



2019 California Advanced Homes Program

(2016 Title 24 Code projects – PG&E Service Territory)

Participant Handbook and Program Agreement for Single-family New Construction Projects



*Pacific Gas and
Electric Company®*



We're here to help builders today for tomorrow's environment.

Pacific Gas and Electric Company is helping the building industry smooth the transition to the next energy code, design and develop more environmentally-friendly communities and support the State of California's efforts for new homes.

The California Advanced Homes™ Program highlights best practices in energy efficiency, green building and sustainability, and offers generous financial incentives to help builders and architects create environmentally-friendly, energy-efficient communities for new home buyers.

1 Program Overview

The California Advanced Homes Program serves to encourage residential new construction builders to meet the visionary goals set forth by the California Public Utilities Commission (CPUC) to help builders prepare for future code changes and build homes better-than-code and ahead of the curve.

2 Glossary of Terms

Throughout this document, acronyms of certain terms have been used to simplify instructions.

The following is a list of these terms:

BIG: Build It Green

CABEC: California Association of Building Energy Consultants

CAHP: California Advanced Homes Program

CalCERTS: California Certified Energy Rating & Testing Services (HERS Provider)

CEA: Certified Energy Analyst

CEC: California Energy Commission

CF-1R: Certificate of Compliance

CF-2R: Certificate of Installation, go to www.energy.ca.gov and search for “Residential Manual”

CF-3R: Certificate of Field Verification and Diagnostic Testing, go to www.energy.ca.gov and search for “Residential Manual”

CHEERS: California Home Energy Efficiency Rating Services (HERS Provider)

CIR: CAHP Incentive Report

CMFNH: California Multifamily New Homes (PG&E Program)

CPUC: California Public Utilities Commission

DOE ZER: Department of Energy Zero-energy ready program

EDR: Energy Design Rating

HEMS: Home Energy Management Systems

HERS: Home Energy Rating System

HPA: High Performance Attics

HPF: High Performance Fenestration

HPW: High Performance Walls

IOU: Investor-owned Utility

IRF: Incentive Request Form

MECH-1-C: Mechanical Field Inspection Energy Checklist, usually for high-rise projects

MECH-INST: Mechanical Installation Certificate, usually for high-rise projects

MF: Multifamily

MFHR: Multifamily High-rise

MFLR: Multifamily Low-rise

NFRC: National Fenestration Rating Council

PERF-1: Performance Certificate of Compliance

PG&E: Pacific Gas and Electric Company

QII: Quality Insulation Installation

Rater: Inspector certified by a CEC-approved HERS provider to provide third-party verification for Title 24 measures

RNC: Residential New Construction

SF: Single-family

SHGC: Solar Heat Gain Coefficient

3 Introduction

CAHP is offered through a diverse portfolio of programs by PG&E. Participation is open to single-family, low-rise and high-rise multifamily residential new construction built in a participating PG&E service area. The application for all projects is the same, though the participant handbook for multifamily new construction – for both, low-rise and high projects is available separately.

CAHP is a comprehensive residential new construction concept with a cross-cutting focus on sustainable design and construction, energy efficiency, demand reduction and emerging technologies. Through a combination of education, design assistance and financial support, CAHP works with building and related industries to exceed compliance with the California Code of Regulations, Title 24, Part 6, 2016 Building Energy Efficiency Standards for Residential and Nonresidential Buildings (Standards), to prepare builders for changes to the Standards and to create future pathways beyond compliance and traditional energy savings objectives.

CAHP is designed for the performance-based approach for compliance. Compliance with the 2016 Title 24 Standards must be demonstrated through the performance method utilizing approved California Energy Commission (CEC) compliance software. The documents must be created and signed by a 2016 Title 24 code Certified Energy Analyst (CEA). Compliance must be demonstrated for each building as a whole and may not group unrelated or detached buildings together.

4 General Requirements and Eligibility

The CAHP is funded under the auspices of the CPUC. Funding, incentive levels, and program requirements may be revised during the program cycle.

4.1 Program Requirements

- Incentives are only available to the participating builder for commodities provided by PG&E.
- Projects that are applying for incentives must submit an application package, in compliance with Section 4.2, prior to any HERS testing beginning or drywall installation. All participating units must be new construction dwellings and modeled accordingly.
- Applicant agrees to not accept duplicate funding from multiple utility-sponsored energy-efficiency programs for the same measures. Measures that save multiple fuel types can accept funding for EACH fuel type from ONE utility.
- Participating projects must meet minimum program requirements on a “lot-by-lot” basis rather than project level, before HERS testing or dry wall installation begins. Approved plans will be evaluated for each orientation individually, but only the orientation(s) that meet the program requirements will receive incentive payments. This is so that models that may have some orientations failing to comply can still meet the program requirements and earn incentives for the orientations that qualify. All orientations do not need to qualify to meet the program requirements.
- For verification purposes, all projects must contract with a certified HERS rater, even if HERS measures are not required. The HERS rater will be required to enter project verifications into the HERS registry for the program. This includes verifications of non-HERS measures as applied in the project’s specified registry. The CIR should be used for verification along with the CF-1R. The HERS rater is responsible for field verifying all measures used for program compliance.
- Incentive payments are available only to owners, builders or developers named on the Application.
- Funds are limited and will be reserved on a first-come, first-served basis to projects that meet the program requirements. No payments will be made for any changes made to the unit that may affect compliance without prior written approval from your utility representative.
- Contact TRC Energy Services for additional program details and funding availability prior to submitting applications.
- The funding for this program will expire December 31, 2019 or sooner. PG&E will not accept applications after October 15, 2019. Application is valid for 36 months from the date of utility acceptance.

- In accordance with California Public Utilities Code section 399.4(b), the customer (or their contractor) must provide the Utility Proof of Permit closure before the Utility will pay any rebate or incentive for the purchase or installation of central air-conditioning, heat pumps, or related fans.
- Homes that enroll in the CAHP as all-electric (with no natural gas available) will be responsible for the full cost of installation of the natural gas service lines, should they decide to add natural gas post enrollment.

Important eligibility update for 2016 code projects! Starting July 1st, 2019, any lots submitted for the 2016 Title 24 code program that show negative kWh savings will not be eligible to enroll.

Additionally, projects with lots that comply with the 2016 code program requirements must submit their letter of intent, if any, before July 31st, 2019 and a complete application package to TRC no later than October 1st, 2019. After this date, the program will no longer accept applications for projects permitting under the 2016 code. Incentive reservations are valid for up to 36 months from the date of utility acceptance.

Important eligibility update for currently enrolled 2013 code projects! Any lots that show negative kWh or Therm savings, on a rollover or adjustment application received after June 15, 2017, will not be eligible for incentives.

- Rollovers: If you have a project with lots that need to enroll in the 2013 code program, a complete rollover application package must be received for any of the lots showing negative savings no later than June 15, 2017. After this date, lots that show negative savings will not be allowed to enroll in the program.
- Adjustments: Any adjustments application received after June 15, 2017 that results in, or involves plans which show, negative savings will no longer be eligible for incentives.

Enrolled lots that do not require an adjustment or a rollover application, will not lose their reserved incentives. At this time, this update does not apply to projects submitting under the 2016 energy code.

4.2 Program Process Overview

Contact your TRC representative prior to submitting the Application and prior to construction to ensure that you have the most current CAHP information. **Programs and/or incentive levels may be changed or cancelled without notice.** A representative will guide you through the entire process.

Important:

- Read all CAHP instructions, requirements, and Terms and Conditions contained herein. For additional program information, speak with your TRC representative.
 - The Applicant listed on the Application is responsible for submitting documentation that verifies compliance with CEC requirements to the utility's satisfaction. However, a third party may complete documentation on behalf of the Applicant.
 - In cases where measures and construction elements may vary from default or minimum efficiency values, CAHP may require supporting specifications sheets.
 - The program may provide design assistance within reason for viable projects. The program **will not** provide funding for Title 24 documentation authors to reconstruct models or plans in the event of needed corrections.
- 1 Collect the following to submit to your representative for each plan type within the project:
 - A completed, original Residential New Construction Application postmarked or received by no later than December 31, 2019, or sooner. Complete one application per project.
 - Title 24 Certificate of Compliance authored and signed by a 2016 Title 24 code CEA as well as the CAHP Incentive Calculator.
 - **Note:** Projects will require a copy of the final Title 24 CF-1R for each plan type.
 - The electronic input file for correct version of the Title 24 energy compliance software for each model as constructed.

You must submit by email to your TRC representative.

- A complete set of construction plans including:
 - Architectural plans including floor plans, elevations and sections.
 - Subdivision lot map with North arrow for production home projects or a site plan with North arrow for custom homes.
 - A copy of the tract map (tentative or recorded), construction schedule with phases, lots and addresses.
 - Equipment and materials documentation:
 - Windows, glazed doors, skylights—specification sheet with manufacturer’s name that demonstrates U-factor and Solar Heat Gain Coefficient (SHGC).
 - Space heating equipment—specification sheet with manufacturer’s name/model number and efficiency rating for each unit.
 - Air conditioner—specification sheet with manufacturer’s name/model numbers for condenser/coil match or AHRI reference number for each proposed unit (www.ahridirectory.org).
 - Water heater—specification sheet with manufacturer’s name/model number and efficiency rating. If installing a Solar Water Heater, a CF-SR is required.
 - Applicant contracts with a 2016 Title 24 Code Certified Energy Plans Analyst (CEA) to prepare the Title 24 documentation and secure a Home Energy Rating System (HERS) rater. HERS Rater shares project with TRC in the HERS Registry.
 - PG&E service territory verification – will serve letter, account statement, service application, or any documentation issued by PG&E verifying the project address is or will be receiving Gas and/or Electric service from the utility.
 - Complete the CAHP Enrollment Survey
 - Include the applicant/payee W-9 form that corresponds with the Tax ID/SSN listed on the application
- 2 Sign the Application and submit the application package to your TRC representative.
 - Submit projects as a **complete package**.
 - CAHP will return all incomplete application packages to the applicant.
 - 3 Upon completion of plan check, the project team will receive a letter of acceptance and an Incentive Request Form (IRF).
 - 4 Once you receive written approval from the utility, move to section 4.2.1.

4.2.1 Construction and Inspection Phase

- 1 Ensure all applicable CF-2R forms are uploaded to the chosen HERS Registry for each lot.
 - Before any inspections are uploaded to the HERS registry, notify your utility of any changes that will affect total energy use of the home, such as added or relocated windows, addition of “bonus” rooms or other areas not shown on the Title 24 submittal, changes in proposed HVAC or water heating equipment and/or changes to building insulation. These changes will need to go through an adjustment application. Changes made without notification may forfeit incentive payment.
- 2 If applicable, the appropriate CF-3R HERS rating certificates for each home upon completion of field verification needs to be uploaded to the appropriate registry; certificates must be submitted for the tested lot according to CEC HERS sampling protocols. Be aware that the HERS rater will be inspecting to ensure that all required measures are implemented. Projects with “failures” are subject to CEC re-testing procedures and related fees at applicant’s expense. If the measure fails the re-test, the lot will need to submit an adjustment application.

4.2.2 Verification by Utility

Prior to paying incentives, PG&E will review all documents to ensure CAHP compliance. The utility retains final authority to determine CAHP compliance and eligibility for incentives. Email all correspondence to your TRC representative.

- To request incentives, refer to the Incentive Request Process Checklist in appendix.

4.3 General Building Requirements

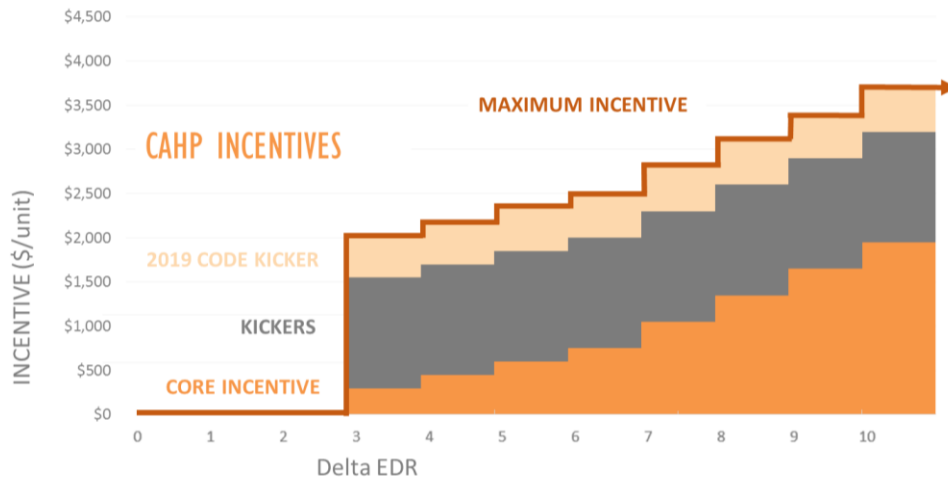
To qualify for the incentive payment, each home covered by the Application must meet the following criteria:

- A new construction project/home receiving electric distribution and/or natural gas distribution service from PG&E. If the home only receives gas or electricity from PG&E, it is only eligible for incentives related to that service. Seek the guidance of your TRC representative to ensure incentives are maximized for both gas and electricity. Homes served by propane will not receive an incentive for propane savings.
- A single-family detached dwelling or two-dwelling building of any number of stories, R-3 occupancy, and on PG&E residential rates. Structures detached from the primary residence that are residential living areas (e.g., casitas) must also meet all CAHP criteria but are not eligible for a separate incentive.
- Permitted under the 2016 Energy Efficiency Standards Residential Compliance Manual (Title 24) effective January 1, 2017 and achieving compliance using a CEC-approved computer method. Projects must meet, at a minimum, CEC and CAHP installation and field verification requirements, as documented by a certified HERS Rater.
- Some modular manufactured housing may qualify when regulated by Title 24 standards (not HUD – U.S. Department of Housing and Urban Development). Please contact your TRC representative for verification.
- The following defines the **dwelling unit types that qualify** for program participation.
 - **Detached:** A single or multiple-story structure consisting of one unit not attached to another building (except a garage or casita). This may be either a custom home or part of a larger project consisting of multiple lots.
 - **Duplex:** A structure consisting of two dwelling units. The duplex can be a single structure or part of a larger project consisting of multiple structures and units but must be modeled as two separate units.
 - **Townhome:** A single-family dwelling unit constructed in a group of three or more attached units in which each unit extends from the foundation to roof and with open space on at least 2 sides. Must be modeled as individual separate units.
- The following **facilities do not** qualify for participation:

<ul style="list-style-type: none"> ○ Remodels ○ Additions ○ Manufactured housing ○ Residential care facilities 	<ul style="list-style-type: none"> ○ Hotels ○ Motels ○ Dormitories ○ Community facilities
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PG&E offers a broad portfolio of other programs that may provide support to these facilities. Whole-house retrofits may qualify, please contact your TRC representative. For multifamily information please refer to the [CMFNH handbook](#).

5 Financial Incentives



5.1 Energy Design Rating (EDR)

The EDR is a home energy index that uses time dependent valuation (TDV) of energy including all end uses in a home to provide a whole-house efficiency metric and can be modeled in CBECC-Res 2016 & Energy Pro 7. An EDR closer to zero implies better performance and higher incentives.

There are multiple EDRs available as explained in the table below. The eligibility and incentive metric for the CAHP single-family program is a “Delta-EDR” which is the difference between the EDR of Standard Efficiency and the EDR of Proposed Efficiency. The Delta EDR compares a home’s energy use to what that same home’s energy use would be if built to the prescriptive path. The program also allows bonus performance embedded “Point Kickers” that can add to the Delta EDR points for incentive calculation.

Standard Efficiency EDR	Proposed Efficiency EDR	Proposed PV + Battery EDR	Final Proposed EDR	Delta EDR
EDR if the home were designed using the prescriptive path.	EDR as designed with performance tradeoffs, not taking solar PV into account.	EDR for the Solar PV system by itself	Final EDR for homes as designed, taking Solar PV (if installed) into account	EDR of Standard Efficiency – EDR of Proposed Efficiency (+ Point Kickers if any)

5.2 Incentive Eligibility

The minimum requirement for entry in to the CAHP single-family program is a Delta EDR score of 3 for all climate zones (CZ 1-16). Incentives are specific to the plan and orientation of each lot.

INCENTIVE STRUCTURE	INLAND	COASTAL
Entry EDR score		3
Entry incentive		\$300
Per-point incentive from Delta EDR 3-6		\$150
Per-point incentive from Delta EDR 7		\$300
PERFORMANCE EMBEDDED KICKERS	INLAND	COASTAL
Home Energy Management System (HEMS)	0.5 EDR pt	1 EDR pt
100% LED	0.5 EDR pt	1 EDR pt

A Delta EDR of 3 ensures a minimum incentive value of \$300. The incentive amount increases incrementally with a point increase in the Delta EDR. For each point up-to a Delta EDR of 6, the incentive increases by \$150 and a \$300 increase for each point

thereafter. Incentives can now be estimated using the CAHP 2016 Code Incentive Calculator (found at <http://cahp-pge.com/resource/apply/>).

The EDR required for incentive calculation can be generated by using the most current 2016 Title 24 energy modeling software programs CBECC-RES 2016 and Energy Pro 7.

5.2.1 CBECC-Res 2016

To generate EDR in CBECC-RES 2016

1. Open the project in CBECC-Res 2016 and open the Project tab at the top of the building tree
2. Under the Energy Design Rating tab, check the 'Detailed Energy Design Rating Inputs'
3. Run the simulation
4. Look for EDR tab in the Review Analysis Results box, or the second or third page of the CF-1R.

5.2.2 Energy Pro 7

To generate EDR in Energy Pro 7

1. Open the project in Energy Pro7 and run the simulation
2. The EDR results show up on the Res T24 Performance Table, or the second or third page of the CF-1R.

Note: The 'EDR of Proposed Efficiency' in the Res T24 Performance Table shows the Final Proposed EDR with PV credit. If the model includes PV, do not refer to the Res T24 performance table, but look for EDR of Standard Efficiency and EDR of Proposed Efficiency in the second or third page of the CF1-R.

5.3 Additional Financial Incentives

The CAHP offers additional incentives to projects that include one or more of the below project elements. CAHP offers four categories of additional incentives: *point kickers*, *cash bonus kickers*, *hybrid kickers* and *2019 code kickers*. CAHP uses different point kicker values for different climate zones. **NOTE:** Multiple kickers can be claimed on a project.

PROGRAM KICKERS	
Points Kickers:	
100% LED lighting -----	0.5 Inland/1 Coastal EDR pt
HEMS-----	0.5 Inland/1 Coastal EDR pt
Cash Bonus Kickers*:	
DOE Zero Energy Ready Home -----	\$400 Cash bonus
Balanced IAQ ventilation -----	\$100 Cash Bonus
Hybrid Kickers:	
Quality Insulation Installation (QII) -	\$400 Cash Bonus
High Performance Fenestration -----	\$200 Cash Bonus
High Performance Attic/DCS -----	\$200 Cash Bonus
High R-Value Walls -----	\$200 Cash Bonus
Reduced Building Air Leakage (≤ 1 ACH50) -	\$300 Cash Bonus
Reduced Building Air Leakage (≤ 2 ACH50) -	\$200 Cash Bonus
Reduced Building Air Leakage (≤ 3 ACH50) -	\$150 Cash Bonus
Reduced Building Air Leakage (≤ 4 ACH50) -	\$100 Cash Bonus
Whole House Fan -----	\$100 Cash bonus
2019 Code Kickers:	
2019 Code Ready -----	\$250 Cash Bonus
2019 Code Home -----	\$500 Cash Bonus

5.3.1 Point Kickers:

These are energy savings that are not able to be modeled that are awarded with EDR point reductions and are dependent on the climate zone that the home is being built in. Due to more extreme climate, inland homes are more intensive in terms of heating and cooling energy usage which makes it easier to achieve higher Delta EDRs. Climate Zones 1, 2 and 9 through 15 are categorized as Inland Climate Zones, whereas Climate Zones 3 through 8, and 16 fall under the Coastal Climate Zone category.

Coastal	Inland
Climate Zones 3-8 & 16	Climate Zones 1,2,9-15

- **100% LED Lighting (0.5 Inland/1.0 Coastal):** Install 100% LED Lighting. All hard wired lighting must be LED and meet the requirements of JA8-2016.
- **Home Energy Management Systems (HEMS) (0.5 Inland/1.0 Coastal):** The HEMS must track multiple end uses within the home including all HVAC equipment and all plug loads. HEMS must also provide a method for the user to access energy use information/history via a “user interface.” The system must also allow for control/programming of the

system, including an override/off capability. The user interface may be embedded (i.e. built into the device that collects energy feedback), autonomous (i.e. an independent wall mounted or portable display), or distributed (i.e. information presented via existing channels, such as a utility bill, website, computer software or phone) and should be reasonably intuitive. The HEMS must be Demand Response (DR) capable (program participation is not required).

Another path to qualifying for this kicker is for the home to be wired such that no plug load, lighting load, or appliances (including but not limited to: dishwasher, dryer, refrigerator, clothes washer, oven, whole house fan, furnace/heat pump, water heater, sump pumps, etc.) can share a common circuit. This means that any one circuit can only serve either a lighting load, a plug load, or a single major appliance (ceiling fans with lighting should be counted as a lighting load).

5.3.2 Cash Bonus Kickers*

The following kickers are for green or non-modeled measures that do not lead to direct energy reductions. **These kickers cannot be claimed together.** If a home implements both these measures a \$400 cash kicker will be awarded when both are installed.

- **Balanced IAQ (\$100):** The home is installing a balanced IAQ ventilation system
- **DOE Zero-Energy Ready (\$400):** The home is a certified Department of Energy Zero Energy Ready Home.

5.3.3 Hybrid Kickers (Modeled Savings + Cash Bonus):

These kickers are for measures that have performance embedded savings *and* a cash kicker to emphasize the importance of the measures:

- **Quality Insulation Installation (\$400):** Insulation installation should be as per methods detailed in the Residential Appendix RA3.5 and must be inspected by a HERS rater per methods detailed in the Residential Appendix RA3.5. When compliance credit is taken for QII, a third-party HERS Rater is required to verify the integrity of the installed insulation. The installer shall provide evidence with compliance documentation that all insulation specified is installed to meet specified R-values and assembly U-factors.
- **High Performance Fenestration (\$200):** All windows must have a U-Factor ≤ 0.24 (excludes doors, sliding glass doors, and skylights)
- **High Performance Attics (\$200):** The home is constructed with a high performance attic in compliance with the prescriptive requirements as defined in the 2016 Residential Compliance Manual (Title 24, Part 6) or a totally sealed, unventilated attic.
- **High Performance Walls (\$200):** The home is constructed with high performance walls in compliance with the prescriptive requirements as defined in the 2016 Residential Compliance Manual (Title 24, Part 6).
- **Reduced Building Air Leakage (\$100-\$300):** An energy credit is allowed through the performance approach when the rate of envelope air leakage of the building is less than the air leakage rate assumed for the standard design building (5 ACH50). A third-party HERS Rater shall verify the air leakage rate as per the Residential Appendix RA3.8. The incentive is tiered for reduced air leakage, starting at \$100 for ≤ 4 ACH50, \$150 for ≤ 3 ACH50, \$200 for ≤ 2 ACH50 and \$300 for ≤ 1 ACH50.
- **Whole House Fans (\$100):** The home is constructed with a whole house fan in compliance with the prescriptive requirements as defined in the 2016 Residential Compliance Manual (Title 24, Part 6).

5.3.4 2019 Code Kickers:

These are cash bonuses for 2019 code ready homes and 2019 code homes:

- **2019 Code Ready (\$250):** The home meets the Delta EDR necessary for program eligibility. Solar is not being installed but is designed with a solar ready zone, and a ≤ 3 kW PV system (when modeled) would lead to a site kWh use of 0.

- **2019 Code Home (\$500):** The home meets the Delta EDR necessary for program eligibility. Solar is being installed and site kWh use is 0.

6 Terms and Conditions

I, the Applicant, agree to the following terms and conditions (“the Agreement”):

1. I meet the CAHP eligibility requirements as stated in the appropriate attachment(s) included with the Application.
2. The information I have supplied on the application and attachment(s) is true, correct and complete.
3. I have read and understand the terms and conditions of the Agreement and on the appropriate attachments and agree to abide by the rules, requirements and terms set forth on the Agreement and all attachments.
4. If the Agreement is terminated for any reason, PG&E shall not be liable to the Applicant for damages or compensation of any kind.
5. PG&E reserves the right to determine eligibility for the Incentive.
6. PG&E makes no representation or warranty, and assumes no liability with respect to quality, safety, performance, or other aspect of any design, system or appliance installed pursuant to the agreement, and expressly disclaims any such representation, warranty or liability. Applicant agrees to indemnify utility, its affiliates, subsidiaries, parent company, officers, directors, agents and employees against all loss, damage, expense, fees, costs and liability arising from any measures installed.
7. Both funding and the conditions of the incentive are subject to the jurisdiction of the California Public Utilities Commission (CPUC) and shall be subject to such changes or modifications as the CPUC may, from time to time, direct in the exercise of its jurisdiction. If there are changes in the estimated incentive, the utility will endeavor, but cannot guarantee, to provide a reasonable period of time before changes go into effect.
8. I understand that if the incentive is modified in any way or terminated by order of any government entity, then the Agreement shall be revised or terminated consistent with that order.
9. The utility may assign the Agreement, in whole or in part, or its rights and obligations hereunder, directly or indirectly, by operation of law or otherwise, without the Applicant’s prior written consent, provided the utility remains obligated for payments incurred prior to the assignment. The Applicant may not assign this Application, in whole or in part, or its rights and obligations hereunder, directly or indirectly, by operation of law or otherwise without the prior written consent of the utility.
10. I understand the incentive requires inspections and measurements of the performance of the measures. Therefore, I agree to provide access to the project site for these purposes to the Utility and/or its agents or assigns and the CPUC and/or its agents or assigns.
11. I agree to release PG&E, its affiliates, parent company, officers, managers, directors, agents and employees from all claims, demands, losses, damages, costs, expenses and liability (legal, contractual, or otherwise), which arise from or are in any way connected with any: (1) injury to or death of persons, including but not limited to employees of the utility, customer, or any third party; (2) injury to property or other interests of the utility, Applicant or any third party; (3) violation of local, state, or federal common law, statute, or regulation, including but not limited to environmental laws or regulations; (4) energy savings shortfall; so long as such injury, violation, or shortfall (as set forth in (1)—(4) above) arises from or is in any way connected with the Project, including any third party’s performance of or failure to perform the Project, however caused, regardless of any strict liability or negligence of utility, its officers, managers or employees.



12. Energy savings for which incentives are paid cannot exceed the actual usage provided by PG&E. Nonutility supply, such as cogeneration or deliveries from another commodity supplier, does not qualify as usage from utility (with the exception of direct-access customers or customers paying departing load fees for which the utility collects PPP or PGC charges).
13. Funding approved for this incentive is limited and will be paid on a first-come, first-served basis to qualified applicants. Funds will only be reserved upon PG&E's execution of the Agreement. This incentive offer is subject to the availability of authorized funds.
14. Installation of any energy-efficient equipment required for compliance with 2016 Title 24 will not qualify for incentives. Energy efficiency improvements beyond 2016 Title 24 requirements or a generally accepted industry standard, where applicable, may be eligible for incentives.
15. Specific restrictions may apply to each energy- efficiency system, as outlined in the instructions and attached project forms.
16. To be eligible for incentives, I agree that I will not apply for or receive incentives offered by local or state entities or other utilities for measures and associated fuel savings covered under this Agreement.
17. PG&E may suspend or terminate the Agreement, without cause, upon written notice to me.
18. I understand the following tax liability provisions: PG&E will report incentives greater than \$600 as income to me on IRS form 1099. PG&E recommends that I consult a tax adviser concerning the taxability of incentives. PG&E is not responsible for any taxes that may be imposed due to incentive payments.
19. I understand once an acknowledgement receipt is issued for this Application under a Customized Energy Efficiency Program, the Application will be processed under that program. If the Application is withdrawn at any time in the process, I may only resubmit an Application for the same project in the same program, under specific circumstances approved by the program manager.
20. I understand the PG&E may use the services of external consultant(s) for plan review and/or other functions related to the submitted projects. I hereby authorize PG&E to share any of the submitted project information with the consultants, expressly for this purpose.
21. I understand that program timing, rules and requirements may be modified by PG&E in their territory, or by the program as a whole, at any time.
22. To afford an even distribution of funds for projects under this program, owners, builders and developers may be required to demonstrate the viability of the project for which they are applying. Following the approval of the Agreement and within a three (3) month period, the applicant may be asked to supply documents that reflect a commitment to timely construction.

The following documents may be required:

- Grading permit
- Building permit
- Approved construction schedule from the governing entity
- Financing and other pertinent documents

If, after review of these documents, PG&E determines that the project is not progressing, the Agreement may be cancelled. If these documents are not available, the applicant must demonstrate that the project is in the process of obtaining construction permits. If this Agreement is cancelled, the applicant may reapply at a later date. Applications will be accepted and estimated incentives will be committed based upon the funds available at the time of reapplication.

7 New Solar Homes Partnership

The New Solar Homes Partnership (NSHP) is part of the comprehensive statewide solar program, known as the California Solar Initiative.

For additional information, please go to: www.gosolarcalifornia.ca.gov

8 For More Information

Further information regarding the CAHP and participation can be obtained from a TRC representative. The representative can work with the design team to determine which program path is best suited to the project and how to optimize its energy efficiency. Additionally, PG&E offers design assistance for project review and training classes.

Contact Information

Pacific Gas and Electric Company

Phone: 866-352-7457 (CMFNH Multifamily/CAHP Single-family)

Email: cahp@trccompanies.com Web: www.cahp-pge.com Web: www.cmfnh.com

9 Calculation Instructions

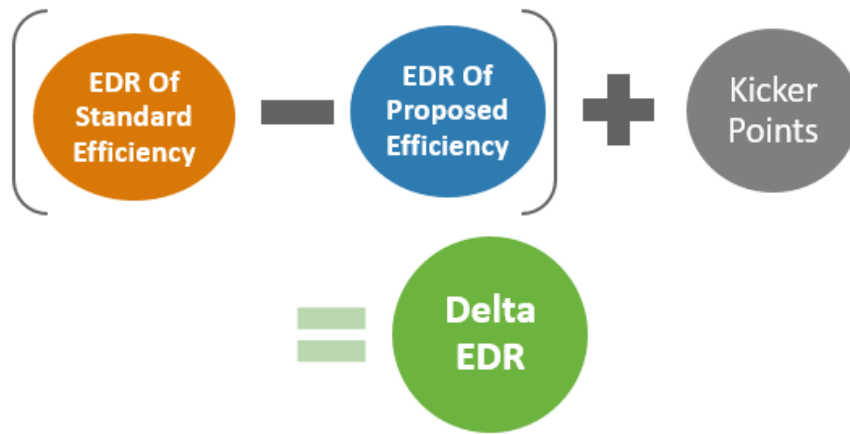
EXAMPLE

Use the following tables to determine incentives per lot. The example below explains how Delta EDR and incentives can be estimated for inland and coastal climate zones for a similar home:

Case I: A single-family (SF) home in an Inland Climate Zone with a Standard Efficiency (formerly Design) EDR score of 45.2, Proposed Efficiency (formerly Design) EDR score of 37.8 which qualifies for a 100% LED Lighting point kicker

Case II: A single-family (SF) home in a Coastal Climate Zone with a Standard Efficiency (formerly Design) EDR score of 45.2, Proposed Efficiency (formerly Design) EDR score of 37.8 which qualifies for a 100% LED Lighting point kicker

How the DELTA EDR is calculated:



Example:

<p>EDR of Standard Efficiency → 45.2</p> <p>— EDR of Proposed Efficiency → 37.8</p> <p>+ 100 % LED Lighting → 1 Point</p> <hr style="border: 1px solid green;"/> <p style="text-align: center;">Delta EDR = 8.4</p>	<p>EDR of Standard Efficiency → 45.2</p> <p>— EDR of Proposed Efficiency → 37.8</p> <p>+ 100 % LED Lighting → 0.5 Point</p> <hr style="border: 1px solid green;"/> <p style="text-align: center;">Delta EDR = 7.9</p>
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Case	Climate Zone Region	Plan Name	EDR of Standard Efficiency	EDR of Proposed Efficiency	Point Kickers	Delta EDR	Incentives Per Lot	Est.# of Lots using plan	Total Est. Incentive
I	Inland	Toms_Vineyard_Plan_B	44.4	42.5	0.5	7.9	\$1050	x 4	\$4,200
II	Coastal	Toms_Vineyard_Plan_B	44.4	42.5	1	8.4	\$1350	x 4	\$5,400

Incentive Structure:

Delta EDR	Base Incentive
3	\$300
4	\$450
5	\$600
6	\$750
7	\$1,050
8	\$1,350
9	\$1,650
10	\$1,950
11	\$2,250
12	\$2,550
13	\$2,850
14	\$3,150
15	\$3,450
16	\$3,750
17	\$4,050
18	\$4,350
19	\$4,650
20	\$4,950
21	\$5,250
22	\$5,550
23	\$5,850
24	\$6,150
25	\$6,450
26	\$6,750
27	\$7,050
28	\$7,350
29	\$7,650
30	\$7,950

Appendix 1: 2016 Code CAHP Incentive Agreement and Checklist

Project # (Internal Use Only) _____

**California Residential New Construction
Single Family & Multifamily Incentive Application**

This application applies to the following programs: CAHP Single Family and CMFNH Multifamily

APPLICANT/PAYEE INFORMATION

Applicant/Payee Name:		
Applicant Federal Tax ID (or Social Security) #	<input type="checkbox"/> Corporation	<input type="checkbox"/> Partnership <input type="checkbox"/> Individual
Payee Address:	Payee City:	Payee ZIP:

PROJECT INFORMATION

Project Name:	Climate Zone:		
Project Address:	Project City:	Project ZIP:	
Project Contact:	Contact Email:		
Permitting Agency:	Permit Date (or estimated permit date):		
Start Date:	Estimated Completion Date:		
HERS Provider (i.e. HERS Registry):	HERS Company:		
HERS Rater:	HERS Rater Email:		
Energy Consultant:	Energy Consultant Email:		
Please select housing type: Single Family (SF): <input type="checkbox"/> Custom Home <input type="checkbox"/> Production Home <input type="checkbox"/> Duplexes <input type="checkbox"/> Townhome Multifamily (MF): <input type="checkbox"/> Apartment <input type="checkbox"/> Condo <input type="checkbox"/> Single Resident Occupancy (SRO)			
Number of Buildings:	Low Rise (1-3 Stories): # Buildings _____ # Units _____	<input type="checkbox"/> For Sale	<input type="checkbox"/> Market Rate
	High Rise (4+ Stories): # Buildings _____ # Units _____	<input type="checkbox"/> For Rent	<input type="checkbox"/> Affordable Housing
What utility is providing electricity to the project? <input type="checkbox"/>	What utility is providing gas to the project?		
PG&E <input type="checkbox"/> SCE <input type="checkbox"/> SDG&E <input type="checkbox"/> SMUD <input type="checkbox"/> REU <input type="checkbox"/> Other: _____	<input type="checkbox"/> PG&E <input type="checkbox"/> SCG <input type="checkbox"/> SDG&E <input type="checkbox"/> Other: _____		
Is propane being provided to the project? <input type="checkbox"/> Yes <input type="checkbox"/> No	Is this an all-electric project? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Total # of Plan Types in Project:	Total # of Lots/Units in Project:		
Other Program Participation: <input type="checkbox"/> NSHP <input type="checkbox"/> GreenPoint Rated <input type="checkbox"/> TCAC <input type="checkbox"/> ENERGY STAR <input type="checkbox"/> LEED <input type="checkbox"/> DOE-ZERH <input type="checkbox"/> Other:			

GENERAL INSTRUCTIONS AND REQUIREMENTS

1. Funds are limited and will be reserved on a first-come, first-served basis to projects that meet the Programs' requirements. No payments will be made for any energy-efficient upgrades installed without prior written approval from your local utility. No projects will be accepted after drywall has been installed in enrolled units.
2. Review the appropriate Participant Handbook and Terms & Conditions.
3. Complete one form per project. Incentive payments are available only to owners, builders or developers named on this Incentive Application unless your IOU allows the submission of a Payment Release Form. Please ask your IOU for details.

APPLICANT AGREEMENT

I, the undersigned, agree that:

1. I have read and understand and agree to abide to the programs' rules, requirements and terms and conditions set forth in this Application and in the respective Handbooks.
2. The information that I have supplied on this Application is true, correct and complete.
3. This project is not receiving duplicate funding from multiple utility sponsored energy efficiency programs for the same measures and associated fuels.
4. I agree to permit the Utility to discuss all aspects of this project with my Energy Consultant and/or HERS Rater.
5. I understand that this application is valid for 36 months from date of utility acceptance.

Company Name _____

Applicant Name (Print) _____ Title _____

Electronic Signature _____ Date Signed _____

I understand checking this box constitutes a legal signature confirming my acknowledgment and agreement to the above terms.

Please note that in addition to the checklist provided in the handbook, we are also requiring that you submit a **PG&E service territory verification**, share the project with **TRC Energy Services on the appropriate HERS registry**, and complete the **CAHP enrollment survey**. Below is a list of items required at application:

1. **Submit a Letter of Interest (optional):**
 - A [Letter of Interest \(LOI\)](#) may be submitted to express the applicant's intent to participate in the CAHP and that **a complete CAHP application package will follow within 90 calendar days of LOI submittal**. If applicant complies with LOI program timelines, the eligibility date for the project will be the date the signed LOI is received.
 - Should the applicant fail to comply with the LOI timelines, the project's eligibility date will be the date a complete application package is received. Any lots that have sheetrock or drywall installed, or have had HERS testing performed prior to the project eligibility date will be ineligible to receive CAHP incentives.
2. **A complete set of construction plans which contain the following:**
 - Architectural, Electrical, Mechanical, and Plumbing (as applicable or available)
 - A window and door schedule showing sizes and includes ALL skylights (if not shown on the floor plan)
 - Elevation, wall, roof, floor construction assemblies
 - Floor finish schedule (if CF-1R shows High Mass Design)
 - Plans must be submitted electronically as a PDF file
 - PLAN SIZE MUST BE FULL OR HALF SIZE
3. **A list of lots and addresses:**
 - The orientation for each lot MUST be listed next to the address.
 - Be aware that any lots that have begun HERS testing or that have already installed drywall PRIOR TO the project's eligibility date will NOT be eligible to receive incentives. Please be sure to remove any such lots from your application and lot list.
4. **A site plan with a North arrow**
5. **PG&E service territory verification:**
 - This can be a 'will serve letter', an 'account statement', a service application, or any documentation issued by PG&E verifying that the project address is or will be receiving Gas and/or Electric service from the utility.
6. **Title 24 forms and files:**
 - PDF copy of the Certificate of Compliance Form (CF-1R) signed by a Certified Energy Analyst (CEA) and CAHP Incentive Calculator per plan.
 - If any kickers are being taken, the CAHP Incentive Calculator must be completed for each plan the kicker is being applied to. If we do not receive the incentive calculator for a plan, the plan will be enrolled without any kickers.
 - Electronic input files that generated the signed Certificate of Compliance Form (preferably via e-mail). This file will have file extension ".bld" for EnergyPro or ".RIBD" for CBECC-Res. Please note – only plans on the application should be submitted and uploaded.
7. **Equipment and materials documentation:**
 - Windows, glazed doors, skylights—specification sheet with manufacturer's name that demonstrates U-factor and Solar Heat Gain Coefficient (SHGC).
 - Space heating equipment—specification sheet with manufacturer's name/model number and efficiency rating for each unit.
 - Air conditioner—specification sheet with manufacturer's name/model numbers for condenser/coil match or AHRI reference number for each proposed unit (www.ahridirectory.org).

- Water heater—specification sheet with manufacturer’s name/model number and efficiency rating. If installing a Solar Water Heater, a CF-SR is required.

8. HERS registry sharing by your HERS rater:

- For **CaICERTS**:
 - Please share the project with “TRC Energy Services” in the registry.
 - If we do not appear in your list of Energy Consultants you may need to add us.
 - If you or your rater need registry sharing instructions please contact us immediately at RNC@TRCcompanies.com and we will provide detailed instructions.
- For **CHEERS**:
 - Please add “TRC Solutions” to the project member team.
 - If the project is a custom home, let us know who is listed as the “builder”.

9. Complete the CAHP Enrollment Survey:

- Please complete the CAHP Enrollment Survey located [HERE](#). The survey is available to you now and may be accessed anytime. The TRC ID will be assigned to this project by the Program Assistant once an application package submission has been received. Contact us at RNC@TRCcompanies.com if you are unsure what this number is.
- This survey must be completed once per program cycle by the home owner or builder.

10. Submit a W-9 Form:

- Please submit a W-9 Form for the Tax ID or Social Security Number listed on your application.
- This should be completed by the payee.

If applicable to your application:

- Roofing material—specification sheet which shows emissivity and reflectivity value of Product (if taking credit for a cool roof).
- Specification sheets for any special features as included in your Title 24 calculations report.

Once the application package is complete the project will then move to plan review. After plan check is complete the project will be submitted to PG&E for final approval and enrollment in the program. At that point incentives will be reserved for the project. **Please be aware that according to submittal requirements, projects will not be accepted after drywall has been installed or HERS testing has begun unless the eligibility date has been reserved.**

Applications packages can be submitted by email: RNC@TRCcompanies.com

Let us know if you have any questions or need any assistance with the application process.

Appendix 2: Incentive Request Form Checklist

This checklist serves as a guide to the Incentive Request Form (IRF) process. We highly recommend you use this sheet while filling out the IRF in order to avoid any processing issues that could compromise your incentive payments. Please feel free to contact CAHP staff (RNC@TRCcompanies.com) at any time if you should have any questions or require assistance.

- An IRF specific to your project was part of your acceptance package. Also included in the acceptance package is a list of all CAHP approved plan types and lots associated with your project. Only these plan types and these lots will be eligible for incentives. The fillable PDF version of the IRF that was delivered can be used for paperless processing and submittal.
- Locate your project in the HERS registry listed on your application (CalCERTS or CHEERS) and confirm that lots being submitted have all testing uploads complete. If you do not have access to your HERS registry, contact your HERS rater and they can either grant you access or help confirm that a lot has had its testing complete and uploaded. Once confirmed, mark (X) the '*HERS Testing Complete in Registry*' column for each lot.
- For each lot you list on the IRF, be sure that the lot's address and plan type match what is listed in the HERS registry. Be sure to write the plan name on the IRF exactly as it is written on the Plan Check Verification Summary Sheet received in your acceptance package. Altering the plan names on the IRF will likely result in delays. Any unapproved plan type or unapproved lot will not be processed and will be rejected.
- Refer to your acceptance package to confirm the kickers applicable to your project and make (X) marks on the IRF. Do not check a box if the lot is not eligible. Be sure to submit any certification or documents as required for each eligible kicker.
- If participating in the ENERGY STAR marketing benefit program, ensure your homes' ENERGY STAR requirements are completed on the HERS registry. Or, submit your ENERGY STAR certificates attached to the IRF. If you are unsure please contact and confirm with your HERS rater.
- For **every** lot, list the closest cardinal direction to the as-built front facing orientation along with a site map (or lot map) with north arrow.
- Be sure to sign and date your form. By signing the form you are certifying that you have: checked the lots for completion, verified they have used an approved plan type, and have supplied all the proper incentive documentation listed above.
 - Note: the form cannot be signed by the Energy Consultant or HERS Rater due to conflict of interest.
- Submit to TRC via E-mail: RNC@TRCcompanies.com



Let Us Help Turn Your Blueprints into Greenprints

Development of sustainable and livable communities combines environmental protection, green building design, energy efficiency and land-use planning integrated with the building design process. These innovative building practices also help you meet your bottom line.

Why It Pays to Exceed Building Standards

Designing energy efficiency into the homes you build helps reduce greenhouse gas emissions, differentiates your community, increases the comfort and indoor air quality of your homes and helps decrease your buyers' monthly utility bills.

Let Us Help You

Energy-efficient appliances, equipment and building materials help homeowners save on utility bills while enjoying a comfortable and healthier, energy-efficient home.

