Pacific Gas and Electric Company

On-Bill Financing

Customer and Contractor Handbook



PG&E's On-Bill Financing (OBF) is funded by California utility customers and administered by Pacific Gas and Electric Company (PG&E) under the direction of the California Public Utilities Commission (CPUC). OBF provides qualified, nonresidential PG&E customers with a means to finance energy- efficiency retrofit projects.

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Customer Eligibility

Customer Account Eligibility

OBF is available to nonresidential PG&E customers who meet the following conditions throughout the duration of the retrofit project:

1. The PG&E customer must be a business customer or a federal, state, county or local government agency (see definition of Government Agency Customers below). Business customers and Government Agency Customers are collectively referred to as "Customer."
2. The Customer currently receives service from PG&E at the location of the retrofit project.
3. The Customer has maintained an active PG&E account for the previous 24 months andhad service at the premises to be retrofitted for at least 12 months.
4. The Customer must be in good credit standing from when the Customer's program application is approved through the funding of the loan. A Customer's credit standing will be determined according to a Payment History Screening, which may be based upon the existence of any 24-hour disconnection notices and payment plans in the last 12 months.

If the Customer does not pass the payment screening, an appeal may be submitted to the OBF team through a PG&E Account Representative.

Direct Access/Energy Service Provider and Community Choice Aggregation Accounts

Direct Access (DA) gives Customers the option to purchase their electric commodity from a DA/ESP (Energy Service Provider) instead of from PG&E. Similarly, Community ChoiceAggregation (CCA) allows customers in certain territories to purchase electricity throughtheir local CCA instead of from PG&E, however, the electricity is still delivered by PG&E. DAand CCA customers who install qualifying energy efficiency measures are eligible for OBF if they receive a monthly bill from PG&E that includes PG&E charges.

Government Agency Customers

For OBF, a Government Agency Customer is defined as a taxpayer-funded agency of federal,state, county, or local government that uses tax revenue to pay its PG&E energy bills. Such Customers may include but are not limited to, public schools, state of California colleges and universities, public libraries, and government offices.

Net-Metered Accounts

Customers with Net Energy Metering Accounts may participate in OBF if they receive a monthly bill from PG&E. These Customers should contact their PG&E Account Representative to discuss how OBF may impact their bill. Energy savings incorporatedin the OBF Loan terms will be calculated based on net usage rather than gross usage.


Project and Measure Eligibility

Eligible Equipment

On-Bill Financing

On-Bill Financing is available for high-quality energy efficiency retrofits. Projects canqualify for OBF following the procedures described in this document in Appendix A. On-Bill Financing has the following requirements for eligibility:

- Proposed upgrades must save energy.
- Equipment to be replaced must be operational at the time of replacement.
- Lighting controls cannot exceed 20 percent of the total project cost.
- Project savings must project to be observable through a normalized meter analysis.
- Screw-in LED light bulbs are no longer eligible, with the exception of exterior pole light fixtures. Note: LED lighting fixtures must meet Customized Retrofit program requirements for streetlights, agricultural lighting, and other projects requiring an OBF plus Custom savings claim.

Additional Energy Management Equipment

Customers may use 50% of the OBF loan funds they receive to fund additional energy management equipment, and any behind-the-meter ‘make ready’ costs (e.g. panel upgrades).

- Battery Storage Equipment currently eligible for incentive in the Self Generation Incentive Program (See Appendix G: Supplemental Battery Storage Requirements)
- Electric Vehicle Charging Infrastructure. (See Appendix H: Supplemental Electric Vehicle Charging Infrastructure Requirements)

On-Bill Financing with Incentives[1]

All energy efficiency retrofit projects receiving a PG&E meter-based or calculated incentive are eligible to apply for an OBF loan. In those cases, the qualification requirementsof the rebate or incentive program takes precedence in determining eligible equipment.

Projects must meet all requirements of the relevant incentive programs. Rebate and incentive checks are issued separately from the financing disbursement. All incentives must be approved before the OBF post-install review can be completed. A detailed invoice must be supplied for the customer's out-of-pocket costs. The customer's out-of-pocketcost will be the maximum loan amount.

Note: Projects that are considered New Construction, Savings by Design, Market Access Program, or a customized retrofit project that adds new load are not eligible for financing. This rule also applies to similar programs operated by other Program Administrators.

[1] PG&E offers Energy Efficiency Financing to eligible customers alongside calculated incentives. Projects that include measures where deemed incentives or product rebates will be obtained bythe customer are not eligible.

Eligible Costs

Eligible energy efficiency project costs that may be covered under the loan are those costs associated with the required components of the energy efficiency project for the life of the loan. Eligible projects costs may include:

- Equipment that qualifies for the program
- Implementation costs, such as material costs, labor, lift rentals, etc.
- Project Developer fees
- Costs associated with building code compliance
- Initial and ongoing Measurement & Verification (M&V) expenses, only if paid upfront under the loan disbursement
- Operations and Maintenance (O&M) activities, including costs for Customer O&M training, if paid upfront under the loan disbursement
- Quality Assurance (QA) Provider costs
- An energy efficiency project performance guarantee

Compliance with the criteria and protocol outlined in this handbook will be evaluatedby the QA Provider. While the OBF relies on this third-party QA verification process, PG&E has the ultimate responsibility to approve the loan based on the materials/reports submitted by the Customer, Project Developer, and QA Provider.

Equipment and Charges Not Eligible for Financing

- In-house labor or project management costs for energy efficiency measure installation
- Screw-in LED & Non-LED lighting products
- Equipment installed prior to loan execution unless the Customer/developer opts to forgo the pre-installation review (If the Customer elects to forgo the pre-installation review no funding for the project will be reserved.)
- Basic lighting measures, defined as all nonLED lighting retrofits (e.g., CFL and linear fluorescents), and basic lighting control measures in excess of 20 percent of the final loan amount
- User behavioral activities: behavioral measures, e.g., customer staffing or occupant behavior programs
- Add-ons to existing renovation projects

Project Developer Eligibility

The Customer is responsible for obtaining his/her own project developer for the project.

The Project Developer is a Contractor or a team/consortium of Contractors and service providers who plan and deliver the energy efficiency measures and associated services for the project.

To participate in OBF, the Project Developer must meet the following requirements:

- Project Developers must be part of the Investor Confidence Project network unless:
- Project is a lighting project and utilizing the OBF lighting workbook
- The project is qualified through a PG&E-funded rebate or incentive program in which case the rules of the rebate or incentive program take precedence
- The project is being developed by employees of the Customer who have qualifications equivalent to those required by the Investor Confidence Project.
- The project leverages the Tier 1A pathway

It's recommended that a member of the Project Developer team (for example, the Contractor or a service provider contracted to provide M&V services) be authorized by the Customer to receive data through Green Button or the Share My Data portal. This allows the Customer to share metered usage data directly from their PG&E account to the Developer team.

For additional energy management measures the following requirements apply:

- **Battery Storage**
  - **Approved SGIP Developer List**
  - Installer[2] must be registered with the California Contractors State License Board with the relevant Contractor Certification

  For more please see Appendix G: Supplemental Battery Storage Requirements,
- **Electric Vehicle Charging Infrastructure**
  - Installer[3] must be registered with the California Contractors State License Board with the relevant Contractor Certification

  For more please see Appendix H: Supplemental Vehicle Charging Infrastructure Requirements

[2] Installer may be contracted with Project Developer
[3] Installer may be contracted with Project Developer

Quality Assurance Provider Eligibility

The QA Provider plays a key role in OBF project qualification, reviewing EE Projects for compliance with OBF criteria. A single firm or individual can be both a QA Provider and a Project Developer but cannot serve both functions for an individual project.

The QA Provider needs to demonstrate appropriate experience both with project development and technical reviews to be able to effectively identify issues or concerns with the project-related methodologies, assumptions, and results. To participate in OBF, the QA Provider must meet the following requirement:

- QA Providers must be part of the **Investor Confidence Project (ICP) network**

Projects qualified for OBF through PG&E rebate and incentive programs are not required to be reviewed by an external QA Provider for OBF. The QA procedures of the rebate and incentive program will qualify the project for OBF.

Fees and Interest

The loans offered by PG&E under OBF are interest free (0%) and free of any fees, pre- payment penalties or other charges.[4] The loan terms and conditions are set to provide simple payback from energy savings during the maximum allowed loan term and are calculated by dividing the loan amount (eligible project cost less qualified program incentives) by the estimated monthly energy cost savings resulting from the retrofit project. The ensuing number of monthly payments must not exceed the maximum loan term.

OBF Loan Terms[2]

Loan terms and monthly payment amounts are based on the Customer's estimated monthly energy savings from the retrofit project. Customers may qualify for loans between $5,000 and $250,000 per premises[5] and loan periods of up to 120 months. Projects qualifying for OBF under Tier 1A are limited to loans between $5,000 and $100,000 per premises and loan periods of up to 72 months. For a more detailed description of the Tier 1A process, please refer to Appendix B.

	OBF	OBF with Incentives[4]	Tier 1A
Interest	**0%**	**0%**	**0%**
Minimum Loan Amount	**$5,000**	**$5,000**	**$5,000**
Maximum Loan Amount	**$250,000** (**$4,000,000** per premises by exception[6])	**$250,000**	**$100,000**
Maximum Loan Term, not to exceed the Expected Useful Life (EUL) of the measures	**120 months**	**120 months**	**72 months**

Customers may take multiple loans to support their projects. The maximum loan perpremises is $4,000,000.

[4] Loans are made possible using Energy Efficiency funds, which are public funds. Depending on the projectand type of work performed, a project that receives Energy Efficiency funds may be considered a public work(as defined under Labor Code section 1720 et. seq.). For information on the rules and regulations that apply to public works, including payment of prevailing wages, see the Department of Industrial Relations website: **https://www.dir.ca.gov/Public-Works/PublicWorks.html**.`

[5] Premises is defined in PG&E's Tariff under Rule 1: **https://www.pge.com/tariffs/assets/pdf/tariffbook/ELEC_RULES_1.pdf**

[6] The sum of the loan amounts for each customer premises shall not exceed two hundred and fifty thousand dollars ($250,000) except where, in PG&E's sole opinion, unique opportunities to capture large energy savings exist and all other OBF loan program terms will be met, the sum of the loan amounts may exceed two hundred fifty thousand dollars ($250,000) up to a maximum of four million dollars ($4,000,000).

To qualify for financing through On-Bill Financing, a project's estimated energy savings must be sufficient to repay the loan during the maximum allowable payment term.

The monthly payment is calculated based on estimated monthly energy savings using the Customer's current electricity and/or gas rate at the time of the loan agreement. Funds used for additional energy management measures will be repaid over the term of the energy efficiency project.

For Customers seeking an OBF loan over $250,000, the project will need an exception approval. Projects are deemed a unique energy management opportunity based on a review of the following factors: project scope and comprehensiveness, cost-effectiveness, depth of savings, and portfolio need to achieve California energy savings goals.

PG&E will calculate the Total Systems Benefits of the project using the Cost Effectiveness Tool (CET)[7] to evaluate the estimated benefits of the project. PG&E will calculate the Program Administrator Cost (PAC) test to determine cost-effectiveness taking into account administration and loan capital costs (See Appendix E for more information).

PG&E may exclude projects with government agency, public agencies and/or critical infrastructure projects from the cost effectiveness requirement.

[7] The Cost Effectiveness Tool is available at the California Energy Data and Reporting Systems (https://cedars.sound-data.com/). Please contact PG&E representatives if guidance is required on using the Cost-Effectiveness Tool.

Sample Loan Calculations

	OBF	OBF with incentive
Total Project Cost	$12,000	$12,000
Energy Efficiency Project Cost	$10,000	$10,000
Additional Measures Project Cost	$2,000	$2,000
Energy Efficiency incentives	$0	($2,500)
Loan Amount	$12,000	$9,500
Estimated energy savings from energy efficiency retrofit	$300	$300
Monthly loan installment billed for energy efficiency	$300	$300
Monthly loan installment for additional measures[8]	$60	$80
Total Monthly loan installment on PG&E utility Bill	$360	$380
Loan Term (simple payback period – energy efficiency)	33 months	25 months

If a business Customer closes a PG&E account before the loan term ends—for example if a business closes or moves to a new location—the business must pay off its loan balancewhen the final bill is settled.

Please contact **OBFprogram@pge.com** prior to the closure of the bill to request a copy of your original contract and confirm the current balance. Loan transfers to another non-residential PG&E customer account can be performed upon request and approval by both parties. Contact the OBF department for full details.

[8] Monthly loan installment for the additional measures (those not part of the energy efficiency projects) is calculated by dividing the Additional Measures Project Cost by the simple payback of the energy efficiency charge.

Multiple Premises

Business Customers are not able to combine multiple premises into a single project. Government Agency Customers that are utilizing OBF to complete comprehensive energy efficiency projects may be eligible to combine multiple premises for a single project. Each premises/location included in the project will be evaluated separately and must meet OBF funding requirements. In order to combine multiple premises into one project the following requirements must be met:

- There must be a single point of contact at the Government Agency Customer for PG&E billing inquiries for all of the premises included.
- The projects should be initiated and installed concurrently; the OBF loan will not be funded until the completion of all premises included in the project.

Multiple OBF Loans

Customers may receive multiple OBF loans. OBF loan limits will be applied in aggregate across outstanding balances and the newly proposed loans. For example, if a Customerhas a loan agreement for $50,000 they may finance another project at the same site for upto $200,000 ($250,000 maximum per premises). Only the outstanding balance of a loan is counted against a customer's per premises and per account limits. As customers may notreceive an OBF with Incentives loan over $250,000, any future loan amounts will be limitedto a maximum outstanding loan of $250,000 until the OBF with Incentives is fully repaid.

Maximum Loan Terms and Cost "Buy-Downs"

The maximum loan term is 120 months based on the projected energy savings. Where a project's payback period exceeds the maximum loan term, Customers may be eligible to buy down the project cost in order to meet the necessary loan terms. This buy-down reflects the amount that will not be covered by On-Bill Financing and should be paid directly to the Contractor according to terms agreed upon by the Customer and the Contractor. The buy-down is not paid to PG&E. Projects with a buy-down in excess of 30 percent of the total project cost are not eligible to use On-Bill Financing.

Determining Average Rates for DA and CCA Customers

To estimate the monetary value of gas and electric savings for the purpose of the OBF payback calculation for Direct Access (DA) and Community Choice Aggregation (CCA) Customers, PG&E will use the Customer's actual average past 12-month transportation cost ($/therm or $/kWh) plus the Customer's actual 12-month weighted average cost of gas ($/therm) and electricity ($/kWh) from their commodity provider(s). If actual weightedaverage cost is unavailable, PG&E's average past 12-month weighted average cost of
gas ($/therm) and electricity ($/kWh) can be used as a proxy for the commodity cost.

Calculating the OBF Loan

Loan terms and monthly payment amounts are determined based on the Customer's projected monthly savings from the installed measures, which are calculated using the Customer's current electricity and/or gas rate.

Project cost for measures	**$10,000**
Incentives	**$1,000**
Customer total loan amount	**$9,000**
Customer average rate (per kWh)	**$ 0.180**
Estimated annual energy savings (kWh)	**12,000**
Estimated annual energy cost savings	**$2,160**
Simple payback in years (loan amount divided by estimated annual energy cost savings)	**4.17**
Payback in months based on expected energy savings	**50**
Loan term (months) (1 month added for bill neutrality)	**51**
Estimated monthly energy cost savings	**$180**
Customer fixed monthly loan payment	$176.47

OBF loans are calculated to be "bill neutral" where the projected monthly energy savingsoffset the fixed monthly loan installment. For example, in the loan terms displayed above, the monthly payment of $176.47 is designed to match the monthly energy savings of $180. However, PG&E does not guarantee the energy savings estimate or project performance and cannot reduce or extend a loan's terms at the Customer's request.

The Customer may prepay the loan without penalty. (Please contact **OBFprogram@pge.com** prior to prepayment of loan balance.)

Costs for Additional Energy Management measures will be spread across the term of the loan calculated for the energy efficiency project (**Additional Measure Cost ÷ Loan Term**). For example if an additional $2,000 in the project above was used to fund Battery Storage Equipment, then the additional monthly payment would be $39.21 ($2,000 ÷ 51) taking the total fixed monthly loan payment to $215.68.

OBF Process Flow

The OBF loan process is designed to work with the existing delivery models for energy efficiency rebate incentive programs or projects with no incentive. Each party in the OBF loan process has defined roles and responsibilities in the process. Understanding these ensures that the OBF processes are effective and OBF loans are originated quickly and efficiently.

Roles and Responsibilities

Trade Professional/Contractor

OBF Role: Project Developer/Installer

- Submits pre- and post-installation applications for review based on the qualification of the related program
- Completes retrofit project to Customer satisfaction
- One year of Monitoring and Verification (M&V)

PG&E Account Representative

OBF Role: Customer Liaison

- Educates the Customer on OBF and respond to Customer inquiries
- Requests Payment History Screening (PHS) and submit PHS appeals on the Customer's behalf

Customer

OBF Role: Project Recipient

- Shares energy usage information with Project Developer, or authorizes PG&E to share data with Project Developer
- Signs Loan Agreement

QA Provider*

OBF Role: Engineering Review

- Reviews energy savings calculations
- Verifies program criteria are met

OBF Team

OBF Role: Review and Approval

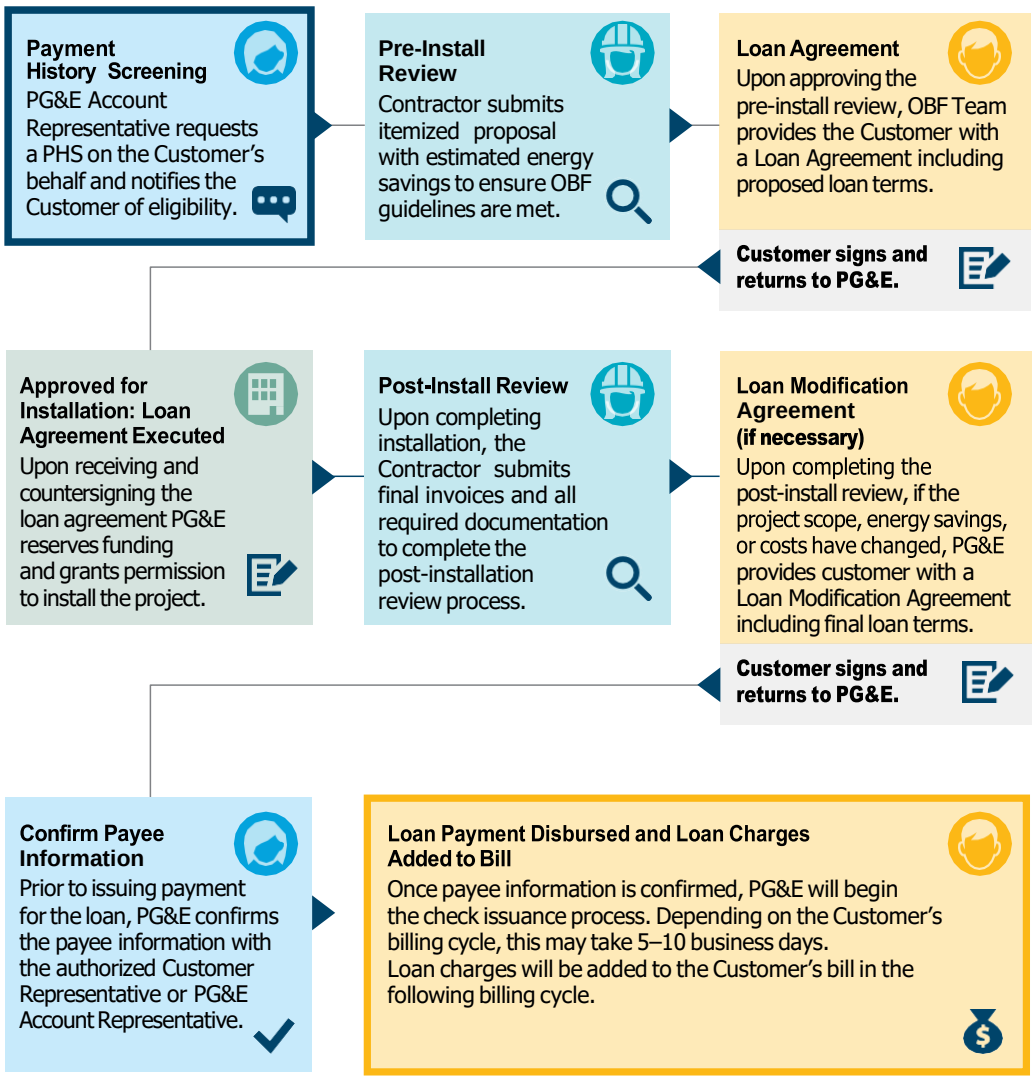
- Communicates PHS results to PG&E Account Representative
- Creates and distributes loan agreements
- Disburses loan payments and sets up billing on Customer's account

*Note: For Tier 1A projects, the energy savings quality control will be automated through the Tier 1A application workbook template. The Tier 1A workbook includes the engineering estimates for each measure and serves as the rationale for project approval.



Process Flow Overview

The OBF application/lending process is comprised of eight steps whether the project is with or without incentives.



- For a more detailed description of the OBF process please refer to Appendix B.
- For a more detailed description of the OBF with Incentives process please refer to Appendix C.

Changes to Project Scope and/or Cost

It is common for a project's scope and/or cost to alter during the installation phase. These changes are allowable under the OBF program. Changes to the estimated energy savings and/or the total project cost will impact the loan terms. PG&E makes no commitment to funding changes to a project until a new agreement has been executed or the existing agreement is modified.

Contractors and customers have two choices in how they would like to proceed in obtaining a new loan agreement/loan modification:

1. **Reissue the Agreement.** The loan agreement provides the customer and contractor confidence that PG&E will fund the project approved through pre-install review phase. Any changes to the scope or cost means that PG&E is no longer fully committed to the project being installed. Should the customer (or contractor) determine that commitment from PG&E is necessary to continue installation, the customer may request the loan agreement be reissued. The updated project details must be re-submitted for pre-install review. If eligible, and if sufficient funds are available, a new loan agreement will be issued by PG&E reflecting the new loan terms. PG&E will not reissue a loan agreement if the project is fully installed (see 2 below).

2. **Loan Modification after Post-Install Review.** Alternatively, the customer and contractor can choose to submit the modifications to a completed project in the post-install review phase. This may be preferable to avoid delays to the installation of a project. Should the project pass the post-install review phase, and if there is sufficient funding available, a loan modification agreement will be executed to alter the terms of the loan.

   PG&E recommends the customer and the contractor verify that the appropriate contractual arrangements are in place for the project. PG&E will not intervene between the customer and contractor for a project, or elements of a project, that are unable to be funded using an OBF loan following post-install review.

Projects that exceed the maximum standard loan limits (see OBF Loan Terms – pg. 7), will require a new exception approval in both scenarios. Exceptions are provided at PG&E's sole discretion. (see Appendix E, Process Steps: On-Bill Financing Exception Request – pg. 34).

OBF Check Disbursement

PG&E is not obligated to fund the loan after installation under one or more of the following conditions:

1. The final loan does not meet minimum loan amount.
2. Payback exceeds the program's maximum limit.
3. There is no original Customer signature on the OBF Loan Modification Agreement(if a loan adjustment is necessary).
4. PG&E determines the Customer no longer meets the credit requirements.
5. The project is not substantially the same project reviewed in the pre-installation phase.

OBF Loan Repayment

Approximately 30 days after the loan check is issued, the fixed monthly loan installment will appear as a line item on the Customer's PG&E bill on the account specified on the loan agreement. The installment and remaining balance can be found in the Other Programs and Services section of the bill. The loan installment will appear on the monthly bill for the remainder of the loan term. The Customer is responsible for repayment of the entire agreed-upon loan amount in accordance with the Loan Agreement or Loan Modification Agreement.

Closed Accounts

If there is a loan balance on a closed account, the balance is due in full on the final utility bill. If the Customer with the loan agreement opens a new account at a new location, he/she may make payment arrangements with the credit team. The loan balance will be treated as a past due bill, not as a continuation of OBF loan. If the Customer breaks the payment arrangement, the Customer is at risk of meter shut-off pursuant to the discontinuance provisions in PG&E's tariff under Rule 11.

Tax Liability

PG&E is not responsible for any tax liability resulting from OBF loans and provides no guidance on the tax or accounting treatment of OBF loans.

Early Loan Repayment

There are no penalties for early loan payoff. The loan agreement requires that the Customer contact PG&E prior to submitting full payment. This allows the OBF team to ensure the loan payment is applied to outstanding loan charges. Please contact the OBF team at **OBFProgram@pge.com** to make arrangements to pay off an OBF loan early.

OBF Rate Schedules and Division of Corporations Financing Exemption

The Division of Corporations is California's financial authority. It regulates financial lending policy. The Division of Corporations in its Release 60-FS ("Release"), issued on 7/14/2006, determined that the Investor-Owned Utilities (IOUs) are not "engaged in the business" of a finance lender or broker under Financial Code Section 22100 ofthe California Finance Lenders Law (CFLL) when making Business loans under the conditions described in the Release. Therefore, the IOUs are not required to obtain a finance lender or broker license under the CFLL when engaged in these activities.

OBF rate schedules and loan agreements are approved by the CPUC and availableat the links below.

Gas and Electric OBF tariffs

pge.com/tariffs/assets/pdf/tariffbook/ELEC_SCHEDS_E-OBF.pdf
pge.com/tariffs/assets/pdf/tariffbook/GAS_SCHEDS_G-OBF.pdf

General loan agreement

pge.com/tariffs/assets/pdf/tariffbook/ELEC_FORMS_79-1118.pdf
pge.com/tariffs/assets/pdf/tariffbook/GAS_FORMS_79-1118.pdf

Self-installed loan agreement

pge.com/tariffs/assets/pdf/tariffbook/ELEC_FORMS_79-1126.pdf
pge.com/tariffs/assets/pdf/tariffbook/GAS_FORMS_79-1126.pdf

California State Government loan agreement

pge.com/tariffs/assets/pdf/tariffbook/ELEC_FORMS_79-1143.pdf
pge.com/tariffs/assets/pdf/tariffbook/GAS_FORMS_79-1143.pdf

Local Agencies and Districts loan agreement

pge.com/tariffs/assets/pdf/tariffbook/ELEC_FORMS_79-1194.pdf
pge.com/tariffs/assets/pdf/tariffbook/GAS_FORMS_79-1194.pdf

Appendix A
Project Qualification

1.1 Project Tier Definitions

OBF can support Energy Efficiency (EE) Projects and Energy Efficiency Measures (EEMs)that vary in size and complexity. To assist Quality Assurance (QA) Providers in evaluating energy efficiency projects, OBF defines two tiers of projects ("Project tiers" or "tiers").

The tier system provides a guideline to help Project Developers understand the information, associated costs and expected level of detail and effort typically required to be accepted for OBF.

Tier 1 projects are typically for projects with no more than 1-2 small, simple measures that do not fundamentally change building design (e.g. pump motor replacements or lighting retrofits). Tier 2 projects are typically for projects with multiple and/or complex measures that may cover multiple systems and system types.

Tier 1A is an alternative qualification pathway for OBF customers seeking an OBF loan between $5,000 and $100,000 with loan periods of up to 72-months. Only a select list of simple, like-for-like replacement measures are eligible for this tier. The energy savings quality control will be automated through the Tier 1A application workbook template. The Tier 1A workbook includes engineering estimates for each measure and serve as a rationale for project approval. If the estimated energy savings are deemed reasonable by engineering industry standards, the project can proceed through the Tier 1A process.If the estimated energy savings are deemed unreasonable, the contractor should submit the project as Tier 1 or Tier 2, as the project will require the full QA engineering review.

Projects must follow the eligibility requirements described in this handbook. These requirements draw from the protocols of the Investor Confidence Project (ICP), specifically the **ICP Targeted Protocol**. For more details on how to interpret the technical requirements in this document, please refer to the **ICP Targeted Protocol** which describes the ICP targeted framework, and the **ICP Project Development Specification**, which describes the ICP project process and documentation requirements.

While OBF does not require ICP Investor Ready Energy Efficiency project certification, projects that comply with the OBF program requirements (that are not establishing project eligibility through a rebate or incentive claim) will also meet the requirements for ICP project certification.

The QA Provider will evaluate the proposed efficiency project based on its appropriate tier in the table below. Tier 1A projects do not require a QA engineering or technical review. Instead, the OBF Team will conduct a program review of the Tier 1A workbook.

Ultimately, for Tier 1 and Tier 2 projects, the QA Provider has both the responsibility and flexibility to assess the proposed efficiency project's tier and the applicable ICP requirements and documentation. The QA Provider will determine the applicable requirements for a proposed efficiency project that overlaps or falls between tiers. The QA Provider may also request additional information from the Project Developer during the review process to reinforce a documentation requirement that falls outside the proposed efficiency project's stated tier.

Tier	Details
Tier 1A: Basic	**Tier 1A projects typically consist of small, simple measures that do not fundamentally change building design, such as lighting and HVAC retrofits. The features of a typical Tier 1A project are:** • Typically no more than one measure type implemented • Uses energy calculation methods that don't require an energy model • EEMs are limited to single system measures or "one-for-one" replacements that do not change the building or system design. • EEMs have little to no dependency on or integration with other building systems or measures. • EEMs have little dependency on weather, occupancy, other building systems or measures, or other independent building characteristics. • O&M training and annual check-in provided to customer.
Tier 1: Basic	**Tier 1 projects typically consist of small, simple measures that do not fundamentally change building design, such as lighting retrofit or pump motor replacement. The features of a typical Tier 1 Project are**: • Typically no more than one or two measure types implemented • Uses energy calculation methods that don't require an energy model • EEMs are generally "drop-in" or "one-for-one" replacements that do not change the building or system design. • EEMs have little to no dependency on or integration with other building systems or measures. • EEMs have little dependency on weather, occupancy or otherindependent building characteristics. • O&M training and annual check-in provided to customer • Annual M&V reporting to customer
Tier 2: Multimeasure	**Tier 2 projects may include simple measures that cover multiple systems and system types, or may involve limited redesign and multiple complex measures for one building system with limited interactive effects. The features of a typical Tier 2 Project are:** • Typically three or more measures conducted • Uses energy calculation methods that don't require an energy model • EEMs may be "one-for-one" replacement for multiple systems and system types, or may involve some redesign and multiple complex measures for one building system. • EEMs have limited dependency on occupancy or otherindependent building characteristics. • O&M training and annual check-in and/or O&M servicesprovided to customer • Annual M&V reporting to customer and post-retrofit trending required • All Projects with non-Energy Efficiency measures must use Tier 2

1.2 Project Documentation Requirements

The Project Developer will present and track the development of the EE project in the form of a Project Package. The Project Package for Tier 1 or Tier 2 projects must include all components required by the OBF program in detail sufficient to allow for quality assurance review. These components are generally determined by the EE Project Tier; however, the QA Provider may request components from other tiers depending on the type and complexity of the EE Project.

The project report documents will be reviewed by the QA Provider prior to project installation an upon project completion. Once the QA Provider finds that the EE Project iseligible for a loan, the final Project report or documentation will be attached as part of the loan application to PG&E.

The key components of the Project Report are discussed in more detail below: Baselining, Energy Savings Calculations and Cost Estimation, Operational Performance Verification, Measurement & Verification, and Operations & Maintenance.

If a Tier 1A project is deemed to have unreasonable energy savings, the contractor shouldsubmit the project as Tier 1 or Tier 2. In this instance, the contractor must adhere to the requirements of the Tier 1 or Tier 2 pathway.

1.3 Baselining

Baselining is the process of establishing the scope of the project and collecting basic information about the building, the addressable energy use and the proposed project.

Baselining is in accordance with **ICP Targeted Commercial Protocol (Section 2.0 and 3.0)** with the following exceptions:

- Twelve months (minimum) of historical energy use data for all PG&E accounts and relevant fuels[9] used at the site is required for all projects.
- Baseline operational/performance data, such as systems trend data collected at the building, is optional for Tier 1 but required for Tier 2.
- Site-specific weather data (e.g., average daily temperature for the site) if used in the energy savings calculations. Note that if weather is utilized in the energy savings calculation, the source of the weather data will need to be submitted as part of the project documentation requirements.

[9] Note that if weather is utilized in the energy savings calculation, the source of the weather data will need to be submitted as part of the project documentation requirements.

OBF documentation required for Baselining is as follows:

Tier 1A	Tier 1	Tier 2	Documentation	Details	Submit Pre- or Post-Install
■	■	■	12 months of energy data from PG&E accounts	Whole-building, 12 most recent, continuous months (minimum) for PG&E accounts and fuels used at site that are relevant to the proposed project Only energy savings on PG&E electric and gas accounts are eligible for OBF projects.	Pre
		■	Energy end- use breakdown	For major building end-uses, e.g., HVAC, lighting; can be measured (e.g., sub-metered) or estimated	Pre
■	■	■	Utility energy rates for PG&E accounts	Rates ($/kWh, $/th) and rate schedule (TOU, flat rate) for the fuels relevant to the proposed project	Pre
	■	■	Building existing equipment and asset data	Covering the systems and equipment involved in or relevant to the proposed project, e.g.: • Site visit reports • Audit reports • Equipment lists or inventories • Equipment schedules • Photos • Building plans and drawings	Pre
		■	Building existing equipment operational data	For the systems and equipment involved in or relevant to the proposed project, e.g.: • Measured trend data • Equipment functional test results • BMS screenshots or printouts	Pre

1.4 Energy Savings Calculation and Cost Estimation

The energy savings calculations represent a key component of the OBF program because the EE Project savings calculations for electric and gas determine the loan terms for each project. As part of the Project Report development, the ProjectDeveloper will complete the energy savings calculations and the cost estimate.

The QA Provider will verify the baseline assumptions and energy savings calculationsfor completeness and accuracy, and if needed will request changes or additions
for clarity or accuracy. The QA Provider has the discretion to request a review of the calculation methods, baseline assumptions, utility billing history or calculation tools as needed.

The development of energy savings calculations and cost estimates is in accordance with **ICP Targeted Commercial Protocol (Section 4.0)**, with the following exceptions:

- Person performing savings calculations does not need a specific qualification or certification (BEAP, CEM, CEA, PE) or five years experience. Project Developer credentialrequirements are sufficient.
- Qualifications for person performing savings calculations do not need to be provided. Project Developer credential requirements are sufficient.
- Cost estimates for all projects must be based on actual project bids from the installing contractor, not estimates calculated by the Project Developer or similar. Cost estimates must be broken out by individual energy conservation measure (the Project Developer needs to provide an itemized invoice).

OBF documentation required for energy and cost estimates is as follows:

Tier 1A	Tier 1	Tier 2	Documentation	Details	Submit Pre- or Post-Install
■	■	■	Energy and cost summary	Summary page of costs, energy savings by commodity type, and simple payback period for each proposed measure and for the proposed project as a whole	Pre
■	■	■	Energy conservation measures (ECMs)	List or describe each energy conservation measure that is part of the proposed project scope. The list may be from an audit report, site report or similar.	Pre
■	■	■	Cost estimate	• Cost estimates for the proposed project as a whole and for each individual energy conservation measure • Should ideally come from a contractor bid for the proposed work • Contractors provide detailed invoices that correspond to the installed equipment.	Pre and Post

Tier 1A	Tier 1	Tier 2	Documentation	Details	Submit Pre- or Post-Install
	■	■	Energy savings calculations	• Energy savings calculations (by commodity) for each energy efficiency measure • Calculations may be in the format of a spreadsheet, table, regression or energy model. • Calculations must be open book with method either explicit by viewing or described/ explained. • Calculations must clearly state all inputs, input sources, constants and assumptions. • If energy software is used, it must be publicly available and documented software, and inputs and outputs must be clearly printed.	Pre and Post
	■	■	Actual or typical annual weather data	For HVAC measures if used in the energy savings calculations	Pre
■	■	■	Updated energy and cost summary	Updated summary, if the installed project costs and energy savings differ from the pre-installation estimates	Post
■	■	■	Updated energy conservation measures (ECMs)	Updated ECM descriptions, if the installed measures or project scope differ from pre-installation	Post
■	■	■	Updated cost estimate	Updated cost estimate and itemized project invoice	Post
	■	■	Updated energy savings calculations	Updated energy savings calculations, if the installed measures and project scope differ from pre-installation	Post

1.5 Operational Performance Verification (OPV)

The OBF Installation Verification exists to ensure that equipment is installed as designed and has the ability to achieve predicted energy savings. It also exists to collect any data necessary to revise the energy savings estimate, as the energy savings estimate and final project costs provided at this stage will form the basis of the OBF loan.

Every project should have a short Operational Performance Verification (OPV) plan that establishes the scope and performance criteria for verifying a given project, and for adjusting the energy savings estimates as necessary. Note that OBF_AP does not require third party commissioning.

A sample **OPV Plan Template** is available from ICP.

The verification of the installation, and verification that it is installed and operates correctly, is in accordance with **ICP Targeted Commercial Protocol (Section 5.0)**, with the following exceptions:

- A qualified OPV Authority does not need to be appointed.
- Qualifications for person performing OPV do not need to be provided.
- A statement by the Project Developer that the project as designed and built "conforms with the intent and scope of the original project and has the ability to achieve predicted energy savings" does not need to be provided. This statement is inherent in the application to PG&E.
- Updated energy savings calculations that reflect the installed condition of the project must be provided. This energy savings calculation(s), provided at the timeof the installation, forms the basis of the loan amount.

OBF documentation required for OPV is as follows:

Tier 1A	Tier 1	Tier 2	Documentation	Details	Submit Pre- or Post-Install
■	■	■	OPV Plan	A short document that describes the post-installation activities that will occur to: (a) verify the project is installed and performs as planned and (b) update the energy savings estimates if necessary to reflect the installed condition Post-installation activities should be typical to the scale of the project, e.g.: • Equipment functional testing • Punch list generation • As-built drawings generation • Training and handoff • Energy calculations adjustment	Pre & Post
		■	Training materials	Records of training, handoff and/or training materials and handoff materials, e.g., equipment manuals	Post

Tier 1A	Tier 1	Tier 2	Documentation	Details	Submit Pre- or Post-Install
		■	**Testing results**	**Records of post-installation activities, e.g.:** • Testing reports • Punch lists • As-built drawings	Post

1.6 Operations and Maintenance (O&M)

All OBF projects must have, at a minimum, a scheduled yearly set of communications (e.g., email, phone or in person) between Customers and the Project Developer to confirm ongoing operation and customer satisfaction. In all cases, customer shall be given operating manuals and trained as necessary to operate and maintain installed equipment.

All projects require a brief O&M Plan which describes the planned scope of O&M activities, O&M services and training provided by the Project Development Team and training materials. O&M services may be included in the loan amount provided the project cost meets the program requirements.

A sample **O&M Plan Template** is available from ICP.

The operations and maintenance requirements are in accordance with **ICP Targeted Commercial Protocol (Section 6.0)**, with the following exceptions:

- Annual follow-up monitoring or evaluation is required for all projects.
- An O&M plan must be written and included in the project package.OBF documentation required for O&M is as follows:
-

Tier 1A	Tier 1	Tier 2	Documentation	Details	Submit Pre- or Post-Install
■	■	■	**O&M Plan**	**A short document that describes planned O&M activities at the project site, e.g.:** • Check-ins with Customer (annual phone call or email) • Contracted O&M services if any (sample invoices, sample scopes of services)	**Pre**

1.7 Measurement and Verification (M&V) Plan

For OBF, the Project Development Team must develop an M&V plan that describes how the energy savings and performance will be monitored over time and reported to the Customer. The Project Development Team may leverage the International Performance Measurement and Verification Protocol (IPMVP) Plan as reference. The M&V plan will be shared with the Customer and will establish the expected outcomes for the EE Project, including how to analyze and remedy variances between actual and expected energy performance.

A sample **M&V Plan Template** for IPMVP Option C, Whole Building, is available from ICP. Section 7 of the IPMVP Core Concepts, October 2016 lists the requirements of an IPMVP-compliant M&V plan.

The measurement and verification requirements, including the requirements for the M&V Plan, are in accordance with **ICP Targeted Commercial Protocol (Section 7.0),** with the following exceptions:

- Justification for the IPMVP option(s) applied is not required.

OBF documentation required for M&V is as follows:

Tier 1A	Tier 1	Tier 2	Documentation	Details	Submit Pre- or Post-Install
	■	■	**M&V Plan**	**A short document that describes how the energy savings and performance will be monitored over time and reported to the Customer, e.g.:** • Building energy data to be collected • Building operational trend data to be collected, if any • Method for adjusting energy savings estimates over time, e.g., calculation updates	Pre

Appendix B
Process Steps: On-Bill Financing

1. Payment History Screening

The Payment History Screening (PHS) is initiated by the PG&E Account Representative on the customer's behalf. In some cases the customer may be able to submit the request directly to the PG&E OBF team.

Projects that exceed $250,000 and are seeking an exception as a 'unique energy savings opportunity' will be asked to provide a project summary and get an early approval of the exception allowing the project development to proceed.

The following information will be required by the PG&E Account Representative.

- Anticipated loan amount
- Authorized Customer Signatory Contact information
- Gas or Electric Service ID (found on page 3 of the PG&E Energy Statement)
- Business ID or Social Security Number for PG&E Account Holder
- E Signature preferred by customer (yes or no)

2. Pre-Install Review—Project Developer checklist (Appendix D)

The Project Developer submits the following documents to an ICP Certified QA Reviewer. Additional information may be necessary depending on project scope.

- Project energy savings documentation or OBF Lighting Workbook
- Evidence of hours of operation used in savings calculation
- Itemized customer quote detailing project costs
- 12 months of Customer Utility Data
- Photo verification of equipment and savings calculations

For Tier 1A projects, the Project Developer will use the Tier 1A workbook for project submission. If a "no" for pre-install eligibility is shown on the Start tab, the project is not eligible for proceeding through the Tier 1A process. The project will need to be submitted as a Tier 1 project and proceed with the QA review.
Once QA is complete, the completed documentation will be submitted to PG&E's OBF Team to generate a loan agreement for the Customer.

3. Loan Agreement

OBF Team generates a loan agreement for the Customer to sign indicating the terms and payment to appear on their PG&E bill. The Customer signs and PG&E countersigns.

The OBF loan agreement must be signed by a representative of the Customer who is authorized to undertake a financial obligation on behalf of their business. The signed loan agreement may be emailed to **OBFProgram@pge.com.**

4. Project Installation

Once the signed loan agreement is received by PG&E and countersigned, all parties will be notified via email that installation may begin. Measures must be installed by an appropriately licensed contractor unless the Customer performs a self-install.

The Project Developer will carry out typical post-installation activities such as equipment functional testing, creation of as-built documents, inspection and punch list generation, spot measurements and/or commissioning, as described in the Project Report.

All equipment must be installed pursuant to the manufacturer's specifications. The Customer and Project Developer are responsible for ensuring that all equipment and installations are in compliance with state and local building codes and ordinances as well as manufacturers' requirements.

5. Post-Install Review

The Project Developer will carry out typical post-installation activities, such as equipment functional testing and/or commissioning, as described in the Project Report.

The Project Developer submits the following documents to an ICP Credentialed QA Reviewer.

- Project energy savings documentation or OBF Lighting Workbook
- Photos of Installed Energy Efficiency Measures
- Project Report and Project Developer checklist
- Itemized customer invoice detailing project costs

Additional information may be necessary depending on project scope. QA fees may apply.

For Tier 1A projects, the Project Developer will use the Tier 1A workbook for project submission. If a "no" for post-install eligibility is shown on the Start tab, the project is not eligible for proceeding through the Tier 1A process. The project will need to be submitted as a Tier 1 project and proceed with the QA review.

The QA Provider will review the post-installation documents to verify that the activities match the installation verification plan and will review for any changes using the Post-Install QA Checklist. They will then complete the QA Summary. This summary will be provided as the cover page of the application packet and will clearly state whether the QA Provider found the EE Project to meet the requirements for the loan. If the QA Provider is not able to make these assertions in good faith, the QA Provider will return the Project Report to the Project Developer for changes.

Summary of Steps to Complete Post-Install review:

1. Project Developer will complete the Project Report.
2. The QA Provider will review the post-installation Project Report to verify that the activities match the installation verification plan and will review for any changes using the Post-Install QA Checklist (Appendix B).
3. The QA Provider will complete the QA Summary. This summary will be provided as the cover page of the application packet, and will clearly state whether the QA Provider found the EE Project to meet the requirements for the loan. If the QA Provider is not able to make these assertions in good faith, the QA Provider will return the Project Report to the Project Developer for changes. A copy of the QA Summary can be found with the QA Checklist.

Once QA review is complete, the QA reviewer will notify PG&E's OBF team of final loan and energy savings. PG&E's OBF team will then either issue a loan modification agreement or proceed with check issuance.

Projects qualifying for OBF under Tier 1A are subject to site inspections to confirm measure installation. Projects are selected at random, and Project Developers should expect at least one site inspection annually.

Once the QA provider completes their final review the OBF Program Manager will review the final package in Energy Insight (EI) and approve the OBF department to finalize the loan terms for customer signature and/or approval if no changes to the final terms of the contract.

6. Loan Modification (if applicable)

If the final scope of the project differs from the scope detailed in the original Loan Agreement, a Loan Modification Agreement may be required. For projects where the final loan amount changes by less than $100 and there is no change to the loan term, a loan modification may be requested but will not be required. Where necessary, the OBF team will send the Loan Modification Agreement to the Customer via email.

The Loan Modification Agreement will include the payee information previously provided. By signing, the Customer confirms the accuracy of that payee information.

The OBF Loan Modification Agreement must be signed by an authorized representative of the Customer who is authorized to undertake a financial obligation on behalf of their business.

7. Check Issuance Confirmation and Loan Proceeds Payment

The final loan details are confirmed with the customer by the PG&E Customer Relationship Manager. PG&E's On-Bill Financing Department will then add the loan charges to the Customer's utility bill for repayment and the loan check is mailed to the payee.

8. Project M&V, O&M

After installation, the EE Project will be measured and operated according to the M&V and O&M plans set forth and approved in the Project Report. Tier 1A projects will not require an M&V plan.

1. M&V and O&M services should be provided over time in accordance with the approved O&M Plan service description.

2. The Project Developer must send a copy of the M&V annual report and the minimum O&M reporting to PG&E once per year for the life of the loan.
   a. Though the Project Developer may offer reporting more often, PG&E requests only annual reporting.

PG&E has the discretion to take corrective action based on the reporting. For example, if a particular Project Developer is not installing quality projects or is consistently overestimating energy savings, PG&E may prohibit them from future participation in OBF.

Appendix C
Process Steps: On-Bill Financing with Incentives

1. Payment History Screening

The PHS must be initiated by the PG&E Account Representative. The following information is necessary:

- Anticipated loan amount
- Anticipated rebate amount (if applicable)
- Authorized Customer Signatory Contact information
- Gas or Electric Service ID (found on page 3 of the PG&E Energy Statement)
- Business ID or Social Security Number for PG&E Account Holder
- E Signature preferred by customer (yes or no)

2. Pre-Install Review

The Project Developer submits the following documents to PG&E's OBF Department:

- Itemized Customer Quote detailing project costs
- Optional but recommended: energy savings calculations that clearly detail the assumptions used in calculating the Customer's expected energy savings
- Additional documentation may be required based on the project scope

3. Loan Agreement

OBF Team generates a loan agreement for the Customer to sign indicating the terms and payment to appear on their PG&E bill. The Customer signs and PG&E countersigns.

The OBF loan agreement must be signed by a representative of the Customer who is authorized to undertake a financial obligation on behalf of their business. The signed loan agreement may be emailed to **OBFProgram@pge.com**

Once the signed loan agreement is received by PG&E and countersigned, all parties will be notified via email that installation may begin. Measures must be installed by an appropriately licensed contractor unless the Customer performs a self-install with in-house staff. All equipment must be installed pursuant to the manufacturer's specifications. The Customer is responsible for ensuring that all equipment and installations are in compliance with state and local building codes and ordinances, as well as manufacturers' requirements.

4. Apply for Incentives[8]

Once installation of all equipment is complete, the Customer or Contractor should submit all necessary rebate and/or application materials to the appropriate rebate and/or incentive program(s) prior to submitting the post-installation OBF application materials.

5. Post-Install Review

After the applicable rebate pays, the Project Developer submits the following documents to the On-Bill Financing Team:

- Itemized final Customer invoice
- Itemized final energy savings calculations

6. Loan Modification

If the final scope of the project differs from the scope detailed in the original Loan Agreement, a Loan Modification Agreement may be required. For projects where the final loan amount changes by less than $100 and there is no change to the loan term, a loan modification may be requested but will not be required.

Where necessary, the OBF team will send the Loan Modification Agreement to the Customer via email. If the final scope of the project exceeds the maximum loan terms, the OBF team will indicate that a "buy-down" is needed by the Customer to proceed with the OBF loan.

The Loan Modification Agreement will include the payee information previously provided. By signing, the Customer confirms the accuracy of that payee information.

The OBF Loan Modification Agreement must be signed by an authorized representative of the Customer who is authorized to undertake a financial obligation on behalf of their business.

7. Check Issuance

Once the signed Loan Modification Agreement (if applicable) is received by PG&E, the loan will be created and the loan check will be issued to the Customer or the Contractor in accordance with the loan agreement. The check will be mailed to the address specified on the loan agreement. The loan disbursement cannot be split into multiple checks.

Appendix D
Project Developer Documentation Checklist

Tier 1A	Tier 1	Tier 2	Documentation	Details	Submit Pre- or Post-Install
PHASE: Baselining					
■	■	■	12 months of energy data from PG&E accounts	Whole-building, 12 most recent, continuous months (minimum) for PG&E accounts and fuels used at site that are relevant to the proposed project Only energy savings on PG&E electric and gas accounts are eligible for OBF projects.	Pre
		■	Energy end- use breakdown	For major building end-uses, e.g., HVAC, lighting; can be measured (e.g., sub-metered) or estimated	Pre
■	■	■	Utility energy rates for PG&E accounts	Rates ($/kWh, $/th) and rate schedule (TOU, flat rate) for the fuels relevant to the proposed project	Pre
	■	■	Building existing equipment and asset data	Covering the systems and equipment involved in or relevant to the proposed project, e.g.: • Site visit reports • Audit reports • Equipment lists or inventories • Equipment schedules • Photos • Building plans and drawings	Pre
		■	Building existing equipment operational data	For the systems and equipment involved in or relevant to the proposed project, e.g.: • Measured trend data • Equipment functional test results • BMS screenshots or printouts	Pre

Tier 1A	Tier 1	Tier 2	Documentation	Details	Submit Pre- or Post-Install
PHASE: Energy Savings Calculations and Cost Estimation					
■	■	■	Energy and cost summary	Summary page of costs, energy savings by commodity type, and simple payback period for each proposed measure and for the proposed project as a whole	Pre
■	■	■	Energy conservation measures (ECMs)	List or description of each energy conservation measure that is part of the proposed project scope. The list may be from an audit report, site report or similar.	Pre
■	■	■	Cost estimate	• Cost estimates for the proposed project as a whole and for each individual energy conservation measure • Should ideally come from a contractor bid for the proposed work	Pre
	■	■	Energy savings calculations	• Energy savings calculations (by commodity) for each energy efficiency measure • Calculations may be in the format of a spreadsheet, table, regression or energy model. • Calculations must be open book with method either explicit by viewing or described/explained. • Calculations must clearly state all inputs, input sources, constants and assumptions. • If energy software is used, it must be publicly available and documented software, and inputs and outputs must be clearly printed.	Pre
	■	■	Actual or typical annual weather data	For HVAC measures if used in the energy savings calculations	Pre

Tier 1A	Tier 1	Tier 2	Documentation	Details	Submit Pre- or Post-Install
PHASE: Operational Performance Verification (OPV)					
■	■	■	OPV Plan	A short document that describes the post-installation activities that will occur to: (a) verify the project is installed and performs as planned and (b) update the energy savings estimates if necessary to reflect the installed condition Post-installation activities should be typical to the scale of the project, e.g.: • Equipment functional testing • Punch list generation • As-built drawings generation • Training and handoff • Energy calculations adjustment	Pre
		■	Training materials	Records of training, handoff and/or training materials and handoff materials, e.g., equipment manuals	Post
		■	Testing results	Records of post-installation activities, e.g.: • Testing reports • Punch lists • As-built drawings	Post
■	■	■	Updated energy and cost summary	Updated summary, if the installed project costs and energy savings differ from the pre-installation estimates	Post
■	■	■	Updated energy conservation measures (ECMs)	Updated ECM descriptions, if the installed measures or project scope differ from pre- installation	Post
■	■	■	Updated cost estimate	Updated cost estimate and itemized project invoice	Post
	■	■	Updated energy savings calculations	Updated energy savings calculations, if the installed measures and project scope differ from pre-installation	Post

Tier 1A	Tier 1	Tier 2	Documentation	Details	Submit Pre- or Post-Install
PHASE: Operations and Maintenance (O&M)					
■	■	■	O&M Plan	A short document that describes planned O&M activities at the project site, e.g.: • Check-ins with Customer (annual phone call or email) • Contracted O&M services ifany (sample invoices, sample scopes of services)	Pre
PHASE: Measurement and Verification (M&V)					
	■		M&V Plan	A short document that describes how the energy savings and performance will be monitored over time and reported to the Customer, e.g.: • Building energy data to be collected • Building operational trend data to be collected, if any • Method for adjusting energy savings estimates over time, e.g., calculation updates	Pre

Appendix E
Process Steps: On-Bill Financing Exception Request

1. Payment History Screening

The PHS must be initiated by the PG&E Account Representative. The following information is necessary:

- Anticipated loan amount
- Anticipated rebate amount (if applicable)
- Authorized Customer Signatory Contact information
- Gas or Electric Service ID (found on page 3 of the PG&E Energy Statement)
- Business ID or Social Security Number for PG&E Account Holder
- E Signature preferred by customer (yes or no)

2. Project Exception Screening

Projects seeking an OBF loan over $250,000, will be screened to determine how PG&E will claim the associated savings (meter-based or custom calculation). Projects are screened on the following factors:

- Project type
- Appropriate baseline
- Size of the customer's energy usage

If deemed ineligible for the population meter-based savings claim (NMEC), the standard approach for OBF projects, the project will be directed to either the site specific NMEC or custom savings claim methodologies. Projects following the site specific NMEC or custom pathway must adhere to the requirements of the meter-based or custom workflows.

PG&E will use the Program Administrator Cost (PAC) Test to determine project cost-effectiveness. PG&E will use the following assumptions for that test.

Benefits:

- Total System Benefits discounted back using the Utility Weighted Average Cost (WACC) of Capital in the Cost Effectiveness Tool (CET)
- Loan Repayments Benefits discounted back using the Utility WACC in the CET

Costs:

- Loan Amount
- Administration Assumption of $10,000

Battery Storage Measures, and Electric Vehicle Charging Infrastructure may be excluded from this calculation.

Additional information on the exception request process can be found on the OBF Exception Requests for Additional Funding.

3. Pre-Install Review

If the project utilizes the custom savings calculation method, the Contractor submits the following documents to PG&E's CIT/QC&C Department:

- Project application
- EI project page (print out)
- Evidence of Public Purpose Program (PPP) charge (found on the PG&E Energy Statement)
- Project Report with referenced documentation
- Influence narrative
- Photo verification of equipment and savings calculations
- Manufacturer's specifications
- Customer energy consumption profile and/or production capacity
- Annual energy usage history
- Pre-install tech. review form

The project will undergo the CIT policy review and the CIT custom technical review. Additional information can be found on the Custom Process: Project or Ex Ante Review.

4. Loan Agreement

OBF Team generates a loan agreement for the Customer to sign indicating the terms and payment to appear on their PG&E bill. The Customer signs and PG&E countersigns.

The OBF loan agreement must be signed by a representative of the Customer who is authorized to undertake a financial obligation on behalf of their business. The signed loan agreement may be emailed to **OBFProgram@pge.com**.

Once the signed loan agreement is received by PG&E and countersigned, all parties will be notified via email that installation may begin. Measures must be installed by an appropriately license contractor unless the Customer performs a self-install with in-house staff. All equipment must be installed pursuant to the manufacturer's specifications. The Customer is responsible for ensuring that all equipment and installations are in compliance with state and local building codes and ordinances, as well as manufacturers' requirements.

5. Post-Install Review

If the project utilizes the custom savings calculation method, the Contractor submits the following documents to PG&E's CIT/QC&C Department:

- Photos of installed energy efficiency measures and savings calculations
- Itemized customer invoice detailing project costs
- Contractor license certification
- Permit certification
- Post-install tech. review form

Additional information can be found on the Custom Process: Post-Install Project Review.

6. Loan Modification

If the final scope of the project differs from the scope detailed in the original Loan Agreement, a Loan Modification Agreement may be required. For projects where the final loan amount changes by less than $100 and there is no change to the loan term, a loan modification may be requested but will not be required.

Where necessary, the OBF team will send the Loan Modification Agreement to the Customer via email. If the final scope of the project exceeds the maximum loan terms, the OBF team will indicate that a "buy-down" is needed by the Customer to proceed with the OBF loan.

The Loan Modification Agreement will include the payee information previously provided. By signing, the Customer confirms the accuracy of that payee information.
The OBF Loan Modification Agreement must be signed by an authorized representative of the Customer who is authorized to undertake a financial obligation on behalf of their business.

7. Check Issuance

Once the signed Loan Modification Agreement (if applicable) is received by PG&E, the loan will be created and the loan check will be issued to the Customer or the Contractor in accordance with the loan agreement. The check will be mailed to the address specified on the loan agreement. The loan disbursement cannot be split into multiple checks.

Appendix F
Process Steps: On-Bill Financing Payment History Screening

1. New Meter-Based Project Record

The Project Developer creates a new meter-based project record in Energy Insight (EI) and requests one of thefollowing:

- Payment History Screening (PHS)
- 12-months of meter energy usage data
- Both (PHS and 12-months of meter energy usage data)

2. New Financing Application

The OBF Team creates a new financing application in Energy Insight (EI) to perform the PHS. The meter-basedproject record will be updated to reflect the financing application number.

3. Payment History Screening

The PHS may be initiated by either the PG&E Account Representative or the Project Developer. The following information is necessary:

- Anticipated loan amount
- Anticipated rebate amount (if applicable)
- Authorized customer signatory contact information
- Gas or Electric Service ID (found on page 3 of the PG&E Energy Statement)
- Business ID or Social Security Number for PG&E Account Holder
- E-Signature preferred by customer (yes or no)

4. Third-Party Authorization Form

Once the PHS is completed, the OBF Team sends a OneSpan communication to the Customer to sign the Third-Party Authorization form. The OBF Team will copy the Project Developer on the communication.

5. 12-Month Meter Energy Usage Report

If the Project Developer requests 12-months of meter energy usage data, the OBF Team will run the usage report and upload it to the meter-based record in EI.

6. Assigning PG&E Account Representative

The OBF Team assigns the project to its respective PG&E Account Representative.

7. Pre-Install Review

The Project Developer submits the following documents to PG&E's OBF Department:

- Completed OBF Application/Workbook (completed Proposal Information and Payee/Signatory tabs)
- Itemized Customer Quote detailing project costs
- Optional but recommended: energy savings calculations that clearly detail the assumptions used in calculating the Customer's expected energy savings
- Additional documentation may be required based on the project scope

Appendix G
Additional Measures: Battery Storage Supplemental Requirements

1.1. Equipment Requirements

- Only Battery Storage Equipment eligible for the Self Generation Installation Program (SGIP) is eligible for inclusion in the loan. The list of eligible equipment can be seen here at the **SGIP Equipment list.**

- Energy storage projects may be sized up to the Host Customer's previous 12-month annual peak demand (kW)

- For standalone storage, the system must have a minimum discharge capacity equal to or greater than 20% of the customer's annual peak demand, as recorded over the previous 12 months

1.2. Installation Requirements

For Projects that include Battery Storage, the project developer must be on the **approved SGIP developer list**

- The Installer of the proposed SGIP system must have an active license issued by the Contractors State License Board (CSLB) that complies with all current CSLB licensing requirements for the Battery Storage Technology technology that is being installed. This includes the following licenses (Class A, B, C10, C45 (as applicable) contractor licenses).

- All projects require a brief O&M Plan for the Battery Storage Equipment which describes the planned scope of O&M activities, O&M services and training provided by the Project Develoer and training materials. O&M services may be included in the loan amount provided the project cost meets the program requirements.

- A plan for how the Project Developer will provide the discharge data to PG&E should be included in the package provided to the QA. It should included the software being utilized to monitor the equipment and provide a plan for how data will be provided or accessed by PG&E.

- All Projects must comply with all legal requirements including local permitting requirements. Local Permits will be required to receive the Permission To Operate from PG&E.

- **A Permission to Operate (PTO)** from PG&E must be provided by the Developer to the QA in the Post-Install phase. The loan cannot be approved by the QA until this step is completed.

1.3. Data Requirements

- The project developer and the customer are jointly responsible for providing discharge data for the equipment on demand. 15min interval discharge data should be provided to PG&E for a minimum of 3 years after installation. Project Developers will need to provide PG&E access to this data in a secure format.

1.4. QA Review

- The QA provider must review that all requirements for the Battery Storage system have been met and confirm to PG&E that all requirements have been met and include all relevant evidence in the QA approval.

1.5. Post-Installation Inspection

- PG&E reserves the right to perform a site inspection of the equipment prior to loan issuances to ensure that equipment has been installed in compliance with all applicable laws and the permission to operate. A failure of the inspection will require the installer of the equipment to correct or remove the installation of the equipment.

Appendix H
Additional Measures: Electric Vehicle Charging Equipment

1.1 Equipment Requirements

- Equipment must be either:
    - A Level 2 Electric Vehicle Chargers (Charging via AC electrical connection at 208 volts or 240 volts at up to 80 amps.)
    - DC Fast Electric Chargers (Charging via DC electrical connection using off-board AC/DC equipment at a fast rate.)
- Equipment must be certified by a Nationally Recognized Testing Lab (NRTL)
- Only Electric Vehicle (EV) Charging Equipment eligible for Charge Ready EV program is eligible for installation under the OBF program (Approved product lists is administered by Southern California Electric[10]). The list of eligible equipment can be seen here at the **Approved Product List of EV Charging Equipment**.

1.2. Installation Requirements

- For Projects that include Battery Storage, the project developer must be on the **approved SGIP developer list**
    - All projects require a brief O&M Plan which describes the planned scope of O&M activities, O&M services and training provided by the Developer and training materials. O&M services may be included in the loan amount provided the project cost meets the program requirements.
    - The Installer of the proposed EV Charging Infrastructure system must have an active license issued by the Contractors State License Board (CSLB) that complies with all current CSLB licensing and hold a C-10 Contractors license.
    - All Projects must comply with all legal requirements including Article 625 of the California Electrical Code and all local permitting requirements. Local Permits will be required to receive the Permission To Operate from PG&E.
    - The project should include overcurrent protection associated with utility transformers and distribution circuits that feed power to the charging stations and overcurrent protection in the meter pedestal/circuit breaker panel that feeds each of the charging stations.
    - A full site assessment, including the appropriate load calculations to ensure existing infrastructure can accommodate additional EV load, or that

appropriate infrastructure upgrades will be completed.

- Outdoor-mounted EVSE must be rated to be installed for outdoor use.

- Infrastructure must comply with applicable safety performance requirements associated with the type of Transportation Electrification infrastructure being installed.

    - For light-duty vehicles, compliance with the Society of Automotive Engineers (SAE) J-1772 Standard for Level 1 or Level 2 charging. Compliance with CHAdeMO and CCS for DC fast charging would be appropriate evidence of compliance with this requirement.

    - For other types of TE infrastructure, including any nonstandardized EVSE, the following basic connector safety measures will be required:

    - When not connected, the vehicle inlet and the EVSE connector must be designed to prevent direct contact with any live components;

    - The vehicle inlet and EVSE connector shall be free of sharp edges and potentially injurious protrusions;

    - The coupler between the vehicle and the EVSE should avoid or mitigate any potentially hazardous conditions such as fires, electrical shock to users, or other personal injuries.

- A plan for how the Project Developer will provide the discharge data to PG&E should be included in the package provided to the QA. It should included the software being utilized to monitor the equipment and provide a plan for how data will be provided or accessed by PG&E.

- **A Permission to Operate (PTO)** from PG&E must be provided by the Developer to the QA in the Post-Install phase. The loan cannot be approved by the QA until this step is completed.

1.3. Data Requirements

- The project developer and the customer are jointly responsible for providing discharge data for the equipment on demand. 15min interval discharge data should be provided to PG&E for a minimum of 3 years after installation. Project Developers will need to provide PG&E access to this data in a secure format.

- Data must include the following data elements:

    - 15 min interval data for each charging session including starting date and time and ending date and time of the interval.

        - Number of kWh consumed during the session interval

        - Average demand (kW) per session interval
        - Maximum demand (kW) per session interval
    - Maximum rated kW of each port
    - Equipment outages including the date and time of when outages started and ended
    - Number of kWh consumed during the session
    - Average demand (kW) per session
    - Maximum demand (kW) per session
- 5-minute interval data for each port including start and end times
    - Number of kWh consumed during the interval
    - Average demand (kW) per interval
    - Maximum demand (kW) per interval

1.6. QA Review

- The QA provider must review that all requirements for the Electric Vehicle Charging Infrastructure have been met and confirm to PG&E that all requirements have been met and include all relevant evidence in the QA approval.

1.7. Post-Installation Inspection

- PG&E reserves the right to perform a site inspection of the equipment prior to loan issuances to ensure that equipment has been installed in compliance with all applicable laws and the permission to operate. A failure of the inspection will require the installer of the equipment to correct or remove the installation of the equipment.