improvement; impact evaluations review energy savings, attribution, and cost-effectiveness.
commissioned a profile study of the residential HERO Program, a PACE provider, to determine key factors in HERO’s rapid growth and to understand lessons learned, especially those that might apply to the utility rebate programs and the CHEEF Pilot Programs.

Working Group Process

As mentioned above, CAEATFA staff planned a public process to encourage stakeholder participation and input in developing criteria for a comparative assessment. Based on the discussions and public comment received during the series of educational workshops, CAEATFA staff developed a proposal of criteria for comparative assessment. CAEATFA will provide the proposed criteria, for public review and comment. At a public meeting scheduled on April 27, 2016, the appointed working group will provide additional feedback on the proposed criteria – taking into consideration public comment. In June 2016, CAEATFA will publish a summary of the discussions and recommendation made by the working group, along with any public comment received.

Members of the Working Group

CAEATFA staff reached out to stakeholders and developed a list of 38 working group members (“Working Group”), which includes representatives from several key stakeholder groups. The CAEATFA Board approved the list of Working Group members at its March 2016 board meeting.

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization</th>
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<tbody>
<tr>
<td>Paul Blagbrough</td>
<td>Union Bank</td>
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<tr>
<td>Matthew Brown</td>
<td>Harcourt Brown and Carey</td>
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<tr>
<td>Daniel Buch</td>
<td>Office of Ratepayer Advocates</td>
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<tr>
<td>Richard Chien</td>
<td>City and County of San Francisco</td>
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<tr>
<td>Howard Choy</td>
<td>LA County Office of Sustainability, Internal Services Department</td>
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<tr>
<td>Jeanne Clinton</td>
<td>California Public Utilities Commission</td>
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<td>Charles Cormany</td>
<td>Efficiency First - California</td>
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<tr>
<td>Susan Davison</td>
<td>CalICERTS, Inc.</td>
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<td>Jeff Deason</td>
<td>Lawrence Berkeley National Laboratory</td>
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<tr>
<td>Jane Elias</td>
<td>Sonoma County Energy Independence Program</td>
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<td>Laura Franke</td>
<td>Public Financial Management, Inc.</td>
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<td>Al Gaspari</td>
<td>Pacific Gas &amp; Electric</td>
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<td>Sandy Goldberg</td>
<td>Governor’s Office of Planning and Research</td>
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<td>Matt Golden</td>
<td>Open Energy Efficiency</td>
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<td>Charles Goldman</td>
<td>Lawrence Berkeley National Laboratory</td>
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<td>Kevin Gould</td>
<td>California Bankers Association</td>
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<td>Peter Grabell</td>
<td>Figtree Financing</td>
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<tr>
<td>Angela Hacker</td>
<td>Community Services Department, County of Santa Barbara</td>
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<tr>
<td>James Hamill</td>
<td>California Statewide Communities Development Authority</td>
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<td>David Ismailyan</td>
<td>California Energy Commission</td>
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<td>Jewel James</td>
<td>Renovate America</td>
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<td>Courtney Jensen</td>
<td>California &amp; Nevada Credit Union Leagues</td>
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<td>Chris Kramer</td>
<td>Energy Futures Group</td>
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<td>Mike Lemyre</td>
<td>Ygrene Energy Fund</td>
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<td>Joseph Livaich</td>
<td>Renew Financial</td>
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<td>Barbara Lloyd</td>
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<td>Van Mattison</td>
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<td>Ari Matusiak</td>
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<td>Pat McGuckin</td>
<td>Cadmus, Energy Services Sector</td>
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<td>Dennis Quinn</td>
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<td>Diane Schrader</td>
<td>THIRDact</td>
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<td>William Shady</td>
<td>Sustainable Design &amp; Project Management</td>
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<td>Frank Spasaro</td>
<td>Southern California Gas Company</td>
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<td>Barbara Spoonhour</td>
<td>Western Riverside Council of Governments</td>
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<tr>
<td>Jennifer Svec</td>
<td>California Association of Realtors</td>
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<td>Mark Tsimanis</td>
<td>Energy Loan Network</td>
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<tr>
<td>Wayne Waite</td>
<td>California Housing Partnership</td>
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<tr>
<td>Jenine Windeshausen</td>
<td>Treasurer, County of Placer</td>
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<td>February 10, 2016</td>
<td>First public workshop with presentation from LBNL on <em>Making it Count</em>. The public was provided the opportunity to submit written comments on criteria that should be discussed during the process on a rolling basis.</td>
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<tr>
<td>February 17, 2016</td>
<td>Deadline for potential participants to notify CAEATFA of interest in participating as a Working Group member.</td>
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<tr>
<td>February 22, 2016</td>
<td>Public comment deadline on topics and criteria.</td>
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<tr>
<td>March 15, 2016</td>
<td>Board considered and approved Working Group members.</td>
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<tr>
<td>March 22, 2016</td>
<td>Second public workshop with presentations on the California Hub for Energy Efficiency Financing (CHEEF) and On-Bill Financing evaluation.</td>
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<tr>
<td>March 29, 2016</td>
<td>Third public workshop with presentations on PACE financing.</td>
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<tr>
<td>April 15, 2016</td>
<td>Draft proposal of comparative criteria noticed to the public. Public may submit written comments on the proposed criteria for 5 business days.</td>
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<tr>
<td>April 22, 2016</td>
<td>Public comment on the proposed criteria due.</td>
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<tr>
<td>April 27, 2016</td>
<td>Meeting of the working group to discuss proposal of criteria for a comparative assessment of energy efficiency programs. Public may submit written comments on the proposed criteria for an additional 2 business days.</td>
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<tr>
<td>April 29, 2016</td>
<td>Additional public comment period on the proposed criteria due.</td>
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<tr>
<td>June 2016</td>
<td>CAEATFA will publish a summary of the issues discussed and recommendations made by the working group.</td>
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Draft Criteria for a Comparative Assessment of Energy Efficiency Financing Programs Available in California

CAEATFA Working Group
April 2016
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Introduction

As part of the 2015-16 Budget Package, the California Legislature tasked CAEATFA, in consultation with the California Public Utilities Commission (“CPUC”), with creating “a working group that will include key stakeholders to develop criteria for a comparative assessment of energy efficiency financing programs available in California,” including Property Assessed Clean Energy (“PACE”) financing, legacy utility on bill financing (“OBF”), and the California Hub for Energy Efficiency Financing (“CHEEF”) Pilot Programs. (Supplemental Report of the 2015-16 Budget Package, Item 0971-001-0528.)

In response to the legislative directive, CAEATFA staff planned a public process to encourage stakeholder participation and input in developing criteria for a comparative assessment. CAEATFA hosted three educational workshops featuring presentations from stakeholders on various metrics for evaluating energy efficiency financing programs. The process culminates with a public meeting on April 27, 2016, at which a working group appointed by the CAEATFA Board will discuss the proposed criteria for a comparative assessment of the energy efficiency financing programs detailed below. CAEATFA will then publish its proposed criteria along with a summary of the issues discussed and recommendations made by the working group.
Background and Perspective

CAEATFA is proposing the following criteria to support a potential comparative assessment of California energy efficiency financing programs. While a number of different aspects of energy efficiency financing programs can be evaluated, CAEATFA’s proposed criteria focus on evaluating a program’s energy savings, cost effectiveness, impacts by market segment, and consumer satisfaction. These criteria are consistent with California’s greater climate change goals and can be compared across all programs. The criteria are intended to evaluate the performance of programs relative to each other, including understanding whether and how programs may complement each other, as well as to evaluate the potential costs and benefits of running multiple programs in the same market segment. For example, certain programs may be more effective in different sub-segments of a particular market or may be more successful at encouraging certain project types. In addition, different programs will have various policy goals, which poses a challenge to conducting a comparative evaluation.

This report intentionally focuses only on comparative evaluation criteria, and not on evaluation methodologies. Many methodologies for evaluating energy efficiency financing programs are still being developed and refined, and may vary across programs. However, the choice of methodologies is a critical element of program evaluation, and will need to be consistent across programs reviewed if the following proposed comparative criteria are to be utilized in a meaningful way. It should be noted that the financing programs in California are in different stages of development, and some have no program data to inform any type of evaluation. In addition, the cost for implementing certain methodologies to evaluate program “cost-effectiveness” should be considered in view of the benefits of the resulting data, both in directly assessing program results and informing larger policy and program planning discussions.
Proposed Draft Criteria

1. **Energy savings attributable to program financing**: The reduction in energy usage brought about specifically by the financing offered under each program, but not including savings that would have occurred in the absence of the offered financing.

2. **Cost-effectiveness**: A comparison of a program's benefits to its costs.
   - **Total net benefits**: The dollar value of the energy savings attributable to the financing less the cost of providing those savings.
   - **Benefit-cost ratio**: The dollar value of the energy savings attributable to the financing divided by the costs of providing those savings.

3. **Savings, cost-effectiveness, and market penetration by market segment and project type**
   - **Impacts by market segment/sub-segment** (e.g., residential: single-family, multifamily, low-income; commercial: small, large; industrial; public/institutional)
     - **Segments/sub-segments reached**: Customer participation by segment/sub-segment.
     - **Attributable savings and cost-effectiveness by market segment**: The metrics calculated in the first two criteria, but for sectors and sub-sectors rather than the whole market.
   - **Measure and project characteristics**: Metrics related to the types of projects installed using the financing programs.
     - **Measure mix by program**: The share of financed measures by measure category, such as HVAC equipment/controls, building envelope measures (e.g., attic, wall, or floor insulation, infiltration reduction), windows and doors, cool roofs, water heating, etc.).
     - **Number of measures installed per project**: The average number of measures installed per project, which gives a sense of the depth of the financed retrofit.
     - **Savings per project**: Average net bill savings (dollar value of energy savings less financing payments) and the share of projects with positive net savings.

4. **Customer experience**
   - **Customer satisfaction**: Whether customers got what they expected out of the program and were happy with the experience. Customer satisfaction may include ease of use, time/duration of transaction/project, quality of project, comfort, health, etc.
   - **Consumer protection**: Whether the program adequately protected participants' financial interests, including by providing a clear understanding of financial product, energy savings expected, the uncertainty of savings projections, terms of financing, and repayment schedule.
Issues: Energy Savings Attributable to Financing

**Importance of Attribution**: In evaluating the financing aspects of energy efficiency programs, a key question is how much each financing product is “growing the pie” by generating savings that would not otherwise have occurred, or might only have occurred at a later time. Attribution analysis is needed to answer this question. For example, some of the savings from projects supported by financing products would likely have happened even in the absence of that financing, supported by other capital such as conventional loan products or cash. Some savings may also be attributable to rebates or other programs and policies that also affected the project.

Attribution analysis can also help evaluate whether there is any tradeoff between high total participation with lower attributable savings levels under some programs, versus lower total participation with higher rates of attribution per project in other programs.

Attribution analysis also raises challenges. Some argue that financing alone does not make a successful program and needs to be bundled with marketing and consumer satisfaction efforts to accelerate up-take and demand. Attribution analysis may require determining whether and how to parse out the impacts of financing alone versus other elements such as these that may be integrated into a financing program.

**Attribution Methods**: Methods of attributing savings to financing programs are under discussion in California and elsewhere. A comparative assessment should incorporate the latest thinking regarding best practices in this area and ideally be consistent with methods used in other California financing evaluations for this purpose.

**Access to Energy Savings Data**: Depending on the chosen methodology, evaluators may need access to key data related to energy savings such as measures installed, pre- and post-installation billing data, or billing data from non-participants. This may require cooperation with utilities, customers, and financing program administrators.

**Data Quality, Reporting, and Verification**: Data should be reported in a manner that is consistent and reliable, and that allows for independent verification of reported savings. If programs collect and report different types of data, a comparative assessment may become less meaningful.
Issues: Cost-effectiveness

Total Net Savings and Benefit Cost Ratio

**Total Net Benefits vs. Benefit-Cost Ratios:** Total net benefits represent the value of energy efficiency achieved minus the cost, providing an overall sense of what one is getting out of a financing product.

Some programs may serve customers for whom benefits are large and easily gained, and may not need to spend a lot to attract customers. As a result, they may have high benefit-cost ratios (BCRs). Programs seeking higher participation rates from harder to reach customers may need to spend more to acquire customers. Furthermore, each subsequent dollar invested may, in some cases, produce slightly lower returns even if returns for each project are still positive. Therefore, the ratio of benefits to costs may decline as more is invested, even as total value increases. For this reason, total net benefits provide a better sense of overall program value than benefit-cost ratios.

BCRs do provide a sense of the average amount of value produced in a program per dollar invested, which is also a useful metric. In some cases small programs with high BCRs may indicate an opportunity for expansion; that expansion might in fact lower the BCR but raise net benefits.

**Perspectives and Existing Benefit/Cost (B/C) Tests:** Programs frequently calculate benefits and costs from at least two perspectives: 1) holistically (regardless of who is paying), to determine whether a program is a good investment overall, and 2) from a program administrator perspective, to determine how the benefits that accrue to those paying for the program compare to proportion of total costs they are contributing. From a program administrator perspective, benefit-cost ratios for financing programs may seem encouraging due to lower costs borne by the administrator than would occur in other financing programs, or in traditional programs such as a rebate program. However, the BCR alone does not indicate if total net savings are increasing as a result of introducing financing. To get a complete picture, CAEATFA is recommending both net benefits and BCR be considered.
Issues: Cost-effectiveness

Total Net Savings and Benefit Cost Ratio

**Calculating Financing Costs**: Some financing costs may be less straightforward to calculate than other types of program costs. These may include forecasting uncertain future costs (e.g., costs stemming from future loan defaults), accounting for the cost of offering below-market rate financing, and valuing the opportunity cost of using funds for loan loss reserves. Discussions on valuing these types of costs are underway, and methods used for a comparative evaluation should be consistent with those used in financing evaluations where appropriate.

**Project-Level vs. Program-Level Savings**: Financing programs support many individual projects in different buildings and with different users. Results on individual projects may vary, and we do propose assessing project-level data in a few instances. However, in general, energy savings and cost-effectiveness are assessed at a program level, and we propose doing the assessment in that way except where specifically noted otherwise.

**Non-Energy Benefits**: Holistic, comprehensive benefit-cost calculations should theoretically include both energy and non-energy-related benefits. In practice, valuation of non-energy benefits is a complex topic under ongoing discussion around the country. A comparative evaluation should consider the latest thinking in determining an approach to valuing non-energy benefits or otherwise ensuring parity in valuing benefits and costs.

**Program Maturity**: When comparing results of cost-effectiveness tests, one should consider the relative maturity of the programs being assessed. Programs in very different stages of maturity may perform differently due to this issue, which would not necessarily indicate their long-run cost-effectiveness potential.
Issues: Savings, Cost-effectiveness, and Market Penetration by Market Segment and Project Type

Impacts by Market Segment:
- Customer/Sub-segments Reached
- Attributable Savings and Cost-Effectiveness by Market Segment

Understanding impacts such as savings and cost-effectiveness by market segment is key to a comparative evaluation of financing programs, as certain programs may be more or less effective within specific targeted markets. Determining whether programs are more effectively reaching certain segments or sub-segments – for example, low-income or credit-challenged customers, small businesses, specific business sectors, or specific geographies – may also inform whether and how certain programs are operating in a complementary fashion. Gathering this type of information may require cooperation by program administrators, or potentially supplemental non-program data sources for information that is not collected in the regular course of program operations.

Project Type/Characteristics:
- Measures Mix by Program
- Number of Measures Per Project
- Savings Per Project

Some programs may be more heavily weighted toward supporting the installation of certain measures versus others (e.g., HVAC equipment versus insulation). Understanding what measures are primarily being installed under different programs may help inform whether they are operating in a complementary manner.

Understanding the savings and number of measures installed per project under different programs may help illustrate whether and how various financing programs are facilitating larger or more comprehensive projects.
Issues: Customer Experience

Customer Satisfaction and Consumer Protections

**Customer Satisfaction**: Customer satisfaction, typically derived from customer surveys, may be quantifiable in many cases. Customer satisfaction may provide important information to policymakers as to whether and what value program participants feel they are receiving from the program. These benefits may go beyond energy savings, and incorporate ease of use, health benefits, noise reduction or increased comfort.

**Consumer Protection**: Survey questions related to the customer experience may also be tailored to provide information related to consumer protection, such as their experience with the contractor, their experience with the lender, whether they understand and can manage their repayment obligations, and whether they have experienced any unforeseen negative consequences as a result of participating in the program.
Prospective Future Criteria: Market Transformation

In addition to acquiring energy savings through direct program participation, some financing programs also seek to scale up savings by impacting the market as a whole. Efforts to transform the market for energy efficiency using financing are relatively new and somewhat loosely defined, and they may not be a focus of all programs in a given market. Assessing the market transformation impact of programs typically involves several elements: (1) market characterization and assessment that describes current market practices, activity and barriers and includes a “program logic model” that describes the expected impact on the efficiency services market of the program, and (2) development of interim metrics that can help track progress, and establishing a timeline over which specific changes are expected. Expected timelines for market transformation may in some cases be many years after program launch, and evaluation activities should be conducted at points along that timeline corresponding with the maturity of the program. For these reasons, more work is necessary before a comparative assessment of financing programs can include impacts related to transforming markets for energy efficiency services.

**Logic Models:** Different financing programs may seek to impact the market in different ways. In order to evaluate market impacts, each program would first need to develop a “logic model” that characterizes market, identifies barriers, and describes expected impacts from the program intervention. For example:

- Some programs may focus on gathering loan performance data to reduce the perceived risk of energy efficiency lending, thereby increasing the number of lenders, improving rates and terms, and encouraging a loosening of creditworthiness requirements. These supply side efforts might be expected to indirectly increase customer demand through increased availability of credit and greater attractiveness of financing offers.
- Other programs may focus on using financing to drive demand directly by using financing to shift customer perceptions of the value proposition offered by energy efficiency (e.g., by matching benefits with repayments via cash-flow-positive, transferable loans).

Understanding these differences may also have important implications for determining whether and how different programs may be operating in complementary ways.

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Prospective Future Criteria: Market Transformation

**Market characterization:** Market assessments provide a baseline that includes current market activity (e.g., estimates of savings attributable to financing offered by private sector entities, existing programs). This assessment may help inform evaluations that assess market impacts of financing programs.

**Interim Metrics:** Determining key indicators of progress is essential to tracking the relative success of a given program in effecting its expected market transformational impacts. Establishing an appropriate set of interim metrics would first require agreeing upon a theory of market transformation and developing a related logic model for each program. In order to track progress, timelines would need to be established for each program, with specific points along the schedule at which concrete milestones would be expected to have been achieved. Timelines could potentially differ depending on the program and related logic model.

**Tracking Simultaneous Impacts:** Changes in the broader market and timelines could be the result of external factors, as well as combined or interactive effects of multiple financing programs. Methods would need to be devised to isolate these various impacts, and adjust to changes in the broader economy and environment.
Supplemental Diagnostic Information

Finance Program Elements

Certain basic data may provide helpful context around the various energy efficiency financing programs in California and may help explain the results measured by the comparative criteria. As such they may be helpful to include as background information in a comparative evaluation. For example, such information might include the following:

- **Loan volume**: the dollar amount of loans or assessments made under the program.
- **Median and average loan amounts**: the median and average of project-level loans/assessments.
- **Private capital leverage**: the share of that dollar amount provided by private lenders.
- **Loan performance data**: share of loans or assessments that are delinquent, in default, or prepaid, defined consistently across programs.
- **Verified gross energy savings**: energy savings from projects supported by each financing product, as measured by a third party, irrespective of whether those savings are attributable to the financing.

Loan volume and amount, private capital leverage, and loan performance data each provide useful information regarding the financial aspects of a given financing program. However, these financial metrics only indicate how dollars have been raised, deployed, and repaid; they do not provide a direct measurement of the achievement of ultimate policy goals, such as an increase in cost-effective energy savings. In some cases, relative success in financial metrics may not always translate into superior performance along policy dimensions (e.g., if high loan volume derived to a large degree from capturing pre-existing market share rather than “growing the pie” or accelerating the timetable of retrofits earlier than expected). To the extent that these metrics do influence energy savings – which they often will – those impacts will be embedded in the energy savings criteria. In addition, a comparative assessment should provide qualitative information that may be important in understanding the context of each loan program, such as policy goals, program structures and constraints, and the source or purpose of the capital (e.g. direct lending, credit enhancements, subordinated debt, etc.).

Verified gross energy savings may also be useful for context. As with the financial metrics discussed above, verified gross savings may be included as background in a comparative assessment, but should not be included as a formal comparative evaluation since gross savings do not address whether those savings would have been achieved without the financing in question.

Programs may also self-report gross energy savings; however, if each program is calculating savings according to its own methodology, these savings will not be directly comparable. Moreover, best practices in energy efficiency program evaluation call for independent verification of reported savings via several steps (e.g., reviewing record keeping and conducting on-site sampling to verify measure installation).
Supplemental Diagnostic Information

Process Evaluation

Process evaluations typically provide information, often qualitative in nature, related to the operational aspects of program implementation, as well as the experience of customers, contractors, and other program partners. Contractor experience may be a particularly important factor to investigate for financing programs, as contractors are key sales channels for financing products. This information is typically used to help improve program implementation going forward in order to achieve programmatic goals more effectively. In a comparative assessment of financing programs, such information might be used to better contextualize quantitative impacts. Such information could also potentially be used in earlier stages of program development, to help determine whether certain programs were likely on track to be successful.

In some cases, it may be possible to develop proxy metrics for operational effectiveness, and programs that are implemented more effectively and efficiently can deliver more value. Such metrics should not be considered “primary” criteria, as they are not as directly tied to energy and policy goals as other criteria listed above.
Supplemental Diagnostic Information

Other Policy-Related Metrics

Each financing program included in a comparative assessment may have its own policy-related goals and objectives. Conducting a comparative assessment of financing programs may require determining whether the assessment should be focused only on progress toward achieving energy efficiency goals or should also track progress toward other policy objectives. The language calling for the creation of this Working Group refers to criteria for “assessment of energy efficiency financing programs,” but does not specify whether progress toward other goals that are tied to these programs should also be tracked.

Other policy-related goals may include the promotion of renewable generation or facilitation of other project types (e.g., water conservation, electric vehicle purchases, seismic strengthening), reduction of greenhouse gas emissions, as well as job creation and economic development. If progress toward all policy goals is included in a comprehensive assessment, it would also ideally provide information regarding whether and how the activities of various programs to achieve different policy objectives acted in concert to achieve a broad range of policy-related goals. A comprehensive assessment that tracks progress toward other policy goals would also need to identify pre-existing quantitative targets and potentially develop additional metrics to determine progress toward less concretely defined overall goals.

In cases where other policy goals are included as program objectives, they may ultimately enter the core criteria as non-energy benefits within the cost-benefit criteria. If other policy goals are not tracked as part of a comparative comprehensive assessment, the assessment should acknowledge that a complete understanding of the overall progress of any particular program includes examining progress toward the full range of objectives of that program.