Final Evaluation Report

KEMA's
2004-2005 California Energy Efficiency Loan Fund[SM]

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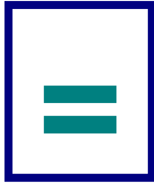

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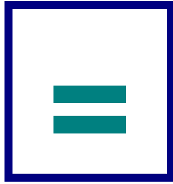

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EXECUTIVE SUMMARY

The California Energy Efficiency Loan Fund (Loan Fund) operated in five counties in the San Francisco Bay Area from October 1, 2004, through December 16, 2005. Activities associated with marketing of the program began in May 2004, prior to final negotiations with the California Public Utilities Commission (CPUC), and implementation continued through December 2005. The program trained 75 lenders in the five counties that surround the Bay Area; however, the program was unsuccessful in meeting loan volume or referral goals, as no loans were processed and no referral payments were made.

By late summer and early fall 2005, program staff recognized that the Loan Fund was not working. It lacked resonance with the lending officers and was not generating any volume of projects. In response, KEMA staff reduced their time on the program and closed out the program in December 2005.

Everyone associated with the program agrees that the Loan Fund did not demonstrate success in using loan officers to refer energy efficiency projects. Program staff had many theories as to why the program did not work; this process evaluation set out systematically to ascertain the reasons the program did not succeed. We conducted interviews with the six KEMA program staff available[1] and the PG&E contract manager; we also interviewed sixteen participating and ten nonparticipating lenders contacted by the program, as well as the three applicants who initiated participation in the program, but did not apply for a loan. We also interviewed program managers at six similar commercial energy efficiency loan programs offered in other jurisdictions.

FINDINGS

Our findings can be summarized into four reasons for poor performance:

1. Invalid market theory on the role of lenders to market energy efficiency loans
2. Insufficient market research
3. Program management missteps
4. Delays that reduced the program implementation period

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[1] Some contacts were no longer with the company.

Invalid Program Theory on the Role of Lenders to Market Energy Efficiency Loans

The program theory was grounded in the premise that lenders can be a conduit for identification of energy efficiency projects and the marketing of energy efficiency loans. It is clear from our conversations with lenders and our review of other loan programs that lending officers are an unlikely conduit for identification of energy efficiency projects and the marketing of energy efficiency loans. Thus, the program theory, though appearing to be valid due to success of a similar program in New York, was not valid.

1. **Lenders are too busy with their own work.** It was thought the Loan Fund would create a new delivery channel for energy efficiency. However, lenders mentioned that they saw a need for additional marketing to make borrowers aware of the loan opportunity before they came to the bank. Lenders also described competing priorities for their time that made it difficult to remember to promote the program to potentially qualified borrowers.
2. **Other programs typically do not use lenders as the conduit, but rely on the energy efficiency programs and contractors to market the loan to customers and the lenders to facilitate the dispersal of the loan**. The similarly-structured **New York Energy $mart**SM Loan Fund reports that just 21% of the commercial borrowers participating in the program were referred to the program by their lender; instead, most were referred through their participation in a **New York Energy $mart**SM program.[2] These research results were not known to KEMA in 2003.

Insufficient Market Research

It appears that the program lacked sufficient market research to estimate volume, and consequently operated under unrealistic program goals.

1. **The volume of projects anticipated was likely unrealistic, given the population of the five Bay Area counties included** (approximately 5.5 million). This population is approximately 30% of the population of New York—where the first full year of program implementation yielded just six commercial projects. For comparison, the **New York Energy $mart**SM Loan Fund program (operated by the New York Energy Research and Development Authority (NYSERDA)) closed only six commercial loans in its first year and only 29 in the second year. A realistic extrapolation for the five Bay Area counties would be two loans in the first twelve months of operation and nine in the second twelve months.
2. **Customers in many jurisdictions have historically chosen rebates over loans when they cannot select both; programs with high loan volumes typically allow**

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[2] *Market Characterization, Market Assessment, and Causality Evaluation,* ***New York Energy $mart**SM* *Loan Fund Program*. Prepared for New York State Energy Research and Development Authority. Summit Blue Consulting, LLC. Pg. 3. May 2006.

customers to use both rebates and loans. The original program plan would have allowed loans and rebates to be used simultaneously on the same *project*, but not on the same *measure*. The final Program Implementation Plan (PIP) accepted a lesser role for the loan fund in program financing, thus further reducing the potential market.

3. **It takes time to build a program**. It was unrealistic to assume that two years, let alone less than two years, would be sufficient to initiate a program, train lenders, and garner interest on the part of borrowers. The three projects that were reviewed by KEMA are just in the process of moving forward after one year.

Program Management Missteps

While KEMA clearly fulfilled its requirements to market the program and train lenders, they did not fulfill all program management responsibilities.

1. **KEMA did not alert PG&E staff to concerns about goals until the program implementation period had ended**. It is clear that the program missed key progress indicators early in the implementation period when lender recruitment was slower than expected. Yet KEMA did not notify PG&E of this at the time, nor later, as it became apparent that few potential borrowers were coming to the program.
2. **Resources allocated to pay for banking consultants were not used**, though they had been consulted during the program design phase and assisted KEMA by identifying and prioritizing contacts from lists of potential lenders. KEMA would have benefited from working with consultants during the program implementation period to inform them about the market and help them adjust the marketing and outreach strategies in light of changes to original program components.
3. **KEMA did not undertake the Administrative Law Judge (ALJ)-required evaluation efforts at the time indicated in their work plan**. The program could have benefited from a timely launch of process evaluation activities focused on identifying the issues behind the lack of projects.

Delays that Reduced the Program Implementation Period

The initial PIP proposed a two-year implementation period for the program. The PIP negotiations process reduced the program implementation period to 15 months, and the contract was signed three months later. This left just over one year to implement the two-year program concept.

CONCLUSIONS AND RECOMMENDATIONS

The main issues that the process evaluation finds to explain the non-attainment of program goals concerns the program design to use lenders as a conduit to project identification and the

unrealistic expectations of loan volume. A Loan Fund could work in California, but the lessons learned from this program should be incorporated into such a program design.

Conclusion 1: Following program plans is important for an ALJ-approved program. KEMA did not fully follow the program implementation plan, no evaluation was conducted during the program period and market consultants were not hired to consult on the program. Further, KEMA did not keep PG&E or the CPUC informed about problems they were having in achieving program targets. These factors resulted in a program as implemented that was not consistent with the program plan, which, had it been followed, might have identified solutions to the implementation challenges KEMA faced.

1. **Programs implementation plans should be followed.** Approved program plans are essentially written orders from the Administrative Law Judge, changes to these documents require ALJ assent.
2. **Program implementers should seek input from the utility and CPUC when programs are underachieving goals.** The program, as it was redesigned in the PIP process, was not the same program KEMA proposed. As they implemented the program and found that it was not working as expected, they should have informed PG&E and the CPUC that they were encountering problems. The required monthly reporting process is designed to permit the implementer to keep all parties informed.

Conclusion 2: Marketing and credibility of the marketing organization are key to loan program volume. If implementers seek a high volume of loans, it will be necessary to market the opportunity to borrowers through the general efficiency marketing efforts and through vendors, contractors, architects, and engineers who are likely to be involved early in remodeling or construction projects.

1. **Recommendation: Consider implementation of similar loan funds through an institutional partner like the State of California or the utilities**, both of whom can allow the program to exist in the background of a larger effort to promote energy efficiency, capturing the few customers each year for which the loan subsidy is critical.
2. **Recommendation: Establish a longer timeframe for program implementation and expect low participation in the first one to three years** as word of the opportunity filters through the targeted lenders and borrowers. A longer timeframe also allows for the time it takes for commercial projects to become fully formed, permitted, and implemented.

Conclusion 3: The barriers to borrower investment in energy efficiency persist. Loan programs offer a valuable financial service to consumers and businesses and do facilitate investment in energy efficiency for some. When considering a future loan program, program designers and policy makers should consider the following aspects:

1. **Recommendation: Keep the program simple for lenders and borrowers** by using a one-page application, an automatic referral process, or simple screening questions. Simplification could include on-line tools that allow borrowers, contractors, and lenders to enter project details and assess the benefits of participation specifically and energy efficiency generally.
2. **Recommendation: KEMA was correct in assuming multiple lenders are needed to be effective**. Future loan programs should seek to enlist multiple banks as partners to offer the program statewide.
3. **Recommendation: Establish a loan cap high enough to attract large projects that will garner publicity**. One of the benefits to loan programs is that other costs associated with the energy efficiency project can be incorporated. Consider the average cost of commercial remodeling and renovation projects when setting the loan cap.
4. **Recommendation: Consider ways for customers to use both a loan and a rebate program**. The CPUC is concerned about allowing customers to receive benefits from more than one PGC-funded energy efficiency program with the same project. Yet, loan funds typically are tied to rebate programs. Solutions such as a revolving loan fund approach, similar to that used by EWEB and SAFE-BIDCO can ensure that the funds are always available for future borrowers, thus reducing the double-dipping problem.

Conclusion 4: Delays caused by PIP and contract negotiations can affect the adequacy of the implementation period.

1. **Recommendation: The CPUC should acknowledge when contract and PIP negotiations have affected the proposed implementation period and seek a remedy that will ensure the implementers have a chance to fully demonstrate the program concept.** The acknowledgement and solutions could include such solutions as a change in the contract term to accommodate a full implementation period, a reduction in expectations for program results, or re-categorizing a program as a pilot with potential for renewal to accomplish the full implementation period.

1 INTRODUCTION

The California Energy Efficiency Loan Fund[SM] was proposed to the California Public Utilities Commission (CPUC) by KEMA in response to a Request for Proposals to implement Third Party Local Energy Efficiency Programs during the program years 2004 and 2005 (04-05). The CPUC sought to expand the energy efficiency program offerings throughout the state by soliciting for and then having investor-owned utilities (IOUs) contract directly with successful third-party implementers who proposed to run targeted niche programs in the service territories of each of the four investor-owned utilities in California: Pacific Gas and Electric, Southern California Gas, Southern California Edison, and San Diego Gas & Electric.

In early May 2006, KEMA contracted with Research Into Action, Inc. to conduct a process evaluation of the California Energy Efficiency Loan Fund (Loan Fund). This study was conducted at the request of the California Public Utilities Commission. It was funded through the public goods charge (PGC) for energy efficiency and is available for download at www.calmac.org. The report documents the evaluation findings and provides conclusions and recommendations.

PROGRAM DESCRIPTION

On September 23, 2003, KEMA submitted an initial proposal describing a targeted energy efficiency loan program, initially named the Positive Energy Loan Program, which would leverage Public Goods Charge (PGC) funds by subsidizing loans to small to medium-sized businesses in the San Francisco Bay Area, in the service territory of Pacific Gas and Electric (PG&E). The proposal was not selected in the first round of program proposal review by the CPUC but was selected later.[3] In May 2004, an initial Program Implementation Plan (PIP) was developed and submitted to the CPUC. Based on feedback from the CPUC, the PIP was revised and re-submitted to the CPUC in July 2004. It was officially approved on November 24, 2004, and a contract was awarded on December 15, 2004.[4]

The program, as it was finally approved, had several stages. Staff began by contacting each targeted bank directly by phone and attempted to set up an initial meeting with a key bank contact in order to conduct a recruitment presentation about the program. Following the

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3 The Loan Fund program was accepted after a complaint was filed to the CPUC questioning the scoring system because it had resulted in three programs, including this program, each with higher scores than some of the accepted programs, not being accepted in the first review process.

4 KEMA. *Final Report. California Energy Efficiency Loan Fund; Program* 1213-04.

presentation, program staff would provide the bank with a *Participation Agreement* and a copy of the program's *Policy & Procedures Manual*. The lending institution then had to return the agreement. The time and complexity involved in returning a signed agreement varied by institution, but could require the approval of a CFO and a Board of Directors, as well as a legal review.

Once a bank had signed up to participate, the program's Outreach and Marketing Manager trained lending officers in the institution and then stayed in regular communication through a primary contact at the bank. Banks usually asked that KEMA communicate with them through this liaison instead of contacting individual loan officers. KEMA checked in with participating banks at least once a month.

The PIP anticipated that banks would act as the primary conduit for program marketing and information, and assumed lending officers would refer all customers applying for renovation and construction-related loans to KEMA staff. After the application process had been revised and simplified (in March and April 2005), the lenders' marketing responsibilities consisted of providing information to borrowers about the program and urging them to contact KEMA

Once contacted by a borrower, KEMA staff would ask the borrower which organization had referred them to the program. If the borrower closed on a Loan Fund-qualified project, the lender would receive an origination fee; if the borrower ultimately used rebates from another energy efficiency program on their project, the lender would receive a referral fee.

The program trained 75 lenders in the five counties that surround the Bay Area and conducted walk-through audits with three potential applicants, but was not successful in meeting loan volume or referral goals. The last lender signed up for the program in August 2005. With an anticipated closing date of December 31, 2005, no other lenders agreed to sign-on after August and KEMA reduced their outreach activities in the fall. KEMA continued lender-support activities until December 16, 2005. As of December 31, 2005, no loans had been processed and no referral payments were made.

PROCESS EVALUATION APPROACH

A process evaluation relies on learning about the program experience by obtaining first-hand information from program staff, contractors, and participants to reveal the workings of a program and to articulate its strengths and weaknesses.

In their final report to PG&E, KEMA identified several program challenges likely to have affected the success of the program, including:

- The reluctance of lending institutions to commit the resources required to join the program, given the length of time for implementation and the fact that the program was likely to end in less than a year.[5]
- Loan subsidy caps that, at $200,000, were likely too low to spur interest in the highly competitive real estate market existing in the San Francisco Bay Area.
- Incentives for referral and loan origination that may have been misdirected. Successful referrals or closed loans earned incentives for the lending institution, not the lending officer. Incentives for the lending officer, specifically, may have been required to compel them to deviate from standard lending practices and embrace the program.
- A limited service territory that effectively excluded the largest statewide lenders, who were unwilling or unable to participate in the five-county "pilot" area.
- Smaller banks and community lending institutions that participated may not have had an adequate volume of qualified borrowers.

Given that the program's operational objectives were not met, the objectives of the evaluation were defined by the CPUC as: "To assess the organization, operations, management and development approaches employed, as well as to document the associated market conditions through a process evaluation to determine the causes and potential solutions associated with non-attainment of program outcomes."

The process evaluation team developed structured interview guides for the following key groups: staff at KEMA and PG&E, participating and nonparticipating lenders, and applicants. Additionally, representatives at similar commercial loan programs operating in other jurisdictions were also contacted and interviewed. Interview guides used for each of these groups were reviewed by the Master Evaluation Contractor on behalf of the CPUC. (See Appendix A for copies of the data collection instruments.)

In-depth interviews were conducted with six KEMA staff, one contact at PG&E, three applicants, sixteen[6] participating lenders, ten nonparticipating lenders, and six contacts at similar programs implemented in other jurisdictions.

The interview data are primarily qualitative, and were analyzed by comparing and contrasting responses to provide a consensual view of the program. In some cases, unique voices may identify concerns or successes, yet they are only called out to illustrate a nuance, point to an opportunity for program improvement, or acknowledge successes that are otherwise unknown.

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[5] The program ended less than a year from the contract approval date of December 14, 2004; however, program activities began prior to this date, as the approved PIP set the program to begin October 2004.

[6] Interviews were completed with sixteen participating lenders and three provided only partial interviews.

Whenever the qualitative responses were able to be categorized and tabulated, the results are presented in tables.

THIS REPORT

Following this introduction, Chapter 2 describes the development of the program, as described in PIPs, monthly reports, and through interviews with key staff at KEMA and PG&E. Chapter 3 describes the experiences of participating and nonparticipating lenders, and Chapter 4 describes the experiences of borrowers and the specific experiences of the three applicants that contacted the program. Chapter 5 presents the results of a review and analysis of loan programs operating in other jurisdictions. Finally, Chapter 6 summarizes the findings and presents conclusions and recommendations.

2 PROGRAM EXPERIENCE

This chapter presents information gathered in interviews with KEMA and PG&E staff, as well as program documents including the proposal, the five PIPs revised during program development, the monthly reports prepared by KEMA and submitted to PG&E, and the program workbook documentation of labor billed.

PROGRAM DESIGN

According to program proposal documents and interviews with program staff, the design, goals, and objectives for the Loan Fund were developed by KEMA, based primarily on previous experience supporting a similar program for the New York State Energy Research and Development Authority (NYSERDA). KEMA derived their information on market operations and market intelligence from their three-year experience as a contractor for NYSERDA's **New York Energy $mart**^{SM} Loan Fund program.[7]

The design of the California Energy Efficiency Loan Fund (Loan Fund) centered on using lending officers to market energy efficiency programs and projects to their borrowers who were undertaking construction, renovation, and tenant improvement loans. Specifically, the Loan Fund was to buy-down the interest rates on qualifying loans to a below-market rate. The loans would be approved by local banks and used to finance the implementation of cost-effective, energy efficiency projects among their small to mid-sized commercial customers. The program:

- Targeted hard-to-reach commercial and industrial customers in the Bay Area
- Relied on participating banks to identify projects
- Aligned with the technical criteria of other relevant local programs and further supported these projects by reducing the borrowers' interest rate for the energy efficiency portion of their project (up to $200,000) by four percentage points
- Offered performance fees and referral fees to lenders in an effort to stimulate marketing by lending officers of energy efficiency programs

The Loan Fund was expected to tap into a naturally-occurring market event: the point at which small and mid-sized nonresidential customers approach their loan officers for funding to complete construction or remodeling projects. In their proposal, KEMA also described the program as a way "to enhance the effectiveness of [the other energy efficiency] programs by

7 KEMA provided marketing, recruitment, and other support services for NYSERDA's program until mid-2005.

providing an important and effective marketing channel" through which these customers will become aware of program opportunities.[8]

Figure 2.1 diagrams the program logic and illustrates how the program activities were expected to achieve the program's goals.

In interviews, program contacts described targeting the small to mid-sized commercial market because of indications that this market:

1. Is underserved (less likely to have a relationship with PG&E or other resources when making decisions),
2. Was likely to have a relationship with a lender or loan officer, and consequently,
3. These lenders would be a good conduit into this market.

In their proposal, KEMA offered the following as rationale for the program:

- Studies show that commercial and industrial customers often become informed about energy efficiency measures and programs in the course of construction and remodeling projects.
- Studies show that commercial banks are an under-utilized conduit to commercial customers and that they have played little, if any, direct role in financing energy efficiency projects. KEMA argued that, given the proper support and incentives, lenders could provide an effective way to market energy efficiency programs.
- The prospect existed for the Loan Fund to leverage energy efficiency projects with relatively small amounts of PGC funding, as opposed to the large incentives commonly offered to the "hard-to-reach" small commercial customers.

Market Information, Goals, and Objectives

KEMA relied on previously-collected information about the target market—including research about the number of small businesses in California, generally, and the Bay Area, specifically—to develop the specific goals for the program.[9] The research indicated the presence of over 177,000 businesses with fewer than 50 employees (a proxy measure for less than 200 kW in demand) in the Bay Area. KEMA then used NYSERDA program data to extrapolate demand for the California program.

[8] *Positive Energy Loan Fund Program Proposal*, prepared by KEMA-Xenergy, Inc. September 23, 2003. pg I-5.

[9] Data from utility billing records, as reported in the *1999 Statewide Small/Medium Nonresidential MA&E Study,* prepared by XENERGY, Inc. for Pacific Gas and Electric Company, December 2000.

Figure 2.1: KEMA Loan Fund Logic Model (May 5, 2006)

INPUTS: *Experience and market knowledge, funding for program activities*

KEY EXTERNAL INFLUENCES: *Overall level of business growth and investment, existing lending practices, consolidation or changes in the finance industry, general economic conditions*

ACTIVITIES

KEMA recruits participating lenders

Participating lenders market the program to small commercial and industrial customers

Lending officers refer customers applying for construction-related loans to the program

OUTPUTS

Participants are informed about all options, including rebates, loans, and technical assistance

Participants choose the Loan Fund financing option

Incentives are provided to lenders who refer energy efficiency projects for low-interest loans

KEMA assists participants in preparing applications

Loan Fund monies buy down interest rates by 4% – leveraging SBC funds and facilitating more efficient construction projects

Banks are stimulated to participate in energy efficiency project financing

SHORT-TERM OUTCOMES (1-3 YEARS)

Cash flow improved for energy efficiency projects

Measures installed that save energy and money

kW/kWh savings

Economic, environmental and other non-energy benefits realized

A new effective channel is developed for marketing energy efficiency programs to small commercial and industrial customers

The NYSERDA program data were used to predict the percent of loans that would be expected to be greater or less than $50,000, but were not used to describe the rate or flow of loans closed

by NYSERDA in the first year of the program. Six commercial loans were closed by the **New York Energy $mart**SM Loan Fund in year one and 29 were closed in the second year. It is notable that this number is substantially lower than the 60 assumed for the Bay Area counties, whose population is less than a third (30%) of New York State's.

Quantitative goals began with the projections just described and were modified based on a review of the Express Efficiency Program operating in California at the time and KEMA's experience in other states. The program negotiations took from March to August 2004, Table 2.1 displays the goals KEMA proposed in the final PIP, assuming an October 1, 2004, start date.[10]

Table 2.1: Milestones[11]

GOAL	PERFORMANCE (OFFICIAL START DATE OCTOBER 1 2004)	GOAL ACHIEVED OR NOT ACHIEVED
Within 2 months after project start, establish policies and procedures for the loan component and program management, including eligibility criteria, application and approval procedures, interest rate reduction pay-out, project monitoring, and M&V.	Program policies and procedures were established by December 1, 2004.	Achieved
Within 2 months after project start, recruit 10-15 lending institutions for participation in the program and obtain a memoranda of understanding.	Two lending institutions signed up by November 30, 2004. Five lending institutions were participating by December 31, 2004. Six institutions were participating by January 31, 2005	Not Achieved
Within 4 months after project start, train a minimum of two lending officers in each participating lending institution.	By February 1, 2005, 58 lending officers were trained from 6 institutions.	Achieved
Within 20 months after project start, close 60 loans for energy efficiency measures installed as part of construction or renovation projects.	By December 31, 2005, no loans were closed. Program term was less than 20 months.	Not Achieved
Within 20 months after project start, package and refer 80 energy efficiency projects for successful completion through other programs.	By December 31, 2005 no projects were referred. Program term was less than 20 months.	Not Achieved

[10] The *Final Program Implementation Plan* notes the project start date of October 1, 2004. *Final Program Implementation Plan*, August 1, 2005. pg I-1.

[11] As documented in the *Final Program Implementation Plan*, August 1, 2005. pg. I-3.

Another objective of the program was to stimulate participation of banks in energy efficiency project financing by helping them become more aware of the options that exist for their borrowers and encouraging their borrowers to pursue those options. As evidence for the need to improve the role of lenders in advocating for energy efficiency in underwriting, the Loan Fund proposal noted that none of the small commercial and industrial customers interviewed for the baseline portion of the 2000 Market Assessment mentioned approaching a bank for project financing or any type of help in implementing energy efficiency measures.

PROGRAM DEVELOPMENT

The original proposal was rejected by the CPUC, but then was approved in a subsequent round of review, which led to the program being accepted conditionally and undergoing further negotiations.[12] Negotiations and revisions continued for about six months, with the program receiving preliminary approval in May 2004. A revised PIP was submitted in June 2004, and again in July 2004. A project kickoff meeting was held on July 20, 2004. A start date of October 1, 2004, was identified in the final PIP, revised August 1, 2005. The CPUC officially approved the PIP on November 24, 2004, and a contract was signed on December 15, 2004, with a requirement that all loan applications to be considered for the program be submitted by December 16, 2005.

Program contacts note that KEMA originally proposed that the program be classified as a local information program, although the interest rate subsidy contains some features of incentive programs. By proposing the program as a communications program, instead of an incentive program, KEMA staff expected the program would not compete with existing incentive programs nor be treated as a stand-alone program. The program was ultimately approved with energy savings goals.

Design Changes

Program contacts described several components of the program that changed in subsequent revisions of the PIP. One area of negotiation between KEMA and the CPUC centered on “double-dipping”—the potential for customers who receive incentives for their projects to also receive an interest rate buy-down through the Loan Fund, effectively increasing the subsidies for these customers above what other customers would get. Other changes included reducing the maximum loan amount and expanding the geographic scope, each of these is discussed below.

[12] The reason for the Loan Fund not being accepted in the first round was not indicated to KEMA. During negotiations, the focus of the redesign was on double-dipping and program classification.

Double-Dipping

In the original proposal, the potential for double subsidies was addressed by proposing that a given measure in a project could not receive both incentives and interest rate subsidies, but that borrowers would be allowed to use Loan Fund financing to support other expenses within the same project. This could include expenses associated with installing energy efficiency measures in remodeling or construction projects receiving rebates for other measures. This structure would provide the managers of other incentive programs additional financing resources to support proposed projects and potentially encourage more comprehensive efficiency projects.

In negotiation with the CPUC, the decision was made that only one source of PGC funds could be used on a project and the language was changed accordingly. In the May 2004 PIP, the language says that "interest rate subsidies funded by PGC funds should not be used to finance the given measures in a given project for which PGC-funded rebates have been committed."

The PIP was revised again in June and the language describing the double-dipping issue became even more unambiguous; noting that customers would be required to sign an affidavit to the effect that they have only received resources from one PGC-sponsored program. KEMA planned to verify the accuracy of the certification on a sample of projects. KEMA staff noted to the evaluators that the effect of these changes meant an end-user could obtain a loan in which the qualifying portion could be funded at the lower interest rate, while the rest of the loan was at the market rate, resulting in either two loans or a combined loan with an interest rate slightly lower than the standard market rate.

Loan Cap

The maximum amount allowed per loan also changed during PIP revisions. The per-loan cap was originally proposed at $1 million, then reduced to $750,000, and finally to $200,000.

In the original proposal, the dollar limits were described as being set "fairly high" ($1 million) in order to facilitate lending for larger projects. In the June 2004 PIP, the dollar limits were lowered to $750,000 (still described as high enough to facilitate lending for larger projects). In July 2004, following meetings with potential banks, the maximum amount per loan was lowered to $200,000. According to the PIP and to comments from staff during the interviews, the cap was lowered to "prevent exhaustion of the incentive resources by a few large loans."

During the staff interviews, KEMA staff noted that some lenders thought the $200,000 cap was too low for bigger projects, particularly those involving new construction. One program contact described the $200,000 cap as having emerged from concerns about equity, but that the amount may have been too low.

Geographic Coverage

During initial outreach activities to potential lending organizations, program staff heard concerns about the limited geographic coverage, particularly from larger, statewide banks. The program could not be implemented statewide, but in response to requests from a network of eleven community banks, in July 2005, KEMA sought to add Santa Clara County to the list of eligible counties.

The change was approved, expanding the program coverage area from four counties to five[13]. However, even with the change approved, the lending organization declined to participate in the program. By the time the change had been implemented (late summer 2005) the lending organization was unwilling to participate in a program that they recognized would be ending within six months (December 2005).

Timeline

The implementation timeline shrank during negotiations with the CPUC, from an originally-proposed 24 months to 18 months in the revised PIPs, and ultimately to 13 months when the PIP was approved.[14]

This change was caused primarily by a delayed initial approval that pushed early program activity from January to June 2004. Program staff began outreach and marketing preparation activities in May and June 2004, and had signed up the first two participating lenders by the end of November 2004. The program was not forced to delay signing up lenders while the program contract worked its way through the system. However, staff acknowledged that they waited until they were able to say with confidence that the contract would be approved and signed, which was in late August and September 2005. It is not clear what effect an additional six months would have had on the program.

Target Market

The program effectively had two target markets: the end-use customers likely to apply for a loan and the lenders likely to interact with eligible borrowers.

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13 This change order resulted in a final PIP, with an approval date of July 27, 2004, but a revised date of August 1, 2005.

14 This assumed starting the program by June 30, 2004, and finishing by December 31, 2005. The timeline included in the final PIP indicates that program activity could have pushed into the first two quarters of 2006, if additional time were needed to complete and close existing projects or those in the timeline, and did not to provide an additional six months of marketing.

Targeted Borrowers

The PIP provides a detailed description of the commercial and industrial businesses to be targeted, including retail, small office, service establishments, and warehouses averaging less than 100 kW of annual maximum electricity demand.

According to program contacts, the program evolved to a “project packager” approach. Rather than expect that small businesses would have time to identify and interact with energy efficiency programs, KEMA’s role was to guide these borrowers through the audit process and then either provide turnkey services to develop the financing package with their lender, or refer them to other programs.

As shown in Table 2.2, all of the barriers named in the PIP and addressed through program features are barriers associated with end-users. The program therefore was largely one targeted to reduce the barriers for end-users.

Table 2.2: Barriers and Levers

BARRIER	PROGRAM ACTIVITY/LEVER
Lack of Access to Capital/ High First Costs	Loan funds are used to structure project financing in which monthly energy savings exceed monthly loan payments.
Information or Search Costs	Banks serve as an important channel for informing small business owners of the availability of energy efficiency programs when their customers seek to finance renovations or remodeling.
Hassle or Transaction Costs	Program offers additional financing and project management resources at no extra cost; these can be used in conjunction with other programs providing audit services; the program has a simple application process.
Performance Uncertainty	All applications are reviewed to assure they meet technical requirements.
Access to External Financing	In theory, financing energy-efficient improvements should improve cash-flow and creditworthiness by reducing net occupancy costs; however, given other lender considerations, the program sought to make lenders more comfortable with loans to energy efficiency projects—ultimately building marketing channels for other energy efficiency products and services.

One program contact described how direct install programs are a successful strategy to reach the small commercial market because of the lack of management capacity and competing demands associated with overhead in small commercial businesses. For this reason, program staff anticipated providing full service to borrowers who contacted the program.

“We targeted a kW size, but ended up using less than 150 employees,” said one contact at KEMA. “There is a correlation—it’s an underserved market and we decided from the literature that they would have more contact with banks than with utility programs. Few small businesses had heard of [energy efficiency] programs, and fewer were participating.”

Said another contact, "We assumed they would have a relationship with their lender or loan officer, and may even know them by name…we thought that the lenders could be a good conduit into these projects." Table 2.2 details the barriers and program-developed levers noted in the final PIP. [15]

Targeted Lenders

No specific barriers related to lenders or lender behavior were identified or addressed in the PIP. The program design appears to assume that targeting lenders would help borrowers. However, the primary barriers experienced by the program were those existing at the banks and with individual lenders. KEMA contacts report spending hours mapping out program processes and identifying the aspects of the program most attractive from the lenders' perspective.

Recruitment and marketing activities primarily targeted the lenders required to refer the target market to the program. According to program contacts, the lending institutions that joined the program or expressed interest tended to have a small commercial lending department, an SBA component, or stated that they were likely to have qualifying customers.

Program contacts describe "a lot of back and forth" at the beginning—listening to consultants and lenders, and adjusting the program design accordingly. Outreach to targeted lenders was informed by conversations with banking consultants and contacts early in the program implementation period, in the summer of 2004.

Incentives to participation for lenders were described in the PIP, and included:

- Small businesses targeted in economic development areas that might meet Community Reinvestment Act requirements
- An opportunity to provide a new loan product for small commercial customers, potentially increasing goodwill and supporting commercial relationships
- A small performance fee to lenders who marketed the energy efficiency loans and referral fees for having a customer go on to use other incentive programs

The result of all of the program changes was effectively a different program than had been proposed and a different program than that implemented by KEMA for NYSERDA.

PROGRAM ADMINISTRATION

KEMA relied on staff experienced with the NYSERDA loan program to direct the California effort and to pursue the marketing efforts with lenders. These three staff members worked out of

[15] As documented in the *Final Program Implementation Plan*, August 1, 2005. Section I.B.2.

KEMA's Massachusetts office, communicating with the Oakland staff assigned to support the program with engineering, audits, hotlines, and outreach. KEMA also solicited guidance from banking consultants who were able to frame messages for communication with lenders and could make connections in the Bay Area banking industry. However, the banking consultants were mainly involved during the initial design phase and were not available after the program officially started (October 1, 2004).

Timesheets and Billing

Recruitment began by contacting lenders through telephone and in-person meetings and presentations. Once an organization had been reached and agreed to participate, training was organized for lending officers and marketing materials were delivered. The Outreach and Marketing Manager reported spending at least 50% of her time on the program when the marketing, recruitment, and training activities were at their highest level.

Three high-level staff, including the Project Manager in Massachusetts, reported their time on the program was clustered in the early months of its implementation. Staff report being focused on design and structure questions, communicating with the CPUC, setting up program processes, and conducting initial outreach to the lender market. This is confirmed by the time billed via monthly reports to PG&E, which included over 300 hours of senior staff time accruing between May 2004 and December 2004, the months during which program development and negotiations occurred.

Analysis of the hours reported after these months of start-up and negotiation reveals a relatively steady level of effort on the part of other staff from December 2004 through September 2005, although December 2004 and January 2005 both required more than 100 hours of staff time. In all of these months, the bulk of time dedicated to the program was that of the Program Outreach and Marketing Manager. Less than 100 hours were billed to the program by the Project Manager and Program Liaison between December 2004 and April 2005.

The process evaluation team was also asked to assess the allocation of staffing resources to the project. Table 2.3, displays the program expenditures to April 2006; the total expenditures were less than 50% of projected administrative and marketing expenses. Since the PIP did not describe all of the hours and staff that would be allocated to the project, clearly many hours were estimated for lower level and support staff, including one staff member who served as Outreach Manager following the departure of the original Outreach Manager.

Table 2.3: Expenditures to April 2006

BUDGET AND EXPENDITURES	BUDGET	CUMULATIVE & COMMITTED	PERCENT OF BUDGET	UNSPENT
Total	**$994,578**	**$231,380**	**23%**	**$763,198**
Administration	$380,849	$185,380	49%	$195,469
Marketing	$58,815	$24,282	41%	$34,533
DI	$505,533	$19,060	4%	$486,473
EM&V	$49,381	$2,658	5%	$46,723
Financing			NA	

Table 2.4 displays the PIP projected hours and actual hours billed from the workbooks. Projected hours were calculated from the projected percent of time dedicated to the project, as described in the PIP under *Staff and Subcontractor Responsibilities*. We converted the projected percent of time into hours, assuming a two-year implementation time period with 2,080 hours of work, per year, per person. The projected hours only included "key staff" while the workbook shows all hours billed.

What is apparent from Table 2.4, is that the KEMA staff with billed and projected hours most similar were those staff who would have had to be involved in both initiating and terminating the program: the Project Manager and Outreach Manager. Thus their billing is as expected. Two staff who did not bill as much as was projected were slated to process projects that came into the program: the Program Liaison and Financial Operations Manager. Thus their low billings seem reasonable.

There were however, two key staff positions that did not bill to the project and potentially could have provided useful information to the program team and helped them understand the reason for poor market response to the program, these two positions—Consultant-Program Marketing and Lending Officer Training—were each allocated 250 hours (total 500). According to KEMA staff, these banking consultants had been contacted and consulted with during the RFP and program development stage, but not after the program launched in October, so KEMA relied on their own experience. It is possible that had these consultants been involved with the project as it was finally implemented, they would have been able to more quickly identify the reasons for poor market response to the Loan Fund.

A review of time billed to the program by all staff reflects declining time spent on the program after the spring of 2005. Program contacts report that by mid-summer of 2005 (five to six months after the contract was signed) they became concerned about the lack of loan applicants, given the implementation timeframe. "We signed the 11th lending institution in August 2005, and they were one of the first banks we talked to… the decision-making process (for banks) can be really long, or it can be really short." The time dedicated to the program by the Outreach and

Marketing Manager tapered off by fall 2005, as KEMA began preparing to shut down program operations.

Table 2.4: PIP-Identified Key Staff: Projected and Actual Hours Billed

TITLE	PROJECTED HOURS		ACTUAL HOURS BILLED		
	NUMBER	PERCENT OF TWO-YEAR FTE	NUMBER	PERCENT OF TWO-YEAR FTE	PERCENT OF PROJECTED HOURS
Project Manager	374	9%	260	6%	70%
Program Liaison	416	10%	51	1%	12%
Outreach Manager	291	7%	233	6%	80%
Financial Operations Manager	291	7%	0	0%	0%
Tracking Database and Web Site Development	83	2%	34	>1%	41%
Consultant-Program Marketing and Lending Officer Training	250	6%	0	0%	0%
Consultant-Program Marketing and Lending Officer Training	250	6%	0	0%	0%
Subtotal: PIP Allocated Hours	**1,955**	—	**578**	—	**30%**
OTHER STAFF					
Project Facilitation, Energy Audits, Referrals	0	—	37	2%	—
Project Facilitation, Energy Audits, Referrals	0	—	48.5	2%	—
Project Assistant	0	—	51	3%	—
Program Assistant	0	—	11	1%	—
Data Entry	0	—	16.3	1%	—
Outreach Manager	0	—	1,061.5	54%	—
Project Assistant	0	—	38	2%	—
Project Advisor	0	—	13	1%	—
Data Entry	0	—	20.5	1%	—
Program Identity	0	—	7	0%	—
Marketing Materials	0	—	28.5	1%	—
Project Assistant	0	—	28.5	1%	—
Project Assistant	0	—	1.5	0%	—
Translation Assistant (Chinese)	0	—	9	0%	—
Total	**0**		**1,371.30**		

It is difficult to assess the anticipated level of staff resources required and if this was met, because time is only allocated for senior staff in the proposal and PIPs. The bulk of the work was performed by non-key staff at KEMA, who track their hours but are not included in the labor allocation in the proposal; each of these billings appears to reasonable, but it is not clear what would have happened had there been 60 program participants. The staff person with the largest number of hours in the project was experienced in outreach and the hours were appropriate for her role in the Loan Fund, as she had done similar work for the NYSERDA program. Finally, KEMA contacts report that the staffing level was adequate for the workflow and no issues related to lack of staff resources were reported in the interviews or to PG&E.

Program Evaluation

The PIP specified that the evaluation contractor would be selected by February 2005, with a mid-point program assessment by May 2005. The evaluator was not hired until April 2006, almost a year after the mid-point assessment was to have been completed.

Third-party program implementers for programs in 2004-2005 were responsible for hiring their own evaluation contractors and contacts at KEMA admit that not hiring an evaluation contractor for the Loan Fund was an oversight. The Project Manager described being consumed by his own evaluation and project work in the summer of 2005 and simply failed to release the evaluation RFP.

In February 2006, the PG&E contract manager noted that the EM&V funds had not been spent. She asked KEMA to explain why they had not hired an EM&V contractor. The response from KEMA on March 15, 2006, was that "the response to the loan fund offer has been disappointing…. In light of this, we did not feel it was useful to engage an EM&V contractor."[16] KEMA also noted that they had prepared an evaluation plan at one point that assumed "there would be a number of transactions to examine." The lack of transactions made the initial evaluation plan obsolete.

During the interviews, KEMA contacts again noted that given the low level of program activity, they were unsure of the value of the evaluation and yet also confirmed a desire that the evaluation be completed.

PG&E Role

PG&E had very little influence over the design or implementation of the program and contacts at KEMA report no issues in their interactions with PG&E regarding the Loan Fund. The program was selected and a contract signed by the CPUC. The PG&E Contract Administrator managed the contract on behalf of the CPUC, reviewing monthly reports prepared and filed by KEMA and

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16 Email correspondence from Mitchell Rosenberg to Lisa Cosby, March 15, 2006.

acting as a liaison; this included tracking change orders and approving payments. PG&E was motivated to review monthly reports carefully because the CPUC can "disallow" expenditures if the they determine that PG&E should not have paid an invoice.

PG&E staff used a checklist to assess the completeness and reasonableness of monthly reports, looking mainly to see if the workbook matched the narrative. The PG&E Contract Administrator was unaware of any problems with the program. The PG&E contact described her role as assessing the implementation of the contract, not as influencing program implementation. She also noted that there were no indications of difficulties in the monthly reports and our review of the monthly reports confirmed her statement: "The reports went from 'everything is going well' to 'we're winding down the program because there aren't any loans. They seemed to try hard; they did what they said they'd do. They certainly trained a lot of lending officers."

MARKETING AND OUTREACH

The marketing and outreach proved to be reasonably successful in its efforts to train individual lenders, but fell short of other goals, including the number of lending institutions ultimately involved. The Outreach and Marketing Manager reports the shortest timeframe within which an organization decided to participate was four to five months. Staff first met with lenders in July 2004, and had one signed up in October 2004 and another in November 2004, yet one who they met with in July 2004 did not sign up until August 2005 (13 months later).

Contacts could identify no known differences between the anticipated and actual market conditions associated with the target market and did not offer this as a reason for the dearth of participants. There were no spikes in interest rates, notable drops in commercial or construction spending in the Bay Area, or other business news that would have affected the demand for loans.

Program contacts reported that lenders gave the impression their loan volume was stable or growing and that the volume was large. "They expected high demand, or at least moderate demand. Some expected to close more than a couple of loans… others didn't work in small business lending, but wanted to be able to offer it if someone came in." According to program staff, lenders offered no indications that their loan volume was decreasing. Contacts heard an occasional anecdotal comment about having no commercial loans this month, but this was not consistently reported by other lenders or in the *Bay Area Business Journal*, so it was not considered representative. The Outreach and Marketing Manager also reviewed local business papers, including the *Bay Area Business Journal* for relevant information, including efforts to identify lenders who work with small commercial borrowers.

Financial institutions were targeted through work with banking consultants, who helped identify likely organizations, monitoring local media, data from the FDIC on lending volume, and data from the SBA. These efforts resulted in a three-tier list of approximately 70 lending institutions. Program contacts report beginning with the names in the top tier—approximately 25. Contacts found that the list needed to be adjusted due to on-going turnover among loan officers, mergers, or acquisitions. However, staff were able to expand the list by adding new names, as acquired

through word-of-mouth referrals, nonprofits focused on community development and entrepreneurship, and non-traditional lending organizations.[17]

According to the Outreach and Marketing Manager, the most effective outreach strategy was persistent calling. She focused on reaching the right person by phone and setting up an in-person meeting in order to present the details of the program—a key step in signing up the bank.

The program trained 75 participating lenders, but the lack of loan applications or projects implies that barriers to program participation existed and continued to affect participation in a way not addressed by training participating lenders.. During interviews, staff members identified the aspects of the program they believe affected program participation. Several of these mirror comments in their final report:

- The loan limit/cap was too low.
- The territory was limited, not statewide.
- There was a short-term implementation horizon.
- A lack of loans affected further recruitment.
- There was a lack of a construction loan component (initially).
- There was an administrative burden associated with the applications (initially).

Staff report adjusting what they could in light of feedback from lenders: they drafted rules and added a construction loan component and reduced the application process from forms completed by the lender and applicant to a simple referral process. However, these adjustments did not ultimately increase the volume of projects. “Clearly it wasn’t working, and staff were moving on. It just wasn’t moving, we knew the contract period was going to come to an end and that it would be difficult to persuade the CPUC to fund it again in light of what had happened.” Instead of pursuing an extension, KEMA staff began planning for program cessation, and in November notified lending officers of the final dates by which paperwork would need to be submitted.

“Lending officers are judged on volume and quality of their loans,” said one program contact. “There is such an emphasis on volume that getting them to deviate from their standard pattern is hard. There’s not enough of a benefit to offer to them to make it seem worth it. It might have been better to have more support from people higher up in the lending institution, but clearly it’s not a very important thing from the perspective of the banks.”

Program contacts identified several lessons learned about the lending market and programs seeking to work with lending officers. According to staff:

[17] One such organization was SAFE-BIDCO, a state agency.

- A simple, one-page application, automatic referral, and simple screening questions are critical to encouraging lending officers and borrowers to consider participating.
- A statewide program might be more successful because the larger, high-volume lenders would be more likely to participate.
- The volume of potentially-qualifying project loans is likely to be less than anticipated and, given the portion of those qualified who drop out or choose not to apply, any future program should expect commercial participants to trickle in to a program before building to a steady, but low rate.

SUMMARY

KEMA was able to recruit lenders quickly to provide personalized marketing and outreach, and offered one point of contact for lenders seeking information. KEMA was also confident that the organization possessed the technical expertise needed to support the program as projects emerged. KEMA staff were initially encouraged by enthusiasm among lenders for the program, enthusiasm that continued even at the end of the program, when some lenders expressed dismay that it was ending. The fact that lender enthusiasm did not translate into loans or projects is perplexing to KEMA staff, particularly given that much of the program processes and structure were modeled after NYSERDA's successful **New York Energy $mart**℠ Loan Fund program.

PG&E contacts report receiving program reports that were on time, accurate, and contained well-documented activities. Additionally, PG&E contacts report KEMA staff were professional in their interactions and responsive to requests for additional information.

By early fall 2005, it became clear to the program staff that the Loan Fund was clearly was not working, that it seemed to lack resonance with the lending officers, and that it was not generating any volume of projects. In response, KEMA staff began focusing on other priorities, reduced their time on the program, and planned to wrap-up the effort.

Structural Challenges

Regardless of the success KEMA staff had recruiting and training loan officers, the program faced structural challenges that reduced its attractiveness to lenders and borrowers.

Program Length

The timeframe, as implemented, was consistent with the experience of loan programs run elsewhere, which typically experience a slow year or two at the beginning before settling into a more consistent volume. One program contact described the program timeframe as "disconnected" from the reality of the activities and market targeted—since these projects can take a year or two to become fully formed, permitted, and implemented, a program up and running for a year will be unlikely to support complex projects.

Low Loan Cap

A higher cap could have helped attract projects, including larger, more high-profile projects that translate well into case studies and promotional opportunities. The $200,000 cap was an artifact of the program design and efforts to ensure sufficient funds would be available for a substantial number of small to mid-sized businesses.

Simplicity

The application and referral process was simplified during program implementation, but this occurred almost six months after lender recruitment began, after many lenders had been trained, and with less than ten months left in the program timeframe.

Double Dipping

Allowing the program to mix-and-match financing with incentives to push more comprehensive projects forward would likely affect the volume of projects. Given the high incentives available in California at the time for small to mid-sized businesses, a loan program would have likely been attractive only if it could be used in tandem with other incentives.

Mangement Missteps

In hindsight, it is clear that the structural features of the program provided challenges to implementation. Unfortunately, KEMA management did not seek solutions to these problems early through working with banking consultants as outlined in their PIP, or informing PG&E of all of the challenges they were facing.

Banking Consultants

The original banking consultants were not available once the project contract was signed, yet KEMA did not seek other consultants to help them understand what was occurring as the project was slow in getting lenders to sign.

Informing PG&E

From the outset, there were indications that the program was not proceeding as planned. The first milestone was to sign ten to fifteen lending institutions by December 1, 2004; they had two by this date, six by February 2005, and ten by June 30, 2005. These targets were clearly not being achieved in sufficient time to meet the goal, yet KEMA never discussed this with PG&E.

3 LENDER EXPERIENCES

This chapter focuses on lenders and presents the results of telephone surveys with 16 representatives from the eleven participating institutions and 10 representatives from a list of 26 organizations who did not participate in the program.

Interviews with participating lenders focused on their experiences with the Loan Fund, beginning with when they first became aware of the program. We also inquired about the contacts' normal lending activity, their experiences with other loan programs sharing features of this program, and the importance of various loan program features to their institutions. As appropriate for the contact, we sought reasons why lenders did not participate in the program, or why prospective borrowers did not apply to the program. Both groups were asked for suggestions for improving the program.

SAMPLES AND DISPOSITIONS

KEMA provided the evaluation team with a list of 107 names of employees from the eleven participating lending institutions who had participated in a training session about the Loan Fund. From this list, 25 duplicate names were deleted, leaving a population comprised of 82 individuals. These 82 individuals represented 24 different branches at eleven unique lending institutions.

Calls were made to individuals in every branch in an attempt to obtain a diverse set of program experiences. However, because some of the individuals no longer worked at the location, or simply refused to be interviewed, it was not possible to interview a contact from each of the 24 branches. Ultimately, 16 interviews were completed with individuals from each of the eleven institutions (Table 3.1). An additional three contacts provided partial interviews and information from these three interviews is included where available.

To get as accurate a picture as possible of the program's efforts to recruit and work with participating lending institutions, we prioritized reaching the primary program contact at each of the eleven lending institutions. KEMA provided a primary contact name for each of the eleven institutions, as well as the names of the other trained lenders. Among the 11 primary contacts, interviews were completed with eight. Two of the eleven had left their respective companies, and one referred us to a better contact (also on the list).

Table 3.1: Disposition of Interview Attempts

DISPOSITION		PARTICIPANTS	NONPARTICIPANTS
Contacted	**Interviewed**	19	10
	Not Qualified	4	0
	Referred to Another Contact	3	0
	Refused	2	3
	Not Available During Survey	1	7
Not Contacted	**No Attempt – Duplicate Branch**	40	0
	Duplicate Name	25	0
	Left Company	8	6
	Calls Not Returned	5	0
Total		**107**	**26**

KEMA also provided the project team with a list of 26 lenders who had been contacted by the program, but which had either declined to participate or had not agreed to participate (seven of the 26 had firmly declined, the remainder had failed to respond before the program ceased recruitment activities).[18] We attempted to contact all 26 lenders in an effort to complete 7 to 15 interviews, ultimately completing 10 interviews.

LENDER CHARACTERISTICS AND CUSTOMER BASES

The 11 participating and 10 nonparticipating lending institutions comprised a variety of types of organizations, including: community, national, and international banks; nonprofit organizations; a credit union; and a state agency (Table 3.2).

[18] Some organizations that were approached during the original recruitment were not contacted for this survey. These organizations cannot participate in programs such as the Loan Fund due to lending restrictions (e.g., cannot fund capital improvements), funding restrictions (e.g., can only disburse HUD funds), or other restrictions. These organizations are typically community development corporations (CDCs) and other locally focused non-profits.

Table 3.2: Types of Lenders Contacted

LENDER TYPE	PARTICIPANTS	NONPARTICIPANTS
Community Bank (Bay Area)	5	3
National Bank	1	2
International Bank	2	2
Credit Union	1	0
Non-Profit Organization	1	2
National Foundation	0	1
State Agency	1	0
Total	**11**	**10**

Although the types of participating and nonparticipating organizations appear to be similar, the service territories of the participating organizations differ substantially from the service territories of the nonparticipating organizations. Among the participating lending institutions, only two, the nonprofit organization and the state agency, serve the entire state (58 counties). The largest service territory of the nine remaining participating lenders, including the national and international banks, was relatively small, with only two extending beyond the five Bay Area counties included in the Loan Fund program (Table 3.3). By contrast, only a single nonparticipating lender had a service territory exclusively within the program's geographic limits.

Table 3.3: Number of California Counties Served By Institution

NUMBER OF COUNTIES	PARTICIPANTS	NONPARTICIPANTS
One through Five Bay Area Counties	7	1
More than Five Bay Area Counties	2	5
All 58 California Counties	2	4
Total	**11**	**10**

Six contacts from nonparticipating lenders could not estimate the percent of their branch business customers with fewer than 150 employees. One respondent from a non-profit stated 100% of its customer base is small employers. Among the banks, one lender estimated 20% of the bank's business customers had fewer than 150 employees, whereas two lenders who specialize in small business gave responses of 90% (they did not know this figure for all commercial lending (Table 3.4).

Table 3.4: Portion of Business Customers with Fewer Than 150 Employees

PORTION OF BUSINESS CUSTOMERS	PARTICIPANTS	NONPARTICIPANTS
Twenty Percent	0	1
Sixty through Seventy-Five Percent	2	0
Ninety-five through One-Hundred Percent	15	3
Don't Know	1	6
Total	**18***	**10**

* Two responses from partial interviews are included.

The responses of the participating lender contacts indicate a substantially higher portion of their customers are those targeted by the Loan Fund. More specifically, 15 contacts from participating lenders reported 95% to 100% of their business customers have fewer than 150 employees.

The nonparticipant contacts had an easier time estimating the number of customers that fit the loan parameters than they did estimating the percentage of monthly customers with fewer than 150 employees that they have in the five Bay Area counties. One contact reported just under 10 qualifying customers per month, four lenders said they average 10 to 15 such customers, one lender estimated they serve 60 such customers, and two lenders could not provide a number but said "the vast majority" of their customers are small businesses (Table 3.5). One local bank and the national foundation typically do not lend to small businesses.

Table 3.5: Average Monthly Customers who Fit Loan Parameters

NUMBER OF QUALIFYING CUSTOMERS PER MONTH	PARTICIPANTS	NONPARTICIPANTS
One through Five	3	0
Six through Fifteen	4	5
More than Fifteen	6	1
Doesn't Work with Customers/Small Businesses	2	2
Don't Know	3	2
Total	**18***	**10**

* Two responses from partial interviews are included.

Participating banks were more likely to serve the target customers. One-third (6 of 18) of the participant contacts reported seeing more than 15 customers each month who met the Loan Fund's size and business location requirements. The range in responses was from "one-to-two," to "sixty-five," but over 50% reported seeing more than six such customers each month.

Regardless of the volume of qualifying customers, participating lending officers reported making few commercial loans to their customers in an average month. More than one-half (9 of 17) of participating contacts reported making an average of three or fewer commercial loans per month (Table 3.6). Excluding the two contacts who do not work directly with customers, the proportion of contacts who reported making three or fewer commercial loans per month is even higher (9 of 15).

Table 3.6: Average Monthly Commercial Loans

NUMBER OF LOANS PER MONTH	COUNT
Less than one	5
One to Three	4
Nine to Ten	2
Less than ten	1
Doesn't Work with Customers	2
Don't Know	3
Total	**17***

* This question was added after two interviews had been completed. Three responses from partial interviews are included.

Compared to reports by participating contacts of the number of customers who fit program criteria, reports of the number of customers to whom they actually mentioned the program are somewhat smaller. In addition to the two participating contacts who do not work with customers, three other contacts reported they did not mention the program to any customers (Table 3.7). Four contacts reported mentioning the program to less than one customer per month and four other contacts reported mentioning the program to from one to three customers per month.

Table 3.7: Average Monthly Customers to Whom Program Was Mentioned

NUMBER OF MENTIONS PER MONTH	COUNT
None	3
Less than One	4
One through Three	4
Forty or More	3
Doesn't Work with Customers	2
Don't Know	1
Total	**17***

* This question was added after two interviews had been completed. Three responses from partial interviews are included.

Of the three contacts who reported mentioning the program to more than five customers per month, all reported mentioning the program to 40 or more customers per month. These numbers are so much higher than those reported by the other contacts, that they may be branch-wide averages rather than averages for those three contacts themselves. One of the contacts who reported a high number of program mentions to customers also reported program information was "mailed to 1,000 customers."

Customers, both of the participant and the nonparticipant lenders, seek loan information in the early project planning stages, which these lenders prefer, and later, when the final plans are complete. Nonparticipant contacts reported small business owners are more inclined to explore loans early in the project, especially if they have an existing relationship and line-of-credit with a lender. They reported contractors and developers are more likely to explore loans after the plans have been completed and after specialized designers have already made decisions about energy efficiency. A nonparticipating contact also said the type of construction matters: "When I look at our customer base—those that already have operating businesses—most are not managing their infrastructure. They would not be thinking about energy efficiency. A more viable market for energy efficiency applications is new construction. For new construction, we work with customers at earlier stages in the development. For retrofits, customers already have their plans in hand and know their costs. There is less of an opportunity to have input."

Roughly one-third (6 of 16) of the participating contacts reported their loan customers first come to them for loan information at the early planning stages of their projects. Almost as many (5 of 16) reported the timing of their various customers' visits for loan information varies. Echoing one of the nonparticipants, one of these five added his customers come in "earlier for construction loans than for refinances." The remaining five participating contacts see their customers for the first time when the customers have their final project plans in hand, their equipment ordered, or even later.

LENDER LOAN POLICIES

Regardless of when borrowers approach the lenders for loan information, none of the nonparticipating lenders who were interviewed are required to consider energy efficiency in determining cash-flow or net project benefits, although three said this should change (Table 3.8).

Table 3.8: Lender Loan Policies (Multiple Responses Allowed)

POLICY	PARTICIPANTS	NONPARTICIPANTS
Consider Energy Efficiency for Loans	6	0
Set Quotas for Loans	9	4
Pay Commissions for Loans	6	0

Contrasting with this, 6 of 16 of the participating contacts reported energy efficiency is sometimes used as a factor to determine cash-flow changes or net benefits when a project is considered for a loan. Contacts at two organizations reported energy efficiency implications are part of their routine underwriting procedure. Two other contacts reported energy efficiency is considered "only for large loans," and for "industrial/manufacturing customers with heavy energy use." The two other contacts reported energy efficiency is considered only "rarely," or "very rarely," the latter contact adding, "Banks tend to look backwards, not forwards. They are more interested in what a customer has done than what he might do in the future."

Four of the nonparticipating lenders have quotas for different loan types and six do not. Those that do not have quotas said their institution focuses more broadly on overall financial goals and asset allocation. Nine of 16 participating contacts reported loan officers at their organizations are expected to meet quotas for loans.

None of the nonparticipating lenders reported getting loan commissions, although some reported other incentives to initiate loans. The end result is that the nonparticipants are not especially motivated by quota requirements or commissions (compensation) to explore new loan markets aggressively. This is particularly true for non-traditional "lenders" like non-profit organizations, which usually have narrowly defined funding uses and compensation schemes. These contacts said it is more important that the specific loan program fit well with their organization's overall strategy or mission (which can include risk reduction). The experience of the participating lenders is a bit different, 6 of the 16 participating contacts reported their institutions pay commissions for loans made. However, two of those who reported commissions qualified their statements by saying commission payments are earned "indirectly" or exist "only occasionally."

DECISION-MAKING

The person who had decided whether the organization participated in the program was often different than the contact we spoke with. Nonparticipating lender contacts said the chief credit officer, branch manager, board of directors, director of small business lending, bank CFO, and/or bank vice president could all potentially be involved in deciding whether or not the organization participates in a program like the Loan Fund. While there was no single common answer or consensus, one lender summarized by saying the "most senior people" ultimately get involved, while another offered: "You have to go all the way to the top. The most senior people must buy into the program. You must sell it to the executive. And you will probably get something like 'we have bigger fish to fry at this time.'" As one lender put it, "There is a general uphill battle to get any kind of innovative program approved in a bank."

Participating lenders most commonly reported that another corporate contact, typically in another location, had the ability to decide whether the organization will participate in programs like the Loan Fund. Four contacts reported having such authority themselves. Other decision-makers for such issues were reported to be branch managers, boards of directors, and an executive committee. Occasionally, contacts from the same institution—in one case from the

same branch—gave differing responses, indicating uncertainty among loan officers as to who has the authority to commit the organization.

PRIOR EXPERIENCE WITH SIMILAR PROGRAMS

The lending organizations, both participating and nonparticipating, have had limited experience with similar programs. Among the nonparticipants, only one had participated in an energy efficiency loan program. The program is sponsored by Alameda Power and Telecom[19] and, like this program, offers a 4% interest-rate reduction for commercial customers purchasing energy-efficient electric equipment and infrastructure improvements. The program is still in effect, but participation is very low. One other nonparticipant lender had participated in a loan program with an interest-rate, buy-down feature. That program was sponsored by the City of Alameda Department of Public Utilities and focused on loans for economic development and new business creation (not energy efficiency).

Because few nonparticipants had prior experience with buy-down programs, almost all of them had no general perceptions about these types of programs. The two lenders that reported prior experience, however, noted that these programs can create challenges for the participating banks:

- *"Banks like to participate in special activities like this, but it is not their core business and won't necessarily generate a lot of business compared to their core business."*
- *"I like the concept. The more challenging part is that these things put a little kink in the process flow, which makes things a little more complex. It's great for the customer, but more difficult for the bank."*

Similarly, nonparticipants had few perceptions about energy efficiency loan programs overall, although some noted that these are a "good idea." One lender offered that: "Anybody in the Bay Area would say it's great. It's attractive, but up-front they don't know what they will get out of it, and it is therefore not a huge priority [for the lending institution], especially for a smaller company."

Like the nonparticipants, only one participating contact reported having prior experience with a loan program addressing energy efficiency. He described it as a program through the California Energy Commission for commercial upgrades to install solar, cogeneration, and certain other systems. None of the participating contacts had prior experience with a loan program having an interest-rate, buy-down component.

19 Alameda Power & Telecom is a municipal utility serving approximately 32,000 customers in Alameda California. Contacts there report the program began in 2001 and continues to be offered, but very few customers have applied. They would consider applications from customers who are receiving a rebate but also want reduced interest financing for the remainder of the project cost.

When asked their perceptions of loan programs with an interest-rate, buy-down component, the participants' comments were generally positive, though vague. Typical responses included the adjectives "effective," "positive," "good," and "fine." One contact elaborated a bit, saying they are "probably okay, but sometimes the customer has a hard time understanding them." Another contact said buy downs "are a good incentive if introduced early in a project's process. If the savings are introduced later, it requires project changes that are costly."

The participant contacts reported perceptions of loan programs for energy efficiency projects that were also generally positive. Typical responses included phrases such as "pretty good," "not enough of them," and "we're supportive of such programs."

PERCEPTIONS OF LOAN FUND FEATURES

The program offered financial incentives directly to participating lenders in two ways. If a borrower received a subsidized loan through the program, the lending organization would receive a lump-sum payment equal to the present value of the difference in monthly repayment streams between the lender's regular interest rate and the program interest rate. If a borrower chose another energy efficiency program, the lending organization received a referral fee.

When asked about the importance of these payments to their organizations, a majority reported the payments were important (a "4" or "5" on a five-point scale, Table 3.9). Eleven of sixteen contacts reported the program's lump-sum payment was important to their institutions. About one-half (9 of 16) of the contacts reported the referral fees were important to their institutions. Thus it appears some sort of payment would be valuable to encourage lenders to participate in loan programs.

Table 3.9: Importance of Program Payments to Participants (n=16)

PAYMENT	UNIMPORTANT ("1" OR "2")		NEITHER "3"		IMPORTANT ("4" OR "5")		DON'T KNOW	
	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT
Lump-Sum Payment	1	6%	3	19%	11	69%	1	6%
Referral Fee Payment	4	25%	2	13%	9	56%	1	6%

Using the same five-point scale, both participating and nonparticipating contacts were asked to rate the importance of six features of the loan program. Lender training was rated by the largest portions of both groups as important (a "4" or "5" on a five-point scale, Table 3.10). Roughly equal portions of both groups rated lender training and a program hotline as important. However, for the other features—which included a lump-sum payment, a buy-down component, bank referral fees, and loan officer referral fees—larger portions of participating contacts than of nonparticipating contacts rated the features as important. All of these features were deemed important (a "4" or "5") by two-thirds or more of the participating contacts, while one-half or

fewer of the nonparticipating contacts rated these features as important. Loan officer referral fees were particularly unimportant (a “1” or “2”) to the nonparticipants. It is likely that the different reward structures in the participating and nonparticipating organizations (discussed regarding quotas, above) led to these differences.

Table 3.10: Importance of Loan Fund Features

PROGRAM FEATURE	UNIMPORTANT (“1” OR “2”)		NEITHER “3”		IMPORTANT (“4” OR “5”)	
	PARTICIPANTS (N=16)	NON-PARTICIPANTS (N=10)	PARTICIPANTS (N=16)	NON-PARTICIPANTS (N=10)	PARTICIPANTS (N=16)	NON-PARTICIPANTS (N=10)
Lender Training	0	1	1	1	15	8
Program Hotline	2	1	3	2	11	7
Lump-Sum Payment	0	1	1	2	15	5*
Buy-Down Component	0	2	2	0	14	4*
Bank Referral Fee	3	2	0	0	13	4*
Loan Officer Referral Fee	3	4	1	1	12	2*

* Responses do not equal “n” because remaining contacts said “Don’t know.”

Nonparticipating lenders occasionally elaborated upon or qualified their ratings. Regarding a program hotline, nonparticipating lenders said it is always a good idea to give loan prospects as much information as possible. Nonparticipants also noted they are usually too busy to attend trainings.

Regarding the value of a lump-sum payment (versus a stream of payments), the nonparticipants noted potential complications:

- *“What if there is an early pre-pay, this complicates things. It would be easier if the payment were a stream, and probably in the ‘rear stream’. The reality is that both ways have their own set of issues. It would be great to shift the incentive payments to the customer instead of having it go through the lender.”*
- *“A lump sum is more efficient administratively. But what happens when there is a default? The lump sum does create an administrative difficulty.”*

Among nonparticipants, loan officer and bank referral fees received the lowest scores for three main reasons:

1. The lenders did not expect loan volumes to be high enough to generate significant referral fees.

2. It is unlikely a referral fee would be high enough to compensate for the lender's additional marketing (time) cost.
3. Many lenders are not entitled to referral fees or commissions (particularly among the non-profit organizations).

EFFECT OF INTEREST-RATE DISCOUNT AND LOAN CAP

All nonparticipating contacts and all but one of the participating contacts reported they believed the 400-basis-point, interest-rate reduction on the energy efficiency portion of a loan is adequate to get the attention of targeted borrowers.

When asked about the program's loan cap of $200,000, there were splits among both groups of lenders. Five of the nonparticipating lenders thought this cap was too low. Three of these lenders suggested raising the cap, but advocated different amounts: $500,000, $750,000, and $1 million. One lender noted, "We focus on the middle market ($20-$50 million in yearly sales), still less than 150 employees, usually around 20 employees—$200,000 is a small amount; most of our customers would cover this amount themselves." Two lenders thought $200,000 a sufficient amount and three could not assess the appropriateness of the cap.

The participating contacts were also divided on whether the program cap of $200,000 on the portion of the loan for qualified energy-efficient equipment was reasonable. Nine thought the $200,000 cap was reasonable and seven thought it needed to be higher. However, six of these nine contacts qualified their responses by noting a higher cap would be more helpful. One contact noted the cap was reasonable for equipment loans, but, "For construction loans it's too low. You almost had to make two loans: one for equipment, and one for construction. It was complicated." These responses suggest that a higher cap would likely be more attractive. Additionally, the latter response suggests that with the loan applying only to the portion of a project for energy-efficient equipment, the complexity of the loan process increased. Among the seven participating contacts desiring a higher cap, five thought a $500,000 cap would be adequate.

INTEREST IN WORKING ON A SIMILAR PROGRAM

The highest number of participating lenders expressed interest (a rating of "4" or "5" on a five-point scale) in working on a similar program with a local utility company, compared to working with the State of California or a nationally-recognized energy efficiency services company. Roughly one-half (7 of 16) or more of the participants expressed interest in working with each of these three entities (Table 3.11).

Contrasting with these responses, none of the nonparticipating contacts indicated an interest in working with a local utility on a similar program. These lenders were fairly neutral regarding working with other parties. However, several noted partnering with an organization having a more broadly recognized name and service territory would give more credence to the program.

Thus, the State of California was ranked higher by the nonparticipants than were a local utility or a nationally-recognized (but unnamed) energy efficiency services company.

Table 3.11: Interest in Working on a Similar Program

Partnering or Sponsoring Organization	Not Interested ("1" or "2")		Neither "3"		Interested ("4" or "5")	
	Participants (n=16)	Non-Participants (n=10)	Participants (n=16)	Non-Participants (n=10)	Participants (n=16)	Non-Participants (n=10)
Local Utility	1	4	1	4	13*	0*
State of California	1	2	5	2	9*	4*
National Energy Efficiency Services Company	3	2	4	4	7*	1*

* Responses do not equal "n" because remaining contacts said "Don't know."

REASONS LENDERS DID NOT PARTICIPATE IN PROGRAM

When asked to describe the primary reasons their organizations chose not to participate in the Loan Fund program, lenders described few structural or systemic problems with the program. Instead, their reasons tended to revolve around conflicts over competing priorities and existing business practices that either failed to match the target market of the Loan Fund or created little time to learn and market a new program. The most common problem was that the program was not perceived to fit with the lender's core business or mission, which was stated in various ways:

- *"We are a relationship bank; we do not do stand-alone or do transactional loans."*
- *"We were not going to market energy efficiency because it falls outside of our mission. We might have participated if we thought there was enough demand from our clients, if more than 20% would have participated."*
- *"There needs to be some compelling benefit to a lender to get them to participate. The bank had just gone through a change and did not want to delay the changes by accommodating a different kind of loan."*
- *"It was a mismatch between the kinds of projects we finance and what the program targeted."*

Secondarily, two lenders said they had other priorities:

- *"Another loan program was our immediate focus."*

- *"Our bank was very focused on activities associated with a turn-around. We were keeping a narrow focus on what our priorities were. We did a cost-benefit analysis of what we put in and get back, and concluded that the program was a 'not at this time program,' not necessarily forever, but at that moment. The program is a valuable program, and I am hopeful that we can get another chance to participate."*

Two lenders had specific concerns about early re-payments:

- *"One problem was that the buy-down had to be returned if the borrower paid out the loan early. We were also concerned about the work to get things going since it was a new program."*
- *"The program did not seem that easy to participate in, particularly the part about having to track the buy-down. If a borrower decided to pay down the loan early, they would have to calculate how much was not used and return the rebate. The need to track this was a concern."*

Lastly, two lenders offered the following comments about the loan cap and program marketing:

- *"To my group in commercial lending, the program is a little more tedious and does not meet our customer needs. Also, the $200,000 cap is too small. The SBA lending group may be more interested in this kind of program. Our focus is more on working capital."*
- *"It is hard enough for lenders to sell their own product; it is even harder to sell other people's products. It is hard to explain to the bank why we would want to do this. It is just one more thing that you would have to know and explain and it would complicate things. In the competitive nature of commercial real estate lending you must focus on your core work."*

PARTICIPANTS' PROGRAM EXPERIENCE

Most (61%) of the contacts from participating lending institutions became aware of the Loan Fund before early 2005 (Table 3.12). All who could remember when they first heard of the program reported hearing of it at least one year previously, that is, by June 2005.

Table 3.12: When First Heard of Program

WHEN FIRST HEARD	COUNT	PERCENT (N=18*)
June through July 2004	5	28%
End of 2004 through Early 2005	6	33%
First Half of 2005	3	17%
Don't Know	2	11%

* Two responses from partial interviews are included.

Twelve participants (75%) reported being informed of the details of the program at a training session held at their branch (Table 3.13). Contacts reported they had received the information they needed in order to describe the terms of the program effectively.

Table 3.13: How Informed of Program Details

HOW INFORMED	COUNT	PERCENT (N=16)
Training	12	75%
Telephone Conversation	2	13%
Conversation / Information in Bank	1	7%
Email	1	7%

Marketing the Program to Borrowers

Two participating contacts reported having no direct contact with customers and three others reported they had no qualifying customers and therefore had not mentioned the Loan Fund to any of their customers. However, all 14 of the remaining contacts reported providing brochures to any customer who appeared to be a program candidate (Table 3.14). Most of the contacts also verbally described the program to their candidate customers and asked those customers whether their projects included installing energy-using equipment. One contact who reported verbally describing the program added he only did this for customers who asked about it.

Table 3.14: Marketing Activities with Borrowers (Multiple Responses Allowed)

ACTIVITY	COUNT	PERCENT (N=19*)
Provided Program Brochures	14	74%
Verbally Described Program Opportunity	13	68%
Asked if Installing Energy Using Equipment	11	58%
Other (Mailed Program Information to Customers)	2	11%
Had No Contact with Customers	2	11%

* Includes responses from three partial interviews.

While no question specifically asked about the participating contacts' perceptions of program marketing, nine of them mentioned perceiving inadequate or non-existent marketing. According to one contact, "Turning bankers into the marketing arm of this program needs to be augmented with PG&E and other marketing. You need 11 touches to be successful—the bank is one, PG&E

is two, where are the other nine?" Another flatly stated, "This program has no marketing. No one knows about it."

The comments of one lender cast further doubt on the challenge of relying on lending officers to market the program: "Program success depends upon account officers who are aware of what their customers are doing and who then probe to find out more about the customers' plans. This is an ideal account officer. But with larger banks, turnover is high, and with small banks there aren't enough staff to know all of the customers so well, or to market to specific customers."

Four contacts suggested that a better marketing strategy might include having other parties—such as utilities, equipment manufacturers, equipment vendors, and architects—promote the program.

Reasons Customers Did Not Apply for Program Incentives

The issue of program marketing emerged again when participating contacts were asked why their customers chose not to apply for the Loan Fund interest rate subsidy. The comments of five of those who could explain their customers' failure to apply focused on lack of awareness. They expressed the problem in a variety of ways, from saying simply their customers were "not aware of the program" or the program was "not articulated clearly or advertised enough," to the "borrowers were not aware of the benefits of energy savings" or "the borrowers received the information at too late a stage in their projects to be able to take advantage of it cost-effectively."

Six contacts also mentioned the complexity of the application and loan process. One of these contacts reported one of his customers had mentioned to him that the program process was too complex. That contact added, "A lot of people thought the amount of money available wasn't worth the effort required." Another contact echoed this sentiment, saying it was "too much trouble, too much documentation." Another one of these six contacts reported the Loan Fund application was more complex than his bank's loan applications.[20]

Another reason given for customers not applying for the loans was they did not meet lending criteria for either the bank or the program. Three contacts mentioned their customers' failure to meet the program criteria related to business location or type of project. Two contacts mentioned the failure of their customers to meet their banks' lending criteria. One said, "A lot of the loan prospects weren't bankable. The businesses weren't very successful." The other reported some customers to whom the program was mentioned were turned down by the bank because they were not creditworthy.

[20] KEMA simplified the application process for lenders and borrowers in March and April of 2005, after many lenders had been trained.

Contacts noted other issues that created barriers for borrowers as well. These included: a program implementation period that was too short (two mentions), the $200,000 cap was too low (two mentions), no one followed up with the borrowers (one mention), and an observation that there has not been a market for equipment loans for the past two years (one mention).

LENDER-SUGGESTED PROGRAM IMPROVEMENTS

As described earlier, throughout the interviews, both participants and nonparticipants commented about the need for more program marketing. When asked for specific suggestions to make the Loan Fund program more successful, responses included: requests for more program advertising; engaging utilities, equipment manufacturers, equipment vendors, and architects in marketing the program; and plans for more direct marketing to consumers.

Eight participant contacts suggested more training and program support for participating lenders, including requests for "more training," "refresher training," and training on the program's "rules and regulations to get a borrower qualified," including the utility's requirements. Program support suggestions included requests for more interaction by the program with the banks (two mentions), "more follow through with the bank providing leads and information," more follow-up with customers, and a template that shows comparative financial results with and without the energy-efficient equipment.[21]

Five participant contacts mentioned the complexity of the program's lending process. Three of them specifically suggested simplifying the application process. Another contact suggested the process needs to be "as simple as an auto loan or overdraft protection." A nonparticipant also alluded to the program's complexity saying, "Direct rebates are easier to administer than loans; switch to these."

Three participant contacts suggested improved customer screening. One of these suggested adding a criterion that the customer be the owner of the business. Another contact suggested the program adopt his bank's lending criteria requiring a borrower to have been in business three years and to have been profitable for two years. The third contact suggested the creation of a customer questionnaire to generate a score that would indicate a probability of loan qualification.

Other program improvement suggestions were to increase the cap on the dollar amount of the loan for energy-efficient equipment and to have a longer program implementation time. One of the contacts offering the latter suggestion said, "There was no interest from customers, maybe

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[21] These suggestions emerged when lenders were asked for specific suggestions. It should be noted that KEMA's contact with individual lending officers and bank branches was limited as many banks required that communication be disseminated through a primary contact. The quality of the information and the enthusiasm engendered by the contact was out of KEMA's control. KEMA also did create a template/tool capable of showing comparative financial results—thus, this comment is more a reflection on what is needed by lenders, rather than a comment on a program deficit.

because there wasn't enough time." Finally, a nonparticipant said, "The most important thing is to give the bank an incentive to administer and sell the program; you must pay the bank for the work."

SUMMARY

In many banks, KEMA was required to communicate with lending officers through a primary contact who would disseminate the information internally. KEMA's contact with individual lending officers was therefore limited to the training. Thus, the comments from lenders about the program are possibly a reflection on their internal communication processes, rather than KEMA's. The requirement to work through a primary contact is understandable from the perspective of the lending institution; however, it creates a communication barrier for programs working with lending institutions, which likely compounded the challenge of implementing the Loan Fund.

Both participating and nonparticipating lenders reported almost no experience with other energy efficiency or interest-rate-buy-down loan programs. Most of the participant contacts reported high to very high percentages of their customers meet the Loan Fund program's criteria for business size and location. However, most participating lenders reported working with fewer than 15 commercial customers per month and, on average, closing three or fewer loans per month with such customers. These numbers indicate a low volume of total loans from which to recruit potential participants. Most of the participant contacts mentioned the Loan Fund to three or fewer customers per month.

Reasons the participants gave to explain why their customers did not apply for the program's loans included program complexity, inadequate marketing, the program's short implementation period, a loan cap that was too low, and the non-creditworthiness of their customers. Regarding marketing shortcomings, not only were customers reported to be simply unaware of the program, they were unaware of the need to apply to the program at the earliest stage of their project's development and unaware of the benefits of energy-efficient improvements. Contacts reported their customers were already too far along with their projects to apply to the program when they first came to the bank for loan information.

Among nonparticipants, the most commonly cited obstacles to program participation relate to the three-party nature of the program (program, lender, borrower) and administrative complexity. In particular, lenders were wary of early loan re-payments and borrower defaults, which would create significant accounting "hassles" when a third party (the program) is involved. In addition, the $200,000 loan cap was thought to be insufficient to attract many borrowers (and this small loan amount may have exacerbated fears of early re-payments).

Another significant obstacle that emerged in conversations with nonparticipating lenders is that they feel they have little time to market loan programs. They must prioritize their participation based on the size of the market opportunity. Although the lenders thought the energy efficiency

loan program was a good idea, they also thought that it would result in small loan volumes, and therefore, they were not willing to put their time and resources into implementing it.

There were also obstacles that cannot be attributed to the loan program itself, and which probably cannot be addressed. These obstacles are:

- Energy efficiency is not directly related to the lender's core business or mission.
- The program conflicts with other immediate priorities. Two lenders said this, and the program recruitment notes also show other lenders who could not be reached for this survey gave similar responses when the program was initially rolled out. This appears to be a systemic problem in working with busy lending officers and high volume banks.
- Within nonparticipant lending organizations, it is difficult to obtain required approvals.

Consistent with the reasons given by participants for their customers not applying to the program, their suggestions for changes to improve the program included improved marketing, more lender training and program support, pre-screening of customers before they reach the bank, simplification of the lending process, an increased loan cap, and longer program duration. The nonparticipants echoed the participants' suggestions for improved program marketing, a higher loan cap, and program simplification. A nonparticipant also suggested the need for compensating banks for their efforts to sell and administer the program.

4 BORROWER EXPERIENCES

This chapter presents the results of conversations with the three potential applicants that contacted the Loan Fund, as well as staff descriptions of applicant and audit processes.

PARTICIPATION PROCESS

We asked staff how borrowers were expected to interact with the program. To participate in the Loan Fund, a borrower would:

1. Make initial contact with a participating bank;
2. Describe their project to a lending officer; who would then
3. Refer borrowers undertaking construction, remodel, renovation, or equipment replacement loans to KEMA for a potentially reduced interest rate.

Throughout implementation of the Loan Fund, a hotline existed that rang directly at the desk of KEMA staff. Several staff members rotated through the hotline position during the life of the program, but the hotline was continually staffed. It was anticipated that borrowers would be given the hotline number via the program information provided by participating lenders. This contact information was also included on all the marketing materials and in any newsletter articles.

Initially, the program involved more steps for both lender and borrower prior to contact with KEMA. The process described in the PIP assumes that the lending officer will introduce the customer to the Loan Fund and offer two paths for the borrower:

1. Include pre-approved measures in the project and proceed without considering other programs; or
2. Work with KEMA to identify the full range of options through an audit and assess the relative advantage of the Loan Fund versus other incentive programs.

The first step is simpler and requires only an application and an affidavit stating that no other PGC incentives will be used for the project. The second option represents a referral approach in which KEMA would work with the borrower to determine the best approach for a given project through an audit—these borrowers could decide to pursue incentives from other programs or to pursue the interest reduction.

By March 2005—approximately six months after the project start date and with no referrals or applicants yet—KEMA staff had received some feedback from participating lenders and potential borrowers that the application forms were cumbersome. KEMA responded by simplifying the process for both lenders and borrowers. Rather than having lenders provide

borrowers with an application form, borrowers would simply be referred directly to KEMA, where the appropriate information would be gathered and an application filled out on behalf of the borrower. To facilitate this, a one-page program description was developed in April 2005 and distributed to participating lending organizations in May.

Borrower privacy concerns prevented lenders from providing KEMA with project or contact information about referred customers, so there was no way for program staff to track the level of potentially-qualified projects. Program contacts received several calls from lenders needing clarification about whether or not a specific aspect of a project would qualify for the program, but these calls did not include the details of a specific project or borrower.

Program staff frequently talked with participating organizations, trying to assess and reduce the referral burden and offering additional training, but projects did not materialize and only three potential borrowers contacted the program. KEMA had planned to offer a high level of project support and audit services to program participants, but found no demand for the resources reserved to provide these services.

Three participants contacted KEMA about the program and progressed as far as an audit. Each began with phone contact during which KEMA asked about the details of the proposed project. This was followed by an audit and analysis. None of the projects filled out an application for an interest rate reduction, nor did any complete their projects during the program's period of operation.

KEMA had established target turnaround timelines for audits of three days for standard projects and a week for new construction projects. According to program staff, KEMA worked to assure that audits would be as rapid as possible, but found that projects involved other factors that take time—for example, working around an architect's schedule or finding a translator. Throughout the process, KEMA contacts reported trying to convey that staff were available at any time and for any reason to help lenders and borrowers navigate the decision-making process.

APPLICANTS

We contacted each of the three potential applicants to ask them about their experiences with the program and the status of their projects. All three recalled their contact with the program and with KEMA, and were willing to discuss their projects with the research team[22]. All three applicants had projects that involved remodeling and renovation; one specifically involved equipment replacement. The first applicant heard about the program early in 2005 through interaction with a local business development group. The second and third applicants heard about the program opportunity through a participating bank.

22 One contact was a Spanish-speaker and was interviewed by a translator.

PROJECT DETAILS

Each of the applicants described the details of their projects and the factors that kept them from pursuing a loan through the program. Several of the issues mentioned by applicants remain unresolved; in fact, none of the projects was completed or even begun as of July 15, 2006.

The first applicant sought to install a unique window-covering product that, theoretically, would have eliminated the need for air conditioning in a downtown Oakland building. Including this measure and other measures (operable windows, photovoltaic panels) in the plans added a level of uncertainty to the project that slowed it down. The contact for this project reports that he still anticipates implementing this project within the next twelve months.

The second applicant sought to remodel a building in San Francisco, adding a restaurant and building an additional third floor on a two-story building. According to him, the project has been on hold for more than a year because of the plans to add a third story. City approval and permitting have proven complicated—his application was first rejected and then approved by the City of San Francisco. This contact reports that his project has recently begun to move forward again, following the permitting approval.

The third project involved a more typical office retrofit and upgrade, in which the owner sought assistance in improving the energy use of the building. While his project was the most straightforward, the contact approached the program late in the implementation cycle. A KEMA engineer was not able to get to his building until January, after the program had ended. This contact had not implemented any energy efficiency improvements in his building by August 2006, but still plans to do so and will likely approach PG&E for information about incentives and financing within the year.

PROGRAM EXPERIENCE

Of the three applicants, the second and third had few interactions with the program and were generally pleased with the information they had received. The second applicant reported no problems at all. The third noted that he contacted the program in late October, but that an auditor was not able to get to his building until January, at which point it was too late to apply.

The first applicant heard about the program early in 2005, and not through a participating lender, so he had to identify a participating lender and describe the details of the project to an energy auditor. When he learned that he could not get credit for avoiding the need for air conditioning, he became frustrated. Retrospectively, he believes he would have been better served by a program that focused on green building technologies.

All three applicants sought the benefits of reduced interest financing for their projects and continue to value this. One applicant specifically mentioned that marketing through banks is an intriguing idea, but that a program needs to also market to the suppliers so that anyone touching energy-related products will know about it.

SUMMARY

The conversations with applicants demonstrate that there is no single way in which applicants might enter a loan program. The diverse permitting, timing, and design issues also suggest that any program seeking to work in this market will need to have an implementation period of at least three to five years, long enough to allow the program to work with applicants as they face the unique challenges of their projects. Finally, such a program will need to consider all the ways an applicant might learn of the program and develop processes to ensure they all have a positive experience with the process

5 PROGRAM COMPARISON

This section of the report provides a summary of the results from a review of program documents and interviews with managers of other commercial energy efficiency loan programs around the country. The purpose of this review is to summarize basic elements that appear to influence program success.

Telephone interviews were conducted with managers of loan programs offered by the six organizations shown in Table 5.1: Alliant Energy, Connecticut Light & Power (CL&P), Eugene Water & Electric Board (EWEB), MidAmerican Energy (MidAmerican), the New York State Energy Research and Development Authority (NYSERDA), and the State Assistance Fund For Enterprise, Business and Industrial Development Corporation (SAFE-BIDCO). One of the programs is offered by a public agency that also participated as a lending organization in the Loan Fund—SAFE-BIDCO.

Table 5.1: Comparison Energy Efficiency Loan Programs

PROGRAM SPONSOR	TYPE OF ORGANIZATION	APPROXIMATE NUMBER OF LOANS FUNDED ANNUALLY	YEARS OF PROGRAM OPERATION	LOCATION	ESTIMATED POPULATION[23] OF SERVICE TERRITORY
Alliant Energy	Investor-Owned Utility	20	5	Wisconsin	5.5 million
Connecticut Light & Power	Investor-Owned Utility	800	6	90% of Connecticut	3.5 million
Eugene Water & Electric Board	Municipal Utility	24	11	Eugene, Oregon	145,000
MidAmerican Energy	Investor-Owned Utility	8	10	Iowa	3 million
NYSERDA	Public Agency	70*	6	New York	19 million
SAFE-BIDCO	Public Organization	12	18	California	36 million

* Includes commercial, industrial, institutional, and multifamily projects.

[23] Estimated 2005 population. US Census. http://quickfacts.census.gov/qfd/

OVERVIEW

We identified six energy efficiency loan programs operating in other jurisdictions and targeting commercial borrowers. These programs vary in their structure and fundamental program goals. A key difference between the programs is the way in which they interact with other energy efficiency rebate programs. The comparison programs can be broadly divided into those that work as stand-alone programs and those designed to or allowed to support other utility programs.

The programs at MidAmerican and Alliant Energy are both stand-alone programs. For these programs, customers are given an option of receiving a rebate or a low-interest loan, but not both.

The other four programs, those sponsored by the Eugene Water & Electric Board, Connecticut Light & Power, NYSERDA, and SAFE-BIDCO, all allow customers to take advantage of the low-interest loans in tandem with other incentives that may be available.

The MidAmerican and Alliant Energy program managers both described the overarching approach of their loan programs as fairly hands-off. At these utilities, the loan programs are primarily thought of as an additional service offered to commercial customers. MidAmerican and Alliant Energy both offer other energy efficiency programs, including rebate programs for businesses. Managers at both utilities stated that most small business customers choose rebates over loans. According to these contacts, it does not matter to their organization if customers choose the rebate or the loan, as long as customers are installing energy-efficient equipment. As the program manager for the MidAmerican program put it, “The program is not here to do financing volume, it is here to promote energy efficiency—it doesn't matter how customers get to this point.”

At NYSERDA, EWEB, and CP&L, and to a lesser extent SAFE-BIDCO, the programs are designed to support a broader DSM effort. Specifically, EWEB, CP&L, and NYSERDA offer other energy efficiency programs to small business customers, including rebate programs, allowing loan programs to be used in conjunction with the other programs as further encouragement to customers to install energy-efficient equipment.

Created by the California Legislature to act as a catalyst for economic development, SAFE-BIDCO does not offer other energy efficiency programs for small businesses, nor was their loan program designed to support other energy efficiency programs. However, SAFE-BIDCO does allow borrowers to participate in programs available from other organizations, including utilities, and according to the program manager, this is the case for most of their borrowers.

Most of the programs reviewed were specified to target the small and mid-sized business retrofit market, as opposed to new construction. MidAmerican does not actively market its program and it is therefore not targeted at any specific audience, while EWEB and NYSERDA’s loan programs target all sectors—residential, industrial and the commercial market, including retrofit, substantial renovations, and new construction.

LOAN CHARACTERISTICS

Terms

The loan programs we reviewed use a variety of approaches to setting their interest rate, which range from substantially subsidized or bought-down rates to rates determined by the market.

- The programs sponsored by MidAmerican, Alliant Energy, CP&L, and NYSERDA all include a buy-down component to lower the interest rate. The programs sponsored by SAFE-BIDCO and EWEB feature low-interest loans, but there is technically no buy-down component, since the programs provide the funds themselves, as opposed to using a separate bank to provide the funds.
- CP&L has the lowest interest rate (0%) of all the programs reviewed.
- SAFE-BIDCO, MidAmerican, and EWEB offer an interest rate that is fixed relative to prime.
- The interest rate for the Alliant Energy program varies, depending on the loan terms. For loans of less then one year, Alliant offers a 0% interest rate loan. For loans over one year, the rate increases up to a maximum of 6.9% for a five-year loan.
- EWEB reviews their interest rate approximately every six months and makes changes as necessary to reflect market conditions. According the program manager at EWEB, they try to keep the rate at around 3% to 4% below prime. EWEB will increase the rate for borrowers that want a longer loan term.
- Lenders ultimately set the terms for NYSERDA's program. Borrowers can approach a variety of lenders, each of whom can determine creditworthiness and establish suitable terms. Once a borrower is approved for standard financing, NYSERDA provides a 4% buy-down of the interest rate.[24] For this reason, the actual interest rate of the loan varies, depending on the specific loan terms decided between the borrower and the bank.

A summary of the loan characteristics for each program is shown in Table 5.2.

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[24] Interest rate reductions of up to 6.5% may be available for facilities located in the Liberty Zone, established in Lower Manhattan following the terrorist attack on September 11, 2001, to support reconstruction and encourage new development.

Table 5.2: Loan Characteristics of Programs Reviewed

SPONSORING ORGANIZATION	MINIMUM / MAXIMUM LOAN AMOUNT	LOAN TERMS
Alliant Energy	$1,500 / $25,000	Sliding scale, depending on length of loan: 0% for 12 months, up to 6.9% for 60 months
Connecticut Light & Power	$1,000 / $100,000	Zero percent for up to 6 years
Eugene Water & Electric Board	None / none	Around 3%-4% below prime; rates are adjusted up for larger loans or longer terms
MidAmerican	$1,000 / none	Prime -1%
NYSERDA	None / $1,500,000	Reduction of 4% or 6.5% from base rate (depending on location) offered by the lending institution
SAFE-BIDCO	None / $350,000	Rate floats with prime

In general, contacts report that having a relatively low interest rate was important, but they also see the interest rate as just one of many factors that determine whether or not smaller businesses are interested in the loans. Other import factors include the ease of the application process, the qualification requirements, and interaction with other energy efficiency programs.

Interaction with Available Rebate Programs

Four of the six programs allow customers to receive both financial incentives for energy efficiency projects and a subsidized loan (Table 5.3). The loan programs sponsored by CP&L, EWEB, NYSERDA, and SAFE-BIDCO allow borrowers to receive available rebates and a low-interest energy efficiency loan. On the other hand, both MidAmerican and Alliant Energy force customers to choose between a rebate or a subsidized loan. The project managers of programs offering both rebates and loans report that this is an important aspect of their programs.

Table 5.3: Program Interaction with Rebate Programs

SPONSORING ORGANIZATION	BORROWERS PERMITTED TO RECEIVE ENERGY EFFICIENCY REBATES
Alliant Energy	No
Connecticut Light & Power	Yes
Eugene Water & Electric Board	Yes
MidAmerican	No
NYSERDA	Yes
SAFE-BIDCO	Yes

Features of the programs offering both rebates and loan subsidies include:

- CP&L offers the lowest interest rate of any of the programs reviewed and allows customers to take advantage of rebates offered by the utility. These factors are likely important reasons behind the large number of customers who participate in this program.
- At EWEB, the loan program was envisioned as a way to provide “gap funding” for energy efficiency projects. In other words, EWEB would provide a financial incentive for a certain energy-efficient measure and the customer could use the loan to pay for the remainder of the project.
- According to the program manager at SAFE-BIDCO, at least 95% of the businesses that take advantage of their loan program also receive financial incentives from their local utilities.
- NYSERDA’s loan program is viewed as a way to facilitate energy efficiency projects that come through other NYSERDA programs. NYSERDA contacts note that since 2003, 32% of their commercial/multifamily borrowers also participated in other NYSERDA energy efficiency programs.[25] However, in a recently-completed survey of commercial borrowers, 59% claimed to have participated in at least one other program[26]. The difference may be attributable to data tracking differences or an underlying difference between the pre-2003 and post-2003 borrowers.

How incentives are handled depends on the characteristics of specific projects; NYSERDA either approves the interest rate buy-down for the entire cost of the project or for the net cost of the project after the any financial incentives are applied. In general, if a project comes through an open-enrollment program, the loan covers the gross cost of the project. If a project comes from a competitive solicitation program, the loan generally only covers the net cost after the rebate is applied. This approach was developed to account for the added administrative time required to process loans that come through the competitive-solicitation programs.

EWEB program contacts emphasized the importance of allowing borrowers to participate in incentive programs, noting that EWEB tried to offer a 0% interest loan with no added rebate. According to the program manager, this program change “fell flat on its face,” and the utility went back to offering a low-interest loan with the incentive.

The timing and availability of loan funds may also be important. According to the program manager from NYSERDA, the low-interest loans are particularly attractive to customers because they provide the upfront cash needed to do the work, while the rebates they receive from other

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[25] Information provided by the program coordinator for the NYSERDA loan program.

[26] *Market Characterization, Market Assessment, and Causality Evaluation, Loan Fund Program*. Prepared for the New York State Energy Research and Development Authority by Summit Blue Consulting, LLC. May 2006.

energy efficiency programs typically are not distributed until after the work is completed. SAFE-BIDCO pays the loans after the projects are completed and inspected. However, the program manager from SAFE-BIDCO stated that this is one of the program aspects that she would like to change, since many small businesses need the cash upfront to do the work.

Eligible Measures

These programs vary in the flexibility they have regarding their requirements for eligible improvements under their loan programs. Loan programs run by organizations also providing rebates tend to include improvements that qualify for a rebate in their loan program. In some cases, the loan program operates with a list of prescribed improvements or measures. In the case of custom projects, an energy assessment is often required.

- MidAmerican and Alliant Energy both have a list of prescribed energy efficiency improvements that are eligible for funding through their loan programs.
- CP&L and EWEB both have a list of prescribed improvements and also allow for custom-project applications. Custom projects must be assessed to determine their energy savings.
- SAFE-BIDCO will generally consider a project eligible if it can be shown to reduce energy consumption by at least 15% of the baseline.
- NYSERDA funds the broadest range of projects, including renewable energy, energy efficiency, and green building projects. They have a prescribed list for some measures and also allow for custom projects.

According to the program coordinator from NYSERDA, projects passed to the loan program from other NYSERDA programs tend to be easier to process, since their eligibility has already been established by the other programs. None of the project managers stated that the requirements for eligible measures were a significant barrier for their program.

PROGRAM CHARACTERISTICS

Marketing

The loan programs rely on a variety of communication channels to inform businesses of the loan opportunity. Contractors often play an important role in making businesses aware of the loan programs, as does overarching promotion of a suite of programs that drive customers to a website or a phone number to find out details. For organizations that also offer financial incentives, it is common for customers to approach the organization with the intent of participating in the inventive program and then, subsequently, to learn about the loan opportunity.

Ways in which various programs are marketed include:

- MidAmerican relies on trade allies—including contractors and energy consultants that work with key accounts—to make customers aware of the loan opportunity. The loan opportunity is also described in the applications for energy efficiency financial rebates.
- At Alliant Energy, most of their customers are informed about the loan program when they call to inquire about other rebate programs. The bank that administers the loans can also promote the program, but staff do not believe this is a major source of customer awareness.
- At CP&L, contractors bring in around 95% of their program participants. The commercial energy efficiency programs sponsored by CP&L are primarily contractor-driven. Contractors conduct audits for commercial customers and recommend appropriate energy efficient improvements, as well as inform customers of the rebate and loan opportunities available through CP&L.
- Most participants at EWEB learn about the loan opportunity after inquiring about other financial incentives offered by the utility. Staff estimate that approximately 20% of their participants learn about the loan program from contractors, particularly for larger projects.
- The program manager for SAFE-BIDCO estimated that approximately half of their participants learn about their loan program from contractors. The remainder learns about it from either the SAFE-BIDCO or the California Energy Commission websites.
- A recent survey of commercial borrowers involved in NYSERDA's program found that of the 61 commercial businesses interviewed: 30% first learned about the program from contractors or equipment vendors; 25% learned about the program from other **New York Energy $mart**^SM programs, NYSERDA's website, or NYSERDA marketing; and 21% learned of the program from lending institutions.[27]

Mechanism of Loan Origination and Financing

Among the programs, funds were typically managed one of two ways: via a single bank or by the sponsoring organization itself. NYSERDA is an exception to this generality—instead, relying on a network of lenders in banks across New York that have agreed to participate in the program.

Financing mechanisms of the various programs include:

- MidAmerican and Alliant Energy each use a single bank to administer the loan funds.

[27] *Loan Fund Program Market Characterization, Market Assessment, and Causality Evaluation*. Summit Blue Consulting, LLC. May 6, 2006. An additional 25% cited "other" sources.

- The funds for the CP&L loan program come from two separate sources. For small business loans, the funds are provided from CP&L itself. A single bank provides the funds for small industrial loans.
- EWEB and SAFE-BIDCO each provide the loan funds themselves.
- NYSERDA uses multiple participating lenders to administer the loan funds.

NYSERDA values the network of participating lenders, but staff acknowledges differences among organizations in their ability and willingness to promote the energy efficiency loan opportunity. Some lending organizations are more knowledgeable about the loans and more effective at promoting the program than other organizations. This is true even among different branches of the same bank. Of the 79 participating lending organizations that provide commercial loans, the top 3 banks account for 36% of the loans funded, and the top 10 banks account for 61% of the loans funded.[28] To keep the lenders engaged in the program, NYSERDA found it helpful to hire an outside contractor to provide continuing education and outreach to participating lenders and to also help recruit new lenders.

The program manager from MidAmerican noted that relying on a single bank to manage the loan process creates barriers for some borrowers. According to him, one of the biggest barriers to their loan program is the fact that businesses often have an existing relationship with a bank and are reluctant to use a different bank to borrow money. He stated that reducing the interest rate further, even as low as 2%, would not significantly increase the number of commercial borrowers because of this dynamic.

The method of administering loans also affects the application process. For programs that use a bank to administer the loan funds, the bank typically applies its standard process to determine if the borrower is qualified for the loan. Although the process differs slightly from program to program, in general, the bank's primary role is to administer the loans; besides that, they have little, if any other responsibility to the program. Lending organizations that participate in NYSERDA's program are an exception to this. NYSERDA's loan program was created, in part, as a market transformation program aimed at changing the ways that lenders view energy efficiency projects. To accomplish this, the program has provided ongoing education to participating lenders.

Other features and lessons learned in loan administration among programs that rely on banks include:

- Regional or local lenders were the first organizations to participate in NYSERDA's loan program. Attracting larger statewide or nationwide banks has been more difficult.

28 *Loan Fund Program Market Characterization, Market Assessment, and Causality Evaluation*. Summit Blue Consulting, LLC. May 6, 2006.

According the program manager at NYSERDA, this is because it is typically more difficult for larger banks to integrate the loan program into their structure.

- Customers and contractors of the MidAmerican program usually have limited contact with the bank. MidAmerican accepts loan applications directly from their customers. Once they deem the improvement eligible, they send the application to the bank, which then approves the loan. After the work is completed and MidAmerican receives the invoices, MidAmerican informs the bank and the loan is paid. The customer will sometimes work directly with the bank when proposing larger, more complicated projects.
- When Alliant Energy receives a loan application, they first determine if the project is eligible for the program. Alliant then notifies the bank, which then works directly with the customer to administer the loan.
- The small industrial segment of CP&L's program is similar to the MidAmerican program, in that the customer has limited contact with the bank. For the CP&L program, contractors are trained to use specialized computer software that allows them to calculate the potential energy savings of a project, along with the potential loan payments. The contractor then submits the loan application, which is pre-approved by CP&L and sent to the bank for final approval. Once the bank approves the loan, CP&L notifies the contractor and work is completed.

Programs that administer the loans themselves also handle the application and loan approval process. This allows these programs to have greater control over who is eligible to receive the loans. The program managers for these programs tended to believe that their approval process is less demanding than that of most banks and therefore more attractive to potential participants.

Features of the programs that administer the loans themselves include:

- CP&L and EWEB use utility bill payment as a primary indicator for the loan approval. In general, if a customer regularly pays their utility bills on time they will be approved for a loan.
- At EWEB, loans under $7,000 are almost always approved if the customer pays their utility bills on time. According to the program manager, "The easy credit check for loans under $7,000 is one of the things that work best about the [EWEB] program." For loans under $20,000, EWEB typically only looks at the customer's bill payment history and credit report. For higher loan amounts, EWEB will also review financial statements.
- At SAFE-BIDCO, funding decisions are based on the project itself, not on the financial statements of the business. Program contacts viewed this as an important feature of their program because it increases the ease of borrowing. According to the program manager, "The attraction of our program is the ease of borrowing. We don't have to deal with a lot of people and vendors are familiar with our process. A big difference between us and other lenders is that when we approve a loan, we are not as concerned with other aspects

of the company's financial status. Our funding is based primarily on the project's energy saving potential."

The EWEB contact described modifying the application process over the years. Previously, an energy analyst would determine what improvements would be made and also handle parts of the loan application along with other loan processing staff at EWEB. They now have an analyst serve as the single point of contact for all loan applications. The analyst reviews the application and passes it on to another staff person, who takes care of the rest of the loan process. Having one person whose primary job involves understanding and processing loans has improved the process and ease of providing loans.

Best Practices

In all cases, program contacts viewed the loan program as another valuable service that their organizations provide to their customers, regardless of the ultimate loan volume. The following best practices emerge from this comparison:

- An attractive interest rate is important, but by itself does not appear to be a significant driver of participation. Other program aspects that drive participation include: the ease of the application process, eligibility requirements, and relationships to other energy efficiency programs.
- If possible, internal management of the loan process maximizes program control over administration and approval of loans.
- Energy efficiency loans are most attractive to businesses when they can be used in conjunction with other energy efficiency programs. The loans often act as a valuable counterpart to other energy efficiency programs to further encourage businesses to make energy efficiency improvements.
- Contractor involvement can provide an important source of participant referrals.
- Understandable and predictable application and approval processes provide customers and contractors increased confidence that they will receive the funding they need for their project.
- Whenever possible, loan funds should be distributed to borrowers at the beginning of the project to provide the funding necessary to do the work. This is especially true for smaller businesses that do not have the capital to pay for the work up front.

SUMMARY

Loan programs provide organizations with another tool to encourage energy efficiency and to reinforce the overall efforts of other DSM programs. Among the programs reviewed here, a majority allowed applicants to also apply for rebates. Typically, these programs have the highest participation volumes.

In the cases of programs that competed directly with rebate programs by not allowing participation in both, the vast majority of small business customers choose the rebates over the loans.[29] The popularity of rebate programs may detract from the time spent on loan programs, however contacts at the sponsoring organizations report that their organizations are not concerned with which option customers choose, as long as they are encouraged to install energy-efficient equipment.

In cases where borrowers can use both incentives and loan subsidies, the two efforts are viewed as working together to remove barriers to energy efficiency investment. As noted by the program manager at CP&L, "With zero percent interest loans and large rebates, it's a no-brainer for the customer." In other cases, the rebate programs help review and pre-qualify projects that are referred to the loan program, something that makes the documentation and loan review easier for loan program staff. Contacts at NYSERDA noted that the other energy efficiency programs have helped drive participation in the loan program: "As the other energy efficiency programs have ramped up, so has our loan program."

The mechanism of loan origination and financing is another important factor in how loan programs are administered and the flexibility in project approval and credit requirements. Programs that provide their own funding for loans generally had more flexibility in their credit requirements and administrative approaches than the programs that use a bank to administer the loans. This flexibility can improve relationships with customers and referring contractors, as both are likely to gain added confidence that they will be able to secure funding for a given project. Program managers from these programs cited the simplicity and ease of their processes, and the perception of availability as key components of success.

As described by a contact at SAFE-BIDCO: "[These programs] give borrowers a sense of commitment and this takes pressure off the vendor because they know they will get paid. One of the things that customers like best about our program is the ease of borrowing."

29 According to the program manager from MidAmerican, in 2005 eight businesses elected the loan option, while 64,000 businesses elected to receive financial rebates.

6 CONCLUSIONS AND RECOMMENDATIONS

The California Energy Efficiency Loan Fund operated in five counties in the San Francisco Bay area from October 1, 2004, through December 16, 2005. Activities associated with the implementation and marketing of the program began in May 2004, prior to final negotiations with the CPUC and the development of the final PIP. The program trained 75 lenders in the five counties that surround the Bay Area; however, the program was unsuccessful in meeting loan volume or referral goals, as no loans were processed and no referral payments were made.

This process evaluation sought to understand the reasons for non-attainment of program goals and to determine if market conditions, program conditions, or some other factors could explain this lack of success.

FINDINGS

Our findings can be summarized into four reasons for poor performance:

1. Invalid market theory on the role of lenders to market energy efficiency loans
2. Insufficient market research
3. Program management missteps
4. Delays that reduced the program implementation period

Invalid Program Theory on the Role of Lenders to Market Energy Efficiency Loans

The program theory is grounded in the premise that lenders can be a conduit for identification of energy efficiency projects and the marketing of energy efficiency loans. It is clear from our conversations with lenders and our review of other loan programs that lending officers are an unlikely conduit for identification of energy efficiency projects and the marketing of energy efficiency loans. Thus, the program theory, though appearing to be valid due to the program success in New York, was not valid.

1. **Lenders are too busy with their own work.** It was thought the Loan Fund would create a new delivery channel for energy efficiency. However, lenders mentioned that they saw a need for additional marketing to make borrowers aware of the loan opportunity before they came to the bank. Lenders also described competing priorities for their time that made it difficult to remember to promote the program to potentially qualified borrowers.
2. **Other programs typically do not use lenders as the conduit, but rely on the energy efficiency programs and contractors to market the loan to customers and the lenders to facilitate the dispersal of the loan**. The similarly-structured **New York**

Energy $mart^SM Loan Fund reports that just 21% of the commercial borrowers participating in the program were referred to the program by their lender, most however were referred through their participation in an **New York Energy $mart**^SM program.[30] These research results were not known to KEMA in 2003.

Insufficient Market Research

It appears that the program lacked sufficient market research to estimate volume, and consequently operated under unrealistic program goals.

1. **The volume of projects anticipated was likely unrealistic given the population of the five Bay Area counties included** (approximately 5.5 million). This population is approximately 30% of the population of New York—where the first full year of program implementation yielded just six commercial projects. For comparison, the New York State Energy Research and Development Authority's (NYSERDA) loan program closed only six commercial loans in its first year and only 29 in the second year. A realistic extrapolation for the five Bay Area counties would be two loans in the first twelve months of operations and nine in the second twelve months.
2. **Customers in many jurisdictions have historically chosen rebates over loans when they cannot select both; programs with high loan volumes typically allow customers to use both rebates and loans**. The original program plan would have allowed loans and rebates to be used simultaneously on the same *project*, but not on the same *measure*. The final program PIP accepted a lesser role for the loan fund in program financing, thus further reducing the potential market.
3. **It takes time to build a program**. It was unrealistic to assume that two years, let alone less than two years, would be sufficient to initiate a program, train lenders, and garner interest on the part of borrowers. The three projects that were reviewed by KEMA are just in the process of moving forward after one year.

Program Management Missteps

While KEMA clearly fulfilled its requirements to market the program and train lenders, they did not fulfill all program management responsibilities.

1. **KEMA did not alert PG&E staff to concerns about goals until the program implementation period had ended**. It is clear that the program missed key progress indicators early in the implementation period when lender recruitment was slower than

[30] *Market Characterization, Market Assessment, and Causality Evaluation,* ***New York Energy $mart***^SM *Loan Fund Program*. Prepared for New York State Energy Research and Development Authority. Summit Blue Consulting, LLC. Pg. 3. May 2006.

expected. Yet KEMA did not notify PG&E of this at the time, nor later as it became apparent that few potential borrowers were coming to the program.

2. **Resources allocated to pay for banking consultants were not used**, though they had been consulted during the program design phase and assisted KEMA by identifying and prioritizing contacts from lists of potential lenders. KEMA would have benefited from working with consultants during the program implementation period to inform them about the market and help them adjust the marketing and outreach strategies in light of changes to original program components.
3. **KEMA did not undertake the ALJ required evaluation efforts at the time indicated in their work plan**. The program could have benefited from a timely launch of process evaluation activities focused on identifying the issues behind the lack of projects.

Delays that Reduced the Program Implementation Period

The initial PIP proposed a two-year implementation period for the program. The PIP negotiations process reduced the program implementation period to 15 months, and the contract was signed three months later. This left just over one year to implement the two-year program concept.

CONCLUSIONS AND RECOMMENDATIONS

The main issues that the process evaluation finds to explain the non-attainment of program goals concerns the program design to use lenders as a conduit to project identification and the unrealistic expectations of loan volume. A Loan Fund could work in California, but the lessons learned from this program should be incorporated into such a program design.

Conclusion 1: Following program plans is important for an ALJ approved program. KEMA did not fully follow the program implementation plan—no evaluation was conducted during the program period and market consultants were not hired to consult on the program. Further, KEMA did not keep PG&E or the CPUC informed about problems they were having in achieving program targets. These factors result in a program as implemented that is not consistent with the program plan, which, had it been followed, might have identified solutions to the implementation challenges KEMA faced.

1. **Programs implementation plans should be followed.** Approved program plans are essentially written orders from the Administrative Law Judge (ALJ); changes to these documents require ALJ assent.
2. **Program implementers should seek input from the utility and CPUC when programs are underachieving goals.** The program as it was redesigned in the PIP process was not the same program KEMA proposed. As they implemented the program and found that it was not working as expected, they should have informed PG&E and the

CPUC that they were encountering problems. The required monthly reporting process is designed to permit the implementer to keep all parties informed.

Conclusion 2: Marketing and credibility of the marketing organization are key to loan program volume. If implementers seek a high volume of loans, it will be necessary to market the opportunity to borrowers through the general efficiency marketing efforts and through vendors, contractors, architects, and engineers who are likely to be involved early in remodeling or construction projects.

1. **Recommendation: Consider implementation of similar loan funds through an institutional partner like the State of California or the utilities**, both of whom can allow the program to exist in the background of a larger effort to promote energy efficiency, capturing the few customers each year for which the loan subsidy is critical.
2. **Recommendation: Establish a longer timeframe for program implementation and expect low participation in the first one to three years** as word of the opportunity filters through the targeted lenders and borrowers. A longer timeframe also allows for the time it takes for commercial projects to become fully formed, permitted, and implemented.

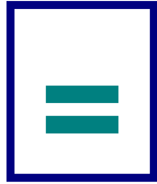
Conclusion 3: The barriers to borrower investment in energy efficiency persist. Loan programs offer a valuable financial service to consumers and businesses and do facilitate investment in energy efficiency for some. When considering a future loan program, program designers and policy makers should consider the following aspects:

1. **Recommendation: Keep the program simple for lenders and borrowers** by using a one-page application, an automatic referral process, or simple screening questions. Simplification could include on-line tools that allow borrowers, contractors, and lenders to enter project details and assess the benefits of participation, specifically, and energy efficiency generally.
2. **Recommendation: KEMA was correct in assuming multiple lenders are needed to be effective**. Future loan programs should seek to enlist multiple banks as partners to offer the program statewide.
3. **Recommendation: Establish a loan cap high enough to attract large projects that will garner publicity**. One of the benefits to loan programs is that other costs associated with the energy efficiency project can be incorporated. Consider the average cost of commercial remodeling and renovation projects when setting the loan cap.
4. **Recommendation: Consider ways for customers to use both a loan and a rebate program**. The CPUC is concerned about allowing customers to receive benefits from more than one PGC-funded energy efficiency program with the same project. Yet, loan funds typically are tied to rebate programs. Solutions such as a revolving loan fund

approach, as is used by EWEB and SAFE-BIDCO, can ensure that the funds are always available for future borrowers, thus reducing the double-dipping problem.

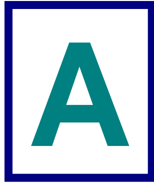
Conclusion 4: Delays caused by PIP and contract negotiations can affect the adequacy of the implementation period.

1. **Recommendation: The CPUC should acknowledge when contract and PIP negotiations have affected the proposed implementation period and seek a remedy that will ensure the implementers have a chance to fully demonstrate the program concept.** Acknowledgement and solutions could include such remedies as a change in the contract term to accommodate a full implementation period, a reduction in expectations for program results, or re-categorizing a program as a pilot, with potential for renewal to accomplish the full implementation period**.**



APPENDICES

APPENDIX A: SURVEY INSTRUMENTS



SURVEY INSTRUMENTS

CALIFORNIA ENERGY EFFICIENCY LOAN FUND PROCESS EVALUATION: KEMA AND PG&E STAFF

Date: ________________________________

Name of Staff: ________________________________

Organization: ________________________________

Phone Number: ________________________

1. When did you begin working on this program?

2. What is your specific role in the program, and how long did you have that role?

3. What portion of your time was dedicated to the Loan Fund?

Program Design [for staff directly involved in program design]

4. Can you describe how was the original program design was developed?

    a. What information was used to support the demand or need for the program?

5. Why was the target market selected?

    a. How was the program designed to match the needs of the target market?

6. How many KEMA staff were assigned to the program?

7. How did you determine the staffing level that would be required? [Research question: Was the staffing level adequate for the program?]

8. What were the specific skills, experience or staff expertise of KEMA staff expected to support this program?

9. What were the primary barriers the program sought to overcome? [PIP lists: Information or search costs, hassle or transaction costs, performance uncertainty, and access to external financing – should we list each and describe how they planned to address them?]

   a. What program levers were expected to overcome those barriers?

   b. How were these levers structured into the program?

10. How were the program goals and objectives determined?

11. What changed during the development of the final PIP? [What specific changes were made in program design or implementation following review or request by PG&E?]

12. How did the actual implementation timeline differ from the timeline anticipated or envisioned in the original proposal?

   a. What led to changes in the timeline?

Program Administration

13. How did KEMA respond to the lack of loan applicants?

14. How did KEMA interact with PG&E during program implementation (difference in roles)?

   a. What requirements were there for approving activities, for invoicing and for tracking project progress?

   b. How did these work?

15. Were there contracting, management or payment issues that influenced program start-up and delivery efforts?

16. When was the contract signed?

Marketing and Outreach

17. What market conditions were anticipated to support the program?

18. Was there a difference between the assumed market conditions and the actual market conditions?

19. Were there any conditions expected to work against the program?

20. Were there any existing practices among lenders that affected the way the loan program requirements were received? Any unanticipated or surprising practices?

21. How were financial institutions targeted?

    a. Can you describe the specific outreach strategies used?

    b. Which were the most effective?

22. What were the primary concerns raised by potential participating lenders?

    a. How did KEMA overcome these concerns? [Research question: What actions were taken to overcome these concerns?]

    b. How were these concerns or barriers incorporated into the program's design?

23. What lessons were learned about the lending market and/or the dynamics of construction loans?

Delivery and Implementation (for Implementation Staff)

24. Can you describe the process of signing up lenders: what was involved, what types of agreements were required?

    a. Did any new issues emerge for lenders at the agreement stage?

    b. Did lenders indicate the level of demand they expected, or any issues that might slow progress?

25. How were marketing responsibilities explained to lenders?

26. Can you describe the expected activities and program flow for participants (once identified)?

    a. How would they be contacted and communicated with?

    b. How would audits be conducted and how would other program opportunities be described?

27. What activities did KEMA conduct with applicants? [Interviews? Audits? Q&A?]

28. How did KEMA determine the most appropriate program for an applicant?

29. In your opinion, what are the reasons the applicants did not ultimately proceed with loans?

30. Can you think of anything that might have changed the applicant's mind?

Evaluation Efforts

31. Why was the evaluation not implemented in 2004-2005?

32. Did KEMA seek any approvals or issue decisions from the administrators or the CPUC in the decision to delay the evaluation efforts until after the program was terminated?

Overall Lessons Learned

33. What worked best about the program?

34. In hindsight, what changes could have made the program more successful?

35. Is there a role for this kind of program in the future? If so, under what conditions (market conditions and operational conditions)?

CALIFORNIA ENERGY EFFICIENCY LOAN FUND PROCESS EVALUATION: PARTICIPATING LENDERS

Date: ___________________________________

Name of Lender: ____

Name of Organization: ____

Phone Number: ___________________________

My name is ____, and I am conducting an evaluation of the California Energy Efficiency Loan Fund. I understand you were trained to participate in the program. We're doing an evaluation and would like to get your feedback. Do you have about 10-15 minutes to answer some questions?

All responses will be kept confidential.

Prior experience

1. Prior to this program, have you participated in any loan programs that address energy efficiency? Yes / No

    a. If so, which ones and when?

2. Prior to this program, have you participated in any programs that buy-down interest rates for qualifying borrowers? Yes / No

    a. If so, which?

3. What is your perception of loan programs with an interest-rate buy-down component?

    a. And what about loan programs for energy efficient projects?

Program Participation

4. When did you first hear of the California Energy Efficiency Loan Fund Program?

5. Who at your organization is ultimately responsible for determining whether or not your organization participates in programs like this?

- ☐ Me
- ☐ Branch Manager
- ☐ Corporate Contact
- ☐ Attorney
- ☐ Other: Title? ______________________________
- ☐ Don't Know

6. How were you informed of the program details?

- ☐ Training
- ☐ Phone conversation
- ☐ Conversation/Information at Bank
- ☐ From program collateral
- ☐ Other______________________________

I want to ask you about some of the features of the California Energy Efficiency Loan fund.

As you may recall, the program offered a lump sum payment to financial institutions equal to the present value of the difference in monthly repayment streams between the bank's regular interest rates and program rates.

7. On a scale of 1-5, where 1 is not at all valuable and 5 is very valuable, how valuable is this upfront payment to your institution?

1 2 3 4 5

The program also offered the lender a referral fee if a borrower referred to the program participated in a PG&E efficiency program.

8. On a scale of 1-5, where 1 is not at all interested and 5 is very interested, how interested is your organization in receiving payments for referring one of your borrowers to a PG&E efficiency program?

   1 2 3 4 5

The subsidized portion of the loan had a $200,000 cap for qualified energy efficient equipment and could be used to finance construction, renovation, or leasehold improvements.

9. Is the $200,000 cap a reasonable size for loans on energy using equipment for these potential borrowers?

   a. What if the cap were $500k?

   b. $750k?

   c. $1 million?

As you may recall, the program was available to business customers of PG&E that have fewer than 150 employees and are located in five Bay Area counties (San Francisco, Alameda, San Mateo, Contra Costa, and Santa Clara).

10. Can you estimate how many customers you have in an average month who fit these parameters (size & location)?

11. During your conversations with customers who may have been candidates for the Loan Fund, did you:

   a. ☐ Ask borrowers if their projects included installing energy using equipment

   b. ☐ Provide program brochures

   c. ☐ Verbally describe the program opportunity

   d. ☐ Wait to see if customers asked about other options

   e. ☐ Some other response

12. Can you estimate how many customers you have mentioned the California Energy Efficiency Loan Fund to in an average month?

13. Do you know the number of your customers who eventually took out a loan?

14. Do you believe a 4% interest rate reduction on the energy saving portion of a project is adequate to get the attention of targeted borrowers?

    Yes No

    a. If not, why not?

15. Were you provided with the information you needed in order to describe the terms of the program effectively? Yes / No

    a. If no, what was difficult about describing the terms to your customers?

16. What do you think is the main reason customers you talked with chose not to apply for the California Energy Efficiency Loan Fund incentives?

17. I'm going to read several program features that might be a part of programs like this, and I'd like you to rate the importance of each one to you or your organization on a 1-5 scale where one is not at all important and five is very important. How important is:

    b. A program hotline?

    1 2 3 4 5

    c. Program training for lenders?

    1 2 3 4 5

    d. Referral fees paid to the loan officer?

    1 2 3 4 5

    e. Referral fees paid to the bank?

    1 2 3 4 5

f. A buy-down component?

1 2 3 4 5

g. What about a lump sum payment to the bank to cover the lost revenue from the buy down?

1 2 3 4 5

18. Using that same 1 to 5 scale with 1 being not at all interested and 5 being very interested how interested would you be in working with the following organizations on a similar program to this one:

h. Local utility company, like PG&E

1 2 3 4 5

i. State of California

1 2 3 4 5

j. Nationally recognized energy efficiency services company

1 2 3 4 5

19. At what stage in a project do potentially qualified borrowers typically approach you for loan information?

a. In the early stages of project development?

b. With final plans in hand as they are preparing for construction/remodel,

c. Other: ____

20. When a project is considered for a loan, is energy efficiency ever used as a factor to determine cash flow changes or net benefits?

Yes No

If yes:

a. In what circumstances?

b. Have you ever done this?

We're also trying to understand how a program like this might fit in to the compensation or recognition system at your bank.

21. Are you expected to meet quotas for different types of loans?

22. Do you earn a commission for loans?

[If 18 or 19 = yes]

23. How, if at all, would a program like this fit into this structure?

Firmographics

A few final questions about your company.

24. What portion of business customers at your branch have fewer than 150 employees?

25. Are you a ….[keep going until interrupted with answer]

a. Credit union,

b. Local bank,

c. Statewide bank,

d. National bank

e. International bank

f. Some other type of organization (record) ______________________________________

26. In how many California counties does your organization operate? [If they don't know, ask for a proxy, like number of branches or regions of the state]

Final Thoughts

27. What specific changes do you think would make the program more successful? [If they've mentioned several things already, may want to lead in with an "other than the things you've already mentioned…]

Thank you so much for your time and your feedback, you have been very helpful.

CALIFORNIA ENERGY EFFICIENCY LOAN FUND PROCESS EVALUATION: APPLICANTS

Date: ______________________________________

Name of Applicant: ____

Name of Organization: ____

Phone Number: ______________________________

My name is ____, and I work for a research firm conducting a process evaluation of the California Energy Efficiency Loan Fund. I understand you considered applying for a loan through the program and I'd like to ask you a few questions in order that we might better understand what worked and didn't work about this program. My questions should take about 10 minutes.

Is this a good time? If not, I'd be happy to schedule a better time and call you back when it's more convenient.

1. Do you recall interacting with the California Energy Efficiency Loan Fund Program, sponsored by KEMA? [If no, describe program further. If they still don't recall, terminate. We only have three to call so prompt thoroughly before terminating.]

   Yes No

2. Did your project involve:

   ☐ New construction

   ☐ Equipment replacement

   ☐ Remodeling

   ☐ Tenant improvements

3. How did you first hear about the loan program opportunity?

4. Did your lender encourage you to apply to the program?

   Yes No

   a. If so, what program benefits did your lender describe to you?

5. Did you have an audit through the program?

   Yes No

6. Why did you ultimately decide not to apply for a loan from the program?

7. Did you implement your project?

   Yes No

   a. If yes =, did you end up obtaining a loan for your project?

      i. If yes = from where?

   b. If no implementation = why not?

8. On a scale of one-to-five, where one is not important and five is very important, how important was the energy efficiency of the equipment you selected?

   1 2 3 4 5

9. Did you install energy efficient equipment?

   Yes No

   a. If so, at the same level you planned to install? (The same number of items, or at the same level of energy efficiency?)

10. Did you receive any utility rebates for your project?

Those are all my questions, thank you for your time.

CALIFORNIA ENERGY EFFICIENCY LOAN FUND PROCESS EVALUATION: NONPARTICIPATING LENDERS

Date: ___________________________________

Name of Lender: ____

Name of Organization: ____

Phone Number: ___________________________

My name is ____, and I am conducting an evaluation of the California Energy Efficiency Loan Fund. We understand your organization was contacted by the program but did not ultimately participate. I'd like to ask you a few questions about your perceptions of programs like this, as well as record any feedback you may have about the program specifics. Do you have about 10 minutes to answer some questions?[Schedule if needed]

All responses will be kept confidential.

Prior experience

1. Have you participated in any loan programs that address energy efficiency?

   Yes No

   a. If so, which ones and when?

2. Have you participated in any programs that buy-down interest rates for qualifying borrowers?

   Yes No

   a. If so, which?

3. What are your perceptions of buy down programs overall?

   a. And what about energy efficiency programs? [Do they have any existing perceptions about energy efficiency programs generally?]

Program Participation

4. When did you first hear of the California Energy Efficiency Loan Fund Program opportunity?

5. Who at your organization is ultimately responsible for determining whether or not your organization participates in programs like this?

- ☐ Me
- ☐ Branch Manager
- ☐ Corporate Contact
- ☐ Attorney
- ☐ Other: Title? ______________________________
- ☐ Don't Know

I want to ask you about some of the features of the California Energy Efficiency Loan fund.

As you may recall, the program offered a lump sum payment to financial institutions equal to the present value of the difference in monthly repayment streams between the bank's regular interest rates and program rates.

6. On a scale of 1-5, where 1 is not at all valuable and 5 is very valuable, how valuable is this upfront payment to your institution?

1 2 3 4 5

The program also offered the lender a referral fee if a borrower referred to the program participated in a PG&E efficiency program.

7. On a scale of 1-5, where 1 is not at all interested and 5 is very interested, how interested is your organization in receiving payments for referring one of your borrowers to a PG&E efficiency program?

1 2 3 4 5

As you may recall, the program was available to business customers of PG&E that have fewer than 150 employees and are located in five Bay Area counties (San Francisco, Alameda, San Mateo, Contra Costa, and Santa Clara).

8. In an average month, can you estimate how many borrowers you might have who would fit these parameters?

The subsidized portion of the loan had a $200,000 cap for qualified energy efficient equipment and could be used to finance construction, renovation, or leasehold improvements.

9. Is the $200,000 cap a reasonable size for loans on energy using equipment for these potential borrowers?

   a. What if the cap were $500k?

   b. $750k?

   c. $1 million?

10. What do you think is the primary reason that your organization chose not to participate?

I have a few questions about things that might make a program like this more attractive to you or your organization.

11. Do you believe a 4% interest rate reduction on the energy saving portion of a project is adequate to get the attention of targeted borrowers? Yes / No

   a. If not, why not?

12. I'm going to read several program features that might be a part of programs like this, and I'd like you to rate the importance of each one to you or your organization on a 1-5 scale where one is not at all important and five is very important. How important is

   a. A program hotline?

      1 2 3 4 5

b. Program training for lenders?

1 2 3 4 5

c. Referral fees paid to the loan officer?

1 2 3 4 5

d. Referral fees paid to the bank?

1 2 3 4 5

e. A buy-down component?

1 2 3 4 5

f. What about a lump sum payment to the bank to cover the lost revenue from the buy down?

1 2 3 4 5

13. Using a 1 to 5 scale with 1 being not at all interested and 5 being very interested how interested would you be in working with the following organizations on a similar program to this one:

a. Local utility company, like PG&E

1 2 3 4 5

b. State of California

1 2 3 4 5

c. Nationally recognized energy efficiency services company

1 2 3 4 5

14. At what stage in a project do potentially qualified borrowers typically approach you for loan information?

a. In the early stages of project development?

b. With final plans in hand as they are preparing for construction/remodel,

c. Some other stage? ____

15. When a project is considered for a loan, is energy efficiency ever used as a factor to determine cash flow changes or net benefits?

    Yes No

    If yes:

    a. In what circumstances?

    b. Have you ever done this?

We're also trying to understand how a program like this might fit in to the compensation or recognition system at your bank.

16. Are you expected to meet quotas for different types of loans?

17. Do you earn a commission for loans?

[If 16 or 17 = yes]

18. How, if at all, would a program like this fit into this structure?

Firmographics (for participants and nonparticipants)

Just a few final questions for you about your organization to help us analyze the responses we've received.

19. What portion of business customers at your branch have fewer than 150 employees?

20. Are you a ….[keep going until interrupted with answer]

    a. Credit union…

    b. Local bank….

    c. Statewide bank,

    d. National bank

    e. International bank

    f. Some other type of organization (record)

21. In how many California counties does your organization operate? [If they don't know, ask for a proxy, like number of branches or regions of the state.]

22. Is there anything that would make this program more attractive to you as a lender?

23. Is there anything that would make this program more attractive to your borrowers?

Those are all my questions - thank you so much for your time and your feedback, you have been very helpful.

CALIFORNIA ENERGY EFFICIENCY LOAN FUND PROCESS EVALUATION: PROGRAM COMPARISON

Date: ___________________________________

Name: ____

Title/Organization: ____

Phone Number: ___________________________

Hi, my name is ____ and I'm conducting research as part of a process evaluation for a California energy efficiency loan program. As part of this evaluation we are comparing features of this program with those of similar programs elsewhere in the country. We identified your program ______ as likely to offer important lessons learned and insight for program designers in California. Would you have 20-30 minutes to discuss some of the major features of your program? [Schedule.]

One thing that could help speed things up and provide me with additional information before we talk is to review any recent evaluations or annual reports – do you have an evaluation or report on this program you could send me?

Background

1. Can you describe the overarching approach for the ________ loan program? [For example, where does the funding come from, how does the program interact with local incentive programs, what specific sectors are targeted, and what specific barriers are addressed? What are the program goals(s)? i.e. resource acquisition, market transformation, equity, support other energy efficient programs, customers service… Answer as many of these as possible from evaluation and marketing information received prior to phone call.]

2. Over what geographic area (or service territories) is the program implemented? [Again, attempt to answer prior to phone call.]

3. For how many years has ______ (organization) run this program? [Again, attempt to answer prior to phone call]

4. Can you estimate the number of loans funded annually? And, has this number varied, or remained steady over the years of implementation? Also the total dollar volume of loans, number of participating contractors (if applicable), and number of participating financial institutions (if applicable)

5. Has the loan volume and/or total dollar amount of loans per year changed since the program began? [Probe for details: Has it steadily grown, been stable, gone up or down? What causes these changes?]

6. Please describe the terms of the loans made through this program:

   a. Maximum/minimum amount ______________________________

   b. Minimum/maximum length ______________________________

   c. Interest rate ______________________________

   d. Interest rate buy-down/subsidy ______________________________

   e. Secured or unsecured ______________________________

7. How have the loan terms changed over time?

Program Characteristics

8. How does the program interact with rebate programs available in the same area? [Specifically try and understand if the firm can get a rebate with full value of the loan, or if the loan is reduced if they get a rebate]

9. [If the program is NOT run by a utility:] What is the relationship of the program to the local utility?

10. What are your requirements for the technologies or measures that can be funded through the loan program? [Percent above code, or above or equal to ENERGY STAR® or such.]

11. Does the loan cover just the efficiency measures, or the measures plus changes required to install measures, or can be for the project as long as efficiency measures are included.

12. Who is responsible for making borrowers aware of the program?

   a. Your organization (the utility or public benefits group)

b. Retailers

c. Wholesalers/distributors

d. Financial institutions

e. Contractors

f. Some other group (specify) ____

13. Are the loan documents processed by the utility, the program implementation contractor or by a private lending organization?

14. What is the role (if any) of bank loan officers?

15. What (if any) is the role of installation contractors or equipment vendors?

16. What works best about your program?

17. If you could change anything, what would you change about your program?

18. Are there any other key lessons learned about implementing a program like this that you think would be valuable for other implementers to know?