



All-Electric Residential New Construction Participant Handbook

*This handbook is a working document and Energy-Smart Homes staff reserves the right to update, change and revise the document to clarify program rules and requirements. The most up-to-date version is available on the Energy-Smart Homes website. **This document is version 3.8.***

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**Pacific Gas and
Electric Company®**

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1 Program Terminology

Following is a brief list of terms and parties that this handbook includes.

Accessory Dwelling Unit (ADU): A smaller, independent residential dwelling unit located on the same lot as a stand-alone single family home. ADUs include conversion of existing attached space, a new attached building, or conversion of existing detached space.

Affordable Housing: Housing that is deemed affordable to those with a household income at or below the median income level as rated by the national government or local government by a recognized housing affordability index.

All-Electric: A building or home with no gas end uses in which electricity is the only power source that heats, cools, illuminates, launders, preserves and prepares foods, and entertains.

Alterations: For the Energy Smart Homes Programs' Alterations component, we define an alteration as a complete change in technology.

Applicant: The entity, or representative of the entity applying to Energy-Smart Homes.

Builder: A person(s) or firm whose business is the construction of dwellings.

CALGreen Building Code EV ready requirements: For single family homes, the 2019 California Green Building Standards Code ("CALGreen", Title 24, Part 11) requires that new construction and major alterations include adding "EV Capable" parking spaces that have electrical panel capacity, a dedicated branch circuit, a raceway to the EV parking spot, and wiring to support future installation of charging stations. For multifamily homes, CALGreen requires 10% of parking spaces to be "EV Capable" charging spaces. Spaces must be identified on the plans, but no chargers are required to be installed at "EV Capable" spaces. These requirements remained the same in 2022 code.

The 2022 CALGreen Code updated multifamily dwellings to have additional "EV Ready" charging requirements. They must have 25% of their parking spaces equipped with low power level 2 receptacles, and 5% of parking spaces in buildings with 20 or more units require higher power level 2 chargers. These spaces must be identified on the plans.

California Electric Homes Program (CalEHP): Residential new construction program available statewide for market rate all-electric residential new construction.

California Energy-Smart Homes Program: Residential new construction program available to Investor-Owned Utility customers, referred to as *Energy-Smart Homes* throughout this document.

California Energy Commission (CEC): The California Energy Commission, is the primary energy policy and planning agency for California. The CEC is the program administrator of the California Electric Homes program, the shared program with California Energy-Smart Homes.

California Public Utility Commission (CPUC): A regulatory agency that regulates privately owned public utilities in the state of California, including electric power, telecommunications, natural gas, and water companies.

Certified Energy Analyst (CEA): This certification signifies that an individual understands the current Building Energy Efficiency Standards. The California Association of Building Energy Consultants (CABEC) manages both the residential and nonresidential CEA certification programs.

Community Choice Aggregation (CCA): CCA allows local jurisdictions to aggregate, or combine, their electricity load to purchase power on behalf of their residents. CCAs work with the region's existing utility, which continues to provide customer services including meter-reading, billing, grid maintenance, power delivery, outage response services, and billing.

Contractor: A person or company that undertakes a contract to provide materials or labor to perform the service or job on a project.

Developer: A person(s) who develops land through construction and who, to this end, becomes an owner of the developed land.

Duplex: A house plan with two living units attached, either next to each other as townhouses, condominiums, or above each other like apartments. Duplex homes share a single wall with a dwelling unit on either side of the wall. Duplexes must be modeled as individual and separate units.

Energy Consultant or Title 24 Consultant: The party responsible for preparing and revising the energy model using Title 24 compliance software.

ENERGY STAR®: A program that the U.S. Environmental Protection Agency and U.S. Department of Energy run that promotes energy efficiency.

HERS Rater/Rater: A third-party special inspector that performs field verification and diagnostic testing at various times during construction, to corroborate the technical specification of the energy conservation measures reported in the energy model.

IOU: Investor-Owned Utility.

IRF: Incentive Request Form.

IRP: Incentive Request Package.

Lots: A designated parcel or area of land established to be used, developed, or built upon as a unit and independent building site. Used in this handbook to identify single or multifamily new construction units and homes.

Mixed-fuel: Refers to buildings with electricity and natural gas utilities.

Mixed-use: A development that blends residential, commercial, institutional, or entertainment uses into one space.

Multifamily high-rise (MFHR): Housing with four or more separate units located in one or more buildings with four or more stories above ground.

Multifamily low-rise (MFLR): Housing with four or more separate units connected by shared walls located in one or more buildings with three or fewer stories above ground.

Operations Associate: A member of the California Energy-Smart Homes team assigned to the participating project to act as the liaison between the participant and builders throughout your project's lifespan. The operations associate will be your dedicated guide throughout the program.

Pacific Gas and Electric Company (PG&E): PG&E provides natural gas and electricity to approximately 16 million people from Eureka in the north to Bakersfield in the south, and from the Pacific Ocean in the west to the Sierra Nevada in the east. PG&E is the statewide IOU lead for Energy-Smart Homes.

Participant: Refers to the active individual(s) taking place in the Energy-Smart Homes program.

Reach Code: Local building energy code that “reaches” beyond the state minimum requirements for energy use in building design and construction.

Regional Energy Network (REN): A network of local governments partnering to promote resource efficiency at the regional level, focusing on energy, water, and greenhouse gas reduction.

Residential New Construction (RNC): The act of building any structure, or that part of any structure that is used as a home, residence, or sleeping place by one or more persons.

San Diego Gas and Electric (SDG&E): SDG&E provides natural gas and electricity to San Diego County and southern Orange County in southwestern California.

Single Family: Homes which have just one dwelling unit. For the purpose of this program, duplexes, townhomes, and ADUs are eligible under our single family program requirements. ADUs will receive the same incentive offering as multifamily low-rise projects.

Southern California Edison (SCE): SCE provides 15 million people with electricity across a service territory of approximately 50,000 square miles across Southern California.

Technical Reviewer: A member of the California Energy-Smart Homes team responsible for performing the technical plan review for each project prior to enrollment. The technical reviewer is also responsible for scheduling and executing any site visits.

Thermostatic Mixing Valve: A valve that blends hot water with cold water.

Title 24 Part 6 Building Energy Efficiency Standards (“Standards”): The current building energy standards for all residential and nonresidential buildings. Title 24 Part 6 regulates building envelope, space conditioning systems, water-heating systems, and indoor and outdoor lighting systems. Building design and construction must comply with Part 6.

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 the roof with open space on at least two sides. Must be modeled as individual separate units.

TRC: TRC is serving as the Energy-Smart Homes Program implementer on behalf of PG&E. TRC recruits program participants, provides energy design assistance, conducts plan review, facilitates project approval, provides program coordination, and designs and delivers educational opportunities.

2 Program Introduction

This section provides an overview of the Energy-Smart Homes program including program objectives, incentive offerings, and initial steps to participate.

2.1 Program Overview

The California Energy-Smart Homes All-Electric Residential Program focuses on supporting a high-level approach to achieving California's advanced energy efficiency policy goals through 2025. The deadline is based on the CPUC-approved program cycle and may be extended. The program is available to customers in the SDG&E, PG&E, and SCE territories.

The all-electric program offering will serve the following residential subsectors:



Single family, duplex, and townhomes



Accessory dwelling units



Multifamily low-rise
(three or fewer stories)

2.2 Program Objectives

Energy-Smart Homes is an all-electric residential program focused on supporting California's advanced energy efficiency policy goals and climate change mitigation. The all-electric program offers several benefits for builders and developers including reduced construction costs by eliminating gas hookups and metering, single utility permitting and installation coordination, and elimination of the need to install carbon monoxide monitors. Residents of all-electric homes will benefit from improved indoor air quality, modernized cooking control from induction stoves, improved safety from eliminating unseen gas leaks, reduced operating expenses, and can achieve deeper savings from behavior changes.

The objective of the program is to influence the decision and ease the transition to adopt all-electric new construction practices. To accomplish this, the program will educate potential participants and stakeholders on the features of all-electric homes, enroll projects, emphasize the installation of advanced energy efficiency measures, and facilitate future opportunities through non-incentivized, prerequisite measures that position homes to install high-impact demand response technologies more easily in the future. Additional program objectives include:

- Incorporating grid harmonization and utility communication-enabling measures as prerequisites in residential new construction (RNC) design, allowing for more easily achievable demand flexibility and grid integration in the near future
- Shifting the market further in favor of all-electric
- Educating home buyers on the life cycle cost savings associated with an all-electric home
- Overcoming misperceptions about fuel-substitution

2.3 Program Contact

For more information about California Energy-Smart Homes, contact us:

- Toll-free: (833) 987-3935
- Email: caenergysmarthomes@trccompanies.com
- Website: www.caenergysmarthomes.com
- Participant Portal: [TRC - Customer Portal \(anbetrack.com\)](http://TRC - Customer Portal (anbetrack.com))

To receive the latest program news from Energy-Smart Homes, sign up for our newsletter here:

[Electrify your Inbox](#)

3 Program Participation Process

This section provides an overview of the steps to take to participate in the program.

3.1 Participant Journey

Energy-Smart Homes focuses on a streamlined participant journey including a simple online application process and an online portal for document submittal and incentive requests. Figure 1 below provides a high-level overview of the Energy-Smart Homes participation process.

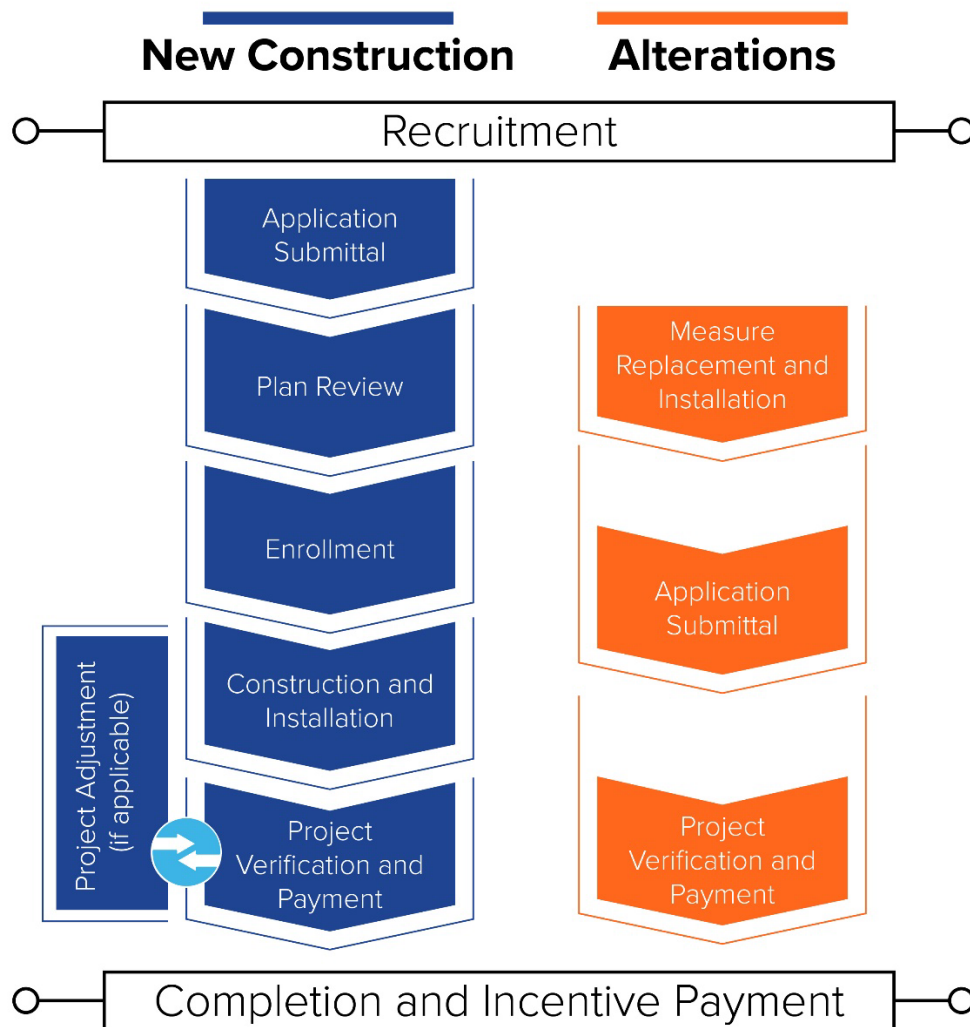


Figure 1. Participant Journey

3.2 Participation Steps

To participate in the Energy-Smart Homes program, please follow these initial steps:

1. After learning about the program, either:
 - Contact Energy-Smart Homes staff at caenergysmarthomes@trccompanies.com to share details about your project or ask any program questions before applying.

OR

 - Access the [participant portal](#) from the program website to submit an initial application.
2. An Energy-Smart Homes representative will follow up with you to discuss your project, obtain any missing or corrected information, and discuss required program application documentation.
3. You will submit the required program application documents (outlined in section 7) through the [participant portal](#). Energy-Smart Homes staff will review your application documents for completion and will communicate with you regarding any missing information or requirements.
4. Upon receiving your application documents and participation agreement, Energy-Smart Homes staff will contact you to obtain any missing or corrected information. At this phase, program staff will also assign a dedicated operations associate to your project.
5. Your application documents will go through the Energy-Smart Homes technical plan review process (outlined in section 5) and when deemed eligible, your operations associate will enroll your project into the program.
6. After Energy-Smart Homes staff enrolls your project, you will complete construction prior to the expiration date specified in your project's enrollment documentation.
7. Throughout construction, you will submit an adjustment application if any of the following change: the number of lots/buildings, number of plans, construction schedule, or equipment/product specification.
8. As lots/building complete construction, you will submit IRFs and verification documents (outlined in section 4.5 and 7) through the portal.
9. Energy-Smart Homes staff will work with you to schedule and conduct a field verification visit as needed, as 15% of all projects completed in any given year will participate in field verification for quality control. See section 5.2 for field verification details.
10. Energy-Smart Homes staff will verify your project completion online through document submittal and coordination with HERS registries and raters (where applicable). We will review your final as-built documents for each lot on the HERS registry (where applicable) to verify that they match the plans approved during the technical plan review process. All projects are required to have a HERS rater perform testing.
11. After confirming all submitted lots/buildings included on the IRF have completed construction and the program has granted approval through the technical plan review process, Energy-Smart Homes staff will issue your payment via check to the payee listed on your approved application.

3.3 California Energy-Smart Homes Participant Portal

As an Energy-Smart Homes participant, you will have ongoing access to your project's status through the [participant portal](#). The portal enables you to submit applications, upload documents, check on project and incentive status, and submit incentive requests. Participants will be able to access their project in the portal using the application ID, applicant email address, and electric utility entered on the application.

3.4 Program Participation Requirements

This section provides program eligibility requirements. These requirements must be met to receive Energy-Smart Homes funding.

3.4.1 Eligible Building Types

The following new construction project types are eligible for Energy-Smart Homes program incentives.

Single Family

Single Family, Duplexes, Townhomes, and ADUs. This document collectively refers to all of these building types as single family hereafter.

Multifamily Low-Rise

Multifamily low-rise is defined as three or fewer habitable stories. This documents collectively refers to these building types as multifamily hereafter.

3.4.2 Applicant Eligibility Requirements

To be eligible for program participation, builders and/or developers must:

- Construct new multifamily low-rise buildings (defined as three or fewer habitable stories) or new single family dwelling units
- Receive electric service from PG&E, SCE, or SDG&E and pay the Public Purpose Program Charge or provide a copy of the Will Serve letter
- Meet minimum program prerequisites and energy efficiency performance thresholds, certification criteria, and equipment specifications
- Submit 2019 or 2022 Title 24 energy models authored by a professional that holds CABEC's 2019 or 2022 residential certified energy analyst (CEA) designation
 - When a single lot contains both a single family home and an ADU project applying for incentives, two energy models must be submitted, one for the main single family home and one for the ADU
 - The ADU's mechanical and water systems must be completely separate from any equipment servicing main home
- Complete and sign an online program participation agreement, including agreeing to program Terms and Conditions
- Agree to not receive financial incentives for the same measures or scope of work from other CPUC resource-funded programs

- Adhere to all applicable federal, state, and local laws and codes, which can include public works requirements under the California Labor Code
- Submit an application and complete technical plan review and enrollment (as outlined in [5.1](#))
- Complete construction based on the submitted project schedule and within three years of enrollment to receive incentives for all buildings.

Projects that meet program requirements will be eligible for the program if their building permit application date is after the January 1, 2022, program launch date. Projects must submit complete applications and receive confirmation of project eligibility at a minimum of eight weeks prior to receiving certificate of occupancy.

3.4.3 Prerequisites

Each dwelling unit must install the following:

- Communicating thermostats with the following capabilities*:
 - Programmable and wi-fi capability that allows occupants to remotely adjust dwelling unit temperature with a smartphone or other mobile device
 - Auto Demand Response (ADR)

*Projects installing a variable capacity heat pump (VCHP) are not required to install a communicating thermostat.

- Induction cooking
 - Projects enrolling before December 31, 2024, can request an exception for the induction cooking requirement. Builders must self-certify on their application supply chain/availability issues to indicate that induction units are unavailable for the specifically enrolled project. Builders using this option must install a 50-amp circuit to support future upgrades. Incentives will be reduced by \$700 for single family homes and \$500 for multifamily homes using the exception.
- Heat pump water heating
- Heat pump space heating
 - HVAC equipment installed must be heat pump technology. Technology that utilizes electric resistance as the primary source of heating is not eligible for the program.
- Segregated circuits by the following types:
 - Lighting including exit and egress lighting and exterior lighting
 - HVAC systems and components including furnaces, package units, whole-house fans, chillers, air handling units, cooling towers, and circulation pumps associated with HVAC
 - Domestic and service water system pumps and related systems and components
 - Plug load including appliances rated less than 25 kVA
 - Charging stations for electric vehicles

When segregating the circuits, it is important to remember 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).

The program envisions the use of conventional panelboards, fuses, circuit breakers, motor control centers, and other standard wiring methods for meeting the requirement to separate electrical loads. The requirement may also be achieved by a well-planned wiring approach, such as connecting all HVAC units to a single feeder from the service using a combination of through feeds and taps.

- Install a 240-volt plug for electric vehicle charging infrastructure (not required for ADUs)
 - Builder agrees to construct all homes with a dedicated 208/240-volt branch circuit installed in the raceway. The branch circuit and associated overcurrent protective device shall be rated to 40 amperes minimum. The builder shall install a 240-volt plug. The plug shall have a rating of 40 amperes according to the United States National Electrical Manufacturers Association (NEMA). The service panel or subpanel circuit director shall identify the overcurrent protective device designated for EV charging purposes as “EV READY” in accordance with the California Electrical Code. The receptacle or blank cover shall be identified as “EV READY” and shall be installed in accordance with the California Electrical Code. Please refer to CALGreen Section 4.106.4.2 multifamily specific EV READY Requirements on the number of spaces, location, and dimension criteria.¹
- Thermostatic mixing valves for each heat pump water heater (not required for ADUs, single family, or multifamily projects installing recirculating loops in their water heating systems)
- Battery storage readiness (not required for ADUs or multifamily)
 - Requires new single family/duplex homes to include a minimum 225-amp busbar, four backed-up circuits (two of which must be the refrigerator and bedroom receptacle outlet), and either a subpanel or split-bus main panel for those circuits
 - NOTE: this is only required as a program prerequisite for projects applying under 2019 code, battery storage readiness is required for all new construction under 2022 code

Multifamily buildings can be enrolled on a building-by-building basis, as an entire project, or in groups of buildings that meet the program eligibility requirements. Enrolling buildings cannot have a gas line or a gas meter associated with them; this includes gas designated for outdoor barbecues and/or fireplaces.

¹ <https://codes.iccsafe.org/content/CAGBSC2019/chapter-4-residential-mandatory-measures>

3.5 Targeted Measures

To further advance the market towards clean energy technology and decarbonization, Energy-Smart Homes is offering additional incentives to defray advanced technology design cost and implementation in support of Codes and Standards advancement.

3.5.1 Central Heat Pump Water Heater Targeted Measures

Design and installation incentives for central heat pump water heaters are available as an add-on to an existing program-eligible multifamily low-rise all-electric new construction project. Building owners applying for the program are eligible for the design incentive once for each unique building type, as determined by TRC. If you are interested in learning more about this targeted measure to include it as part of your application package, please let a member of our team know prior to submitting an application.

The program will pay the full Central Heat Pump Water Heater design incentive upon receipt and verification of the following design documents:

- Current Gas Water Heater Design quote
 - Description of Part
 - Material Price
 - Labor Cost
- Central Heat Pump Water Heater Design for the provided Professional Engineer (PE) stamped system design, with the following:
 - Description of part
 - Price
 - Quantity/units
 - Final pricing
 - Quote date
 - Add/deduct alternate to establish the incremental cost of the work
- All associated dimensioned plan sets stamped by a licensed PE. At minimum, the following should be provided:
 - Plumbing
 - Architectural
 - Mechanical

- Additional Documents:
 - Spec sheet for future Central Heat Pump Water Heater
 - W9 for project payee
 - Proof of utility service at PG&E, SDG&E, or SCE through utility bill or will serve letter
 - Projects moving forward with installation of the Central Heat Pump Water Heater and seeking installation incentives must submit the same documentation as outlined in [section 7](#) upon completion of project

Brief interviews or surveys with the contractors and or design teams may be requested by TRC prior to issuing design incentives.

Additional details regarding the design document requirements are available in the Design Development and Construction Document Phase sections of the AIA Handbook of Professional Practice, Latest Edition.

The program does not require projects to complete installation to be eligible for the design incentive. You will be eligible to receive the design incentive if the plans submitted meet the requirements listed above. If you plan to complete the installation of your design and to receive the targeted measure installation incentives, your application must be accompanied by a multifamily low-rise all-electric new construction project. Your project will be subject to the same eligibility requirements outlined in [sections 4.1–4.3](#) and will need to submit the same documentation as outlined in [7](#) for all other multifamily low-rise new construction projects.

4 Incentives

4.1 Incentive Overview

The Energy-Smart Homes program offers different incentives for each project type. Specific information on incentive offerings is available in the project-specific sections throughout this handbook. Program funds are limited. Incentives are available on a first-come, first-served basis until funds are no longer available.

The program reserves incentives based on the construction schedule that the participant submits during the application process. Failure to follow the submitted construction schedule, without updating the schedule with Energy-Smart Homes staff prior to any deviation in schedule, could result in the loss of incentive reservations. All new construction projects must submit complete incentive request packages, including incentive request forms and certificates of occupancy for each completed lot or building, by December 15 to receive that program year's incentives.

4.2 All-Electric Incentive Overview

The section summarizes the program incentives by project type for all-electric construction. Energy-Smart Homes will provide deemed incentives for new construction projects that meet minimum program prerequisites and eligibility requirements. All-electric incentives de-escalate annually, based on completion year. Figure 2 provides a summary of the new construction incentives available. The program will reduce incentives by \$700 for single family homes and \$500 for multifamily homes for any project using the induction cooking exception.

New Construction Incentives per unit	2023	2024	2025	2026
Single Family	\$3,500	\$3,000	\$3,000	\$2,500
Multifamily Low-Rise	\$1,750	\$1,600	\$1,600	\$1,400
Accessory Dwelling Unit	\$1,750	\$1,600	\$1,600	\$1,400

Figure 2. New Construction Per Unit Incentives

4.3 Targeted Measure Incentives

Energy-Smart Homes offers additional incentives for projects installing program eligible targeted measures.

4.3.1 Central Heat Pump Water Heater Incentives

Figure 3 provides a summary of the central heat pump water heater targeted measure incentives.

Central Heat Pump Water Heater Targeted Measures	Incentive
Central System Design (per project/developer) Full MEP design and documentation	\$5,000
Central System Installation (per unit served)	\$500

Figure 3. Central Heat Pump Water Heater Targeted Measure Incentives

4.4 California Residential Programs Shared Incentives

California Energy-Smart Homes will share base per unit incentives with other residential new construction incentive programs across the state of California. The following instance of when this would occur are as follows:

When a project is eligible for California Energy-Smart Homes and meets the requirements of the California Energy Commission's California Electric Homes program, the project will also be automatically enrolled in the California Electric Homes Program.

When a project is eligible for more than one program, the program administrators will split the total base per unit incentive cost for the applicable program incentivized costs. Each program has individual bonuses that can layer with each other. Each program will pay bonuses separately and in the full amount of that program's offering after program staff confirm the project has met the specific bonus requirements.

4.5 Incentive Request Process

The Energy-Smart Homes team and your operations associate are here to assist you throughout the incentive request process. After the project completes construction, the participant and Energy-Smart Homes staff will follow the steps below to request and process incentives.

1. As lots complete, participants access the program website to download the program's Incentive Request Form (IRF) template under [Resources](#). Contact your operations associate if you are having trouble accessing the IRF template on the program website.
2. Participants fill out an IRF for each completed lot. Projects can submit up to 10 lots for single family projects or 10 buildings for multifamily projects per IRF.
3. Participants send completed IRFs as part of their Incentive Request Package (IRP) to rncirf@trccompanies.com. IRP documents must include any IRFs and a certificate of occupancy for each completed lot.
4. TRC reviews IRFs and completion documentation and notifies the participant when verification is complete. All CF3Rs must be completed according to the CF1R approved for program enrollment. If it is not completed according to a plan that matches what is enrolled, then there will be a need for an adjustment, or the project will not qualify. Testing must begin on any lot requesting incentives after the eligibility date assigned to the project. TRC encourages confirmation of these details in the registry prior to submitting your IRP.
5. TRC will work with you to schedule and conduct a field verification visit as needed, as 15% of all new construction projects completed in any given year will participate in field verification for quality control. See section [5.2](#) for field verification details specific to new construction projects. TRC reserves the right to perform site visits to confirm program eligibility on completed projects prior to issuing incentive payment(s).
6. TRC submits the project to PG&E for incentive payment approval.
7. TRC issues incentive payments to the participant on behalf of Energy-Smart Homes.
8. TRC issues a project closure and completion confirmation after issuing payment for the final lot.

5 Quality Assurance/Quality Control

Energy-Smart Homes has the following quality assurance and quality control plan to support the program and verify specific project types.

5.1 New Construction Project Verification

For new construction, projects are required to go through the following technical plan review process for project verification.

1. TRC will examine all documents and files that the applicant(s) provide for project plan review to verify that the project as submitted meets eligibility requirements, prior to performing the plan review; the technical reviewer will work with the intake and program coordination staff to obtain any missing documents required for the review.
2. TRC will compare the plans/drawings to the performance-building simulation models to ensure they are an accurate model of each plan type.
3. After completing the plan review, TRC will send any questions, comments, requested revisions, or additional specifications to the project team for resolution using a plan review comments spreadsheet.
4. The project's energy consultant or other deemed representative from the project team (builder, architect, etc.) will respond to all comments within the spreadsheet and return the spreadsheet to the technical reviewer along with any other revised building simulation files and compliance documents.
5. TRC's database will retain any requested revisions and corresponding answers within the project file folder for future reference.
6. The technical reviewer will review all the revisions. When the technical reviewer deems them approved, the project moves to the enrollment phase.
7. TRC will create two documents, including a Plan Check Verification Summary Sheet, that will summarize the results of the plan review and provide project savings and incentive information.
8. TRC will upload the approved compliance file (i.e., XML) for each plan to the appropriate HERS registry to ensure the approved energy measures are the same measures that the HERS rater will inspect.
9. TRC will update the project database with all the approved project information and project savings numbers.
10. TRC will issue an e-mail to the project team with project enrollment details including the number of lots, number of plans, compliance margins, and anticipated incentive levels. The project team has five business days to contact TRC if any of the project details are inaccurate or need adjustment.
11. At completion, and upon receipt of signed IRFs, TRC will review the HERS registry for completed CF2Rs, CF3Rs, and certificate of occupancy for each lot or building.

5.2 Field Verification

TRC will conduct field verification of 15% of all dwelling units completed in any given year for quality control (QC). These processes will confirm enrolled projects meet all program-required energy efficiency levels and affirm the installation of all energy efficiency measures and any HERS verifications. These field verification processes will complement and leverage the official HERS verification process for code compliance. Any unoccupied homes must be made available for inspection and must be visited at random, with no bias from the site contact in selecting the homes for inspection.

TRC will maintain a list of potential projects for field verification. This list will include projects that have taken extraordinary energy features, made significant changes to their energy modeling, or give TRC any indication that they cannot meet the energy efficiency levels approved by the program. TRC's field inspection approach includes the following components:

- Schedule and project team communication protocols
- QC field inspection form creation based on enrolled specifications
- Equipment, tools, and site safety protocols
- Inspection protocols to review and document envelope and equipment specifications
- Discrepancy resolution protocols
- Results documentation and follow-up protocols

TRC reserves the right to perform site visits to confirm program eligibility on completed projects prior to issuing incentive payment(s). TRC will facilitate the prompt remedy of all installation discrepancies that may arise. Upon completion of the field verification, TRC will record any discrepancies between the submitted equipment installation documentation and the field verification. We will resolve any discrepancies between the enrolled project specification, installation documentation, or field verification as per the QA/QC plan. Discrepancy resolution may take the form of adjusting the calculated incentives or rejecting incentives altogether.

6 Other Program Policies

6.1 IRS 1099 Reporting Procedures

Energy-Smart Homes design includes incentive payments to individuals and businesses, which may require filing of IRS Form 1099. TRC will follow all applicable IRS 1099 reporting requirements and provide information as needed or requested. Neither TRC nor PG&E is responsible for any taxes that may be placed on participants as a result of receiving incentives.

6.2 Dispute Resolution Procedures

TRC has detailed procedures for tracking and responding to participant questions and complaints about Energy-Smart Homes. When received, TRC will log participant complaints into a tracking system; include the nature, time, and date of the complaint; and address complaints within one week. TRC's program or operations manager will follow up with the participant to ensure the highest level of satisfaction and resolution. In the event of a dispute, the TRC program manager will be the initial point person for issue resolution. TRC will regularly report complaints to PG&E for review of each complaint's status and outcome. If TRC or PG&E identifies a recurring problem, TRC will work to adjust the program or process to avoid future issues.

6.3 Limited Funding

Regarding incentive availability, the program handbook, participation agreement, marketing collateral, and similar participant instructions shall indicate that the program operates on limited funding, using the phrase "first-come, first-served until funds are no longer available."

6.4 Limitation of Liability

Energy-Smart Homes will include limitation of liability statements as part of the program's terms and conditions. The statements will limit both PG&E and TRC's liability:

PG&E shall not be liable for any costs due to a Project's estimated versus actual energy savings related to the Project Incentive to be paid, Project savings that did not materialize, Project cancellation, or implementation cost increase for any reason. In no event shall PG&E, Implementer, or Customer/Builder be liable for any special, incidental, indirect, lost profits, or consequential damages arising from or related to the Project.

6.5 Handbook Version Control

This handbook is a working document and Energy-Smart Homes staff reserves the right to update, change and revise the document to clarify program rules and requirements. The most up-to-date version is available on the Energy-Smart Homes website. ***This document is version 3.8 (updated 11/17/23).***

7 Program Documentation Checklists

All projects must upload the following documents through the participant portal.

New Construction Document Checklist

Application Documents:

- Completed program participation agreement (complete during application submittal or TRC to provide))
- Completed enrollment survey (TRC to provide to each applicant upon enrollment)
- Proof of Electricity Utility service (Will serve letter, utility bill)
- W9 for project payee
- Construction schedule ²
- Shared HERS registry access
 - CHEERS: TRC Energy Services
 - CalCERTS: TRC Energy Services
- Energy models for each plan or building type (.bld files or .ribd files)
 - When a single lot contains both a single family home and an ADU project applying for incentives, two energy models must be submitted, one for the main single family home and one for the ADU.
 - The ADU's mechanical and water systems must be completely separate from any equipment servicing main home
- CF-1Rs to verify the most up-to-date files
 - Watermarked with CalCERTS or CHEERS and signed by 2019 or 2022 certified CEA
- Complete set of architectural, mechanical, electrical, and plumbing (MEP) plans
- Lot list showing addresses, lot numbers, and plan types (in an excel file)
- Site plan with North arrow
- Specification sheets and verification of product qualification
 - The program requires specifications to confirm details such as make, model number, manufacturer, etc. match the inputs in the CF-1Rs and information in the plans, including:
 - Space cooling equipment (AHRI Certificate required)
 - Space heating equipment (AHRI Certificate required)
 - Domestic hot water equipment (AHRI Certificate required)
 - Induction cooking
 - Glazing (U-factor and SHGC)
 - Heat pump dryer (required for projects installing heat pump dryers)

² Submitted construction schedules will be used to reserve incentives, failure to follow the construction schedule, without updating the program prior to deviating from the schedule, could result in loss of incentive reservations.

- If applicable to your project, the following details below must also be uploaded for application approval:
 - Cool roof
 - Heat Recovery Ventilator
 - Whole house fans
 - Battery storage system
 - Solar thermal

Energy-Smart Homes staff may request additional specification sheets, as necessary.

Construction/installation documents (Submitted during construction):

- Significant change orders that materially affect energy aspects of the project
- Revised CF-1Rs

Verification Documents (Submitted after construction completion):

- Incentive Request Form (IRF) to identify which lots or buildings are complete and ready for verification
- CF-2Rs (completed and signed via the HERS registry)
- CF-3Rs (completed and signed via the HERS registry)
- Adjustment application³
- Revised energy models⁵ for each plan or building type (.bld files or .ribd files) as applicable
- Revised CF-1Rs⁵ (that match the CF-2R & CF-3R on the HERS registry)
- Revised plans⁵
- Revised specification sheets⁵
- Certificate of Occupancy for completed lots or buildings (as noted on the IRF)
- Completed customer satisfaction survey (TRC to provide to each applicant during verification)

³ For projects that are going through an adjustment