

All-electric Roseville Advanced Homes Program (RAHP)

Title 24 Code all-electric projects in Roseville Electric Utility (REU) Service Territory

Participant Handbook and Program Agreement for New Construction and Multifamily Alterations Projects

August 2022

Revision History

Document Version	Date of Revision	Changes Made
Version 1	March 12, 2021	Program handbook released
Version 2	August 2022	Included program guidance for new construction and multifamily alterations

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1 Program Overview

Roseville Electric Utility's Residential New Construction Program is available to single family builders and multifamily developers with qualifying new construction projects and multifamily fuel-substitution alterations. The program is an all-electric program intended to encourage builders and developers to design homes and buildings without any gas appliances that are highly efficient and reduce the home's carbon footprint. TRC implements the program on behalf of Roseville Electric Utility (REU). REU is the source of the incentives. TRC acts as a third-party implementer and is the main contact for all program related inquiries, enrollment, verification, and payment submittals. The program encourages builders, energy consultants and HERS raters to prepare for future code cycles by providing builders with cash incentives.

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:

ADUs: Accessible Dwelling Unit

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

CEA: Certified Energy Analyst

CEC: California Energy Commission

CF-1R: Certificate of Compliance, visit www.energy.ca.gov for a full list of forms

CF-2R: Certificate of Installation, visit www.energy.ca.gov for a full list of forms

CF-3R: Certificate of Field Verification and Diagnostic Testing, visit www.energy.ca.gov for a full list of forms

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

CPUC: California Public Utilities Commission

HERS: Home Energy Rating System

IRF: Incentive Request Form

MF: Multifamily Housing

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

RAHP: Roseville Advanced Homes Program

REU: Roseville Electric Utility

RNC: Residential New Construction

SF: Single-family

3 Program Introduction

The Roseville Advanced Homes Program (RAHP) is open to single-family, Accessible Dwelling Units (ADUs), multifamily residential new construction projects as well as multifamily alteration projects that meet the eligibility requirements and are within REU service area. A Certified Energy Analyst (CEA) must create and sign the Title 24 documents. Each home must prove compliance on its own; participants may not group unrelated or detached buildings together. RAHP also offers limited technical assistance to builders to help with code compliance and marketing materials that builders and their salespeople can use to educate prospective homebuyers on the benefits of all-electric homes.

The program is designed to support builders and trade allies to incorporate all-electric measures in their buildings to prepare for future changes in building standards. The all-electric program offers several benefits for builders and developers including reduced construction costs from 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.

3.1 Program Eligibility

Please note the following eligibility requirements to participate in RAHP:

- Incentives are available for new homes, ADUs, and multifamily buildings in Roseville Electric Utility service territory.
- Participating projects must meet minimum program requirements for all homes and multifamily units within the same project.
- Homes must have only electric-powered equipment and no other fuel connections (e.g., natural gas) to or next to the property, including common areas. Certain multifamily equipment and/or pools are exempted. Distributed energy resources (DERs) such as wind and solar are not considered fuel connections.
- For verification purposes, all single-family projects and multifamily low-rise (three stories or less) 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 compliance certificate. This includes verifications of non-HERS measures as applied in the projects' specified registry.

4 General Building Requirements

4.1 New Construction

This section outlines requirements for new construction RAHP.

1. Must receive electric distribution from REU.
2. The following defines the dwelling unit types with R-2/R-3 occupancy that qualify for program participation.
 - a. Detached: A single or multiple-story structure consisting of one dwelling unit not attached to another building (except a garage or casita). This may be either a custom home or production homes.
 - b. Duplex: A structure consisting of two dwelling units; must be modeled as two separate units.
 - c. 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.
 - d. Multifamily home: a building with three or more attached units per building that meet the Title 24 multifamily residential designation (i.e., a dwelling unit of occupancy group R, as defined in the California Building Code that shares a common wall and/or floor/ceiling with at least one other dwelling unit).
 - e. Accessory dwelling units (ADUs): 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. Projects submitting an ADU must submit two energy models, one for the main home and one for the ADU. ADUs that are not registered as an ADU or JADU with the permitting authority are not eligible for this incentive.
 - f. The following facilities do not qualify for participation:
 - i. Single family remodels
 - ii. Additions
 - iii. Manufactured housing
 - iv. Residential care facilities
 - v. Hotels
 - vi. Motels
 - vii. Dormitories
 - viii. Community facilities
3. For single family, duplexes, townhomes and ADUs:
 - a. Must be permitted under the 2022 Energy Efficiency Standards for Low-Rise Residential Buildings (Title 24) and achieve compliance in line with program requirements using a CEC-approved computer method.
 - b. Applicant must contract with a 2022 Title 24 Code CEA to prepare the Title 24 documentation.
4. Single family, duplexes and townhomes must install:

- a. Communicating thermostats with the following capabilities programmable and wi-fi capability that allows occupants to remotely adjust temperature with a smartphone or other device, Auto Demand Response (ADR)
 - b. Segregated circuits for energy monitoring readiness for each source listed below:
 - i. Lighting including exit and egress lighting and exterior lighting
 - ii. HVAC systems and components including furnaces, package units, whole-house fans, chillers, air handling units, cooling towers, and circulation pumps associated with HVAC
 - iii. Domestic and service water system pumps and related systems and components
 - iv. Plug load including appliances rated less than 25 kVA
 - v. Charging stations for electric vehicles
 - vi. For segregated circuits, 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. Each circuit can only serve a lighting load, a plug load, or a single major appliance.
 - c. Electric vehicle charging infrastructure pre-wiring in accordance with CALGreen Building Code EV ready requirements
 - i. Builder agrees to construct all single family 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. 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 receptable or blank cover shall be identified as “EV READY” and shall be installed in accordance with the California Electrical Code.
 - d. Battery storage readiness requires new single family/duplex homes to include a minimum 225amp 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
5. For multifamily homes only: builder shall provide accurate design load calculations reflecting the builder’s participation in the program, e.g., all-electric construction and submit to program representative with the application for service.
 6. For verification purposes, all single-family projects and multifamily low-rise must be compliant on one of the California HERS registries.
 7. Submit projects as detailed in the “How to Apply” section.
 8. Agree to not accept duplicate funding from multiple utility-sponsored energy-efficiency programs for the same measures.

4.2 Multifamily Alterations

This section outlines requirements for multifamily alterations in RAHP.

1. Must receive electric distribution from REU.
2. The following defines the dwelling unit types with R-2/R-3 occupancy that qualify for program participation.
 - a. Multifamily home: a building with three or more attached units per building that meet the Title 24 multifamily residential designation (i.e., a dwelling unit of occupancy group R, as defined in the California Building Code that shares a common wall and/or floor/ceiling with at least one other dwelling unit).
3. Remove gas meters (but not natural gas piping infrastructure)
4. Meet minimum program alteration criteria and equipment specifications
5. Adhere to all applicable federal, state, and local laws and codes
6. Conversion of all gas appliances and equipment to electric systems, including:
 - a. Heat pump space heating (required)
 - b. Heat pump water heating (required)
 - c. Induction cooktops

REU will not accept agreements after June 30th, 2025. Funding for this program is limited and is at the discretion of the Utility Director. Reservations are on a first-come, first-served basis. The agreement is valid for 36 months from the date of REU acceptance.

5 Incentive Offerings

Incentive payments are available only to owners, builders, or developers named on the Agreement. Funds are limited. The program will reserve funds on a first-come, first-served basis for projects that meet the program requirements. The program will not make payments for any changes to the unit that may affect compliance without prior written approval from a program representative.

5.1 New Construction

RAHP will provide deemed incentives for new construction single family, duplex, ADUs, and multifamily homes that build all electric. In addition to the standard per home incentives listed below, builders are also eligible for an additional bonus incentive for induction cooktops in single family homes, and bonus incentives for both induction cooktops and central heat pump water heaters in multifamily homes. Multifamily homes must install heat pump water heaters, not electric resistance. Table 1 provides a summary of the new construction incentive offerings. Incentives are based on the year in which a home/building completed construction and submits a request for incentives.

	2023	2024	2025
Single Family			
Standard - Per Home	\$4,500.00	\$4,000.00	\$3,500.00
Induction Cooking Bonus	\$700.00	\$550.00	\$500.00
Total	\$5,200.00	\$4,550.00	\$4,000.00
Multifamily			
Standard - Per Unit	\$2,500.00	\$2,000.00	\$1,750.00
Induction Cooking Bonus	\$600.00	\$500.00	\$400.00
Central HPWH Bonus	\$2,000.00	\$1,800.00	\$1,600.00
Total	\$5,100.00	\$4,300.00	\$3,750.00
ADU			
Standard - Per ADU	\$2,000.00	\$1,500.00	\$1,250.00
Induction Cooking Bonus	\$600.00	\$550.00	\$500.00
Total	\$2,600.00	\$2,050.00	\$1,750.00

Table 1

5.2 Multifamily Alterations

RAHP will provide deemed incentives for existing multifamily homes that convert all gas appliances (all within the unit) and equipment to advanced electric systems. Incentives will be paid after measures are verified as eligible, installed, and operational. Table 2 provides a summary of the multifamily alteration incentive offerings.

	2023	2024	2025
Multifamily Alterations			
Induction Cooking	\$600.00	\$550.00	\$500.00
Heat Pump Space Heater (SEER 15 or greater, HSPF 8.7 or greater)	\$2,500.00	\$2,250.00	\$2,000.00
Smart Thermostat	\$75.00	\$ 50.00	\$50.00
Heat Pump Water Heater Replacing Storage or Tankless Natural Gas Water Heater	\$3,000.00	\$2,500.00	\$2,000.00
Central Heat Pump Water Heating Design Stipend	Up to \$45,000.00	Up to \$45,000.00	Up to \$45,000.00
Total	\$6,175.00	\$5,350.00	\$4,550.00

Table 2

5.2.1 Central Heat Pump Water Heating Design Stipend

REU or its authorized representatives can provide limited financial assistance at the request of the Builder related to the design, specifications or accommodations for all-electric technologies necessary for central heat pump water heating systems and/or CEC-approved energy analysis computer output prepared by the Builder's consultants. The stipend shall be paid to the Builder and the total amount is decided on a case-by-case basis after program representatives review the following:

1. 50% of the stipend shall be paid at the 100% Design Development Phase as defined by the AIA Handbook of Professional Practice, Latest Edition. The Central Heat Pump Water Heating design (the Work) documents shall include at minimum:
 - Fully dimensioned floor plans and updated space allocations necessary to fix and describe the size and character of the Work.
 - Project performance criteria refined/confirmed.
 - Initial pricing to estimate the incremental cost of the Work.
2. 50% of the stipend shall be paid at the 100% Construction Documents Phase as defined by the AIA Handbook of Professional Practice, Latest Edition. The Central Heat Pump Water Heating design (the Work) documents shall at minimum:
 - Communicate to the Builder, in detail, what design involves.
 - Communicate to the Contractor the quantities, qualities, and the relation of all work required to construct the Central Heat Pump Water Heating design.
 - Enable the Contractor to solicit bids or quotations from subcontractors and suppliers to price the Work.
 - Enable the Contractor to prepare an Add/Deduct Alternate to establish the incremental cost of the Work.

Builders can receive up to \$45,000 for the Central Heat Pump Water Heating Design Stipend, dependent on program representative review.

5.3 Affordable Housing Bonus

Affordable multifamily buildings are eligible for an additional 25% incentive. This additional incentive is available for both multifamily new construction and alteration projects. For new construction, 25% will be added to the standard expected incentive per project. For alterations, the 25% will be added on to the total expected incentive per project. To qualify, the project must demonstrate at least one of the following:

1. Development is certified as affordable housing based on regulatory designation. Acceptable documentation includes:
 - a. Certification letter from the Sacramento Housing and Redevelopment Agency with a site specific Affordable Regulatory Agreement or land covenant,
 - b. Low-Income Housing Tax Credit Programs Recipient - California Tax Credit Allocation Committee
 - c. Home Investment Partnerships Program (HOME) recipient
 - d. Other documentation dependent on program review and approval.
2. Applicant is an Affordable Housing developer. Acceptable documentation includes:
 - a. Community Housing Development Organization (CHDO) designate
 - b. Other documentation dependent on program review and approval

6 How to Apply

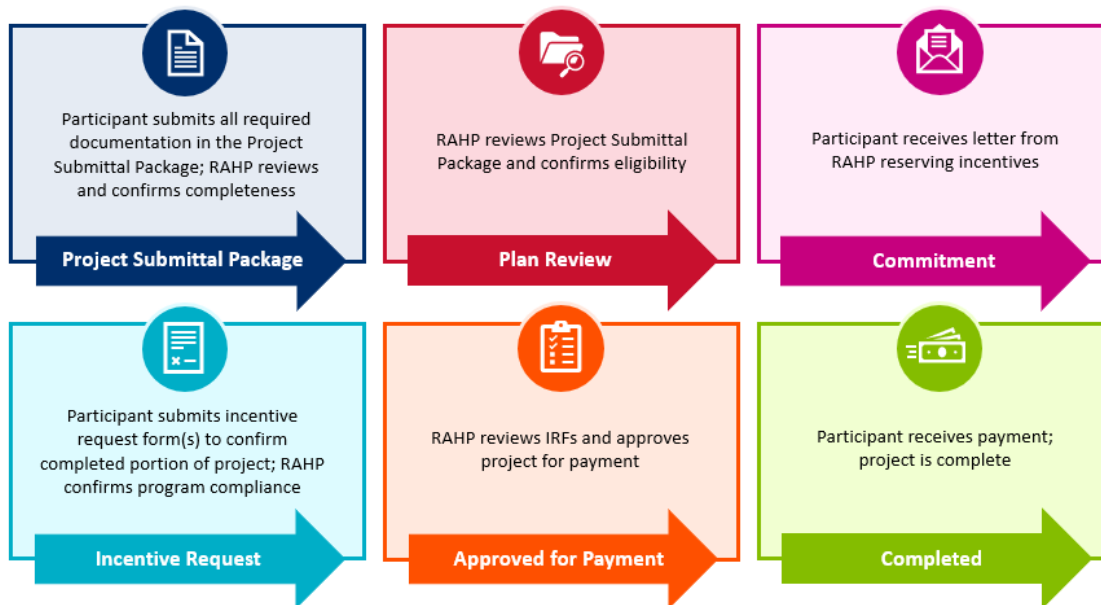
Submit your Application and Project Submittal Package to rnc@trccompanies.com. You will receive an appointed program representative who will guide you through the entire process from application submittal to final incentive payment.

New Construction - Project Submittal Package:

A complete Project Submittal Package for new construction projects must include:

1. A completed Roseville Advanced Homes Program Application (Agreement) postmarked or received no later than June, 30th 2025, or sooner if funds are expended or fully committed. Complete one application per project and list all plans/models and building types.
2. Title 24 Certificate of Compliance (CF-1R)
3. The electronic input file for the Title 24 energy compliance computer run for each model as constructed. Accepted electronic files are .ribd for CBECC-Res and .bid for EnergyPro.
4. A complete set of up-to-date architectural, mechanical, electrical, and plumbing (MEP) construction plans including:
 - a. A set of architectural plans including floor plans, elevations, and sections.
 - b. A subdivision lot map with north arrow for production home projects or a site plan with north arrow for custom homes.
5. A list of lots and addresses including each lot's orientation
 - a. Construction Schedule
6. Applicant/payee W-9 form that corresponds with the Tax ID/SSN listed on the application
7. Access to the project in the respective HERS registry (CalCERTS or CHEERS)

RAHP Project Lifecycle: New Construction

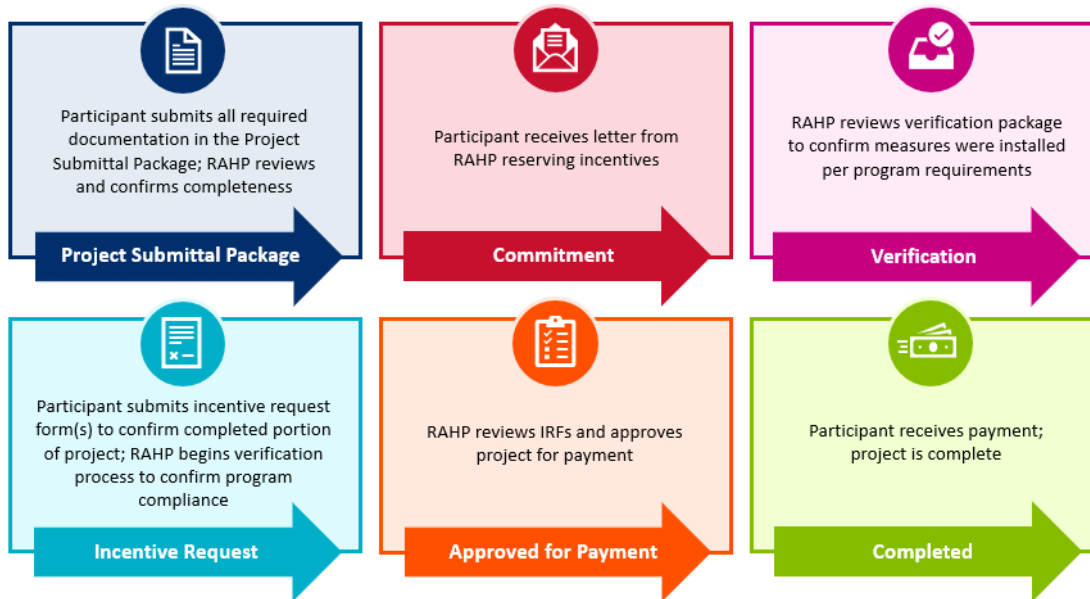


Multifamily Alteration - Submittal Package:

A complete Project Submittal Package for multifamily alteration projects must include:

1. A completed Roseville Advanced Homes Program Application (Agreement) postmarked or received no later than June 2025, or sooner if funds are expended or fully committed. Complete one application per project and list all plans/models and building types.
2. Photos of equipment existing conditions; must also include clear and legible photos of existing equipment nameplates.
3. Equipment and materials documentation or cut sheets
 - a. Photo of existing appliances (should be panned out to see the entire appliance)
 - b. Photo of existing appliance data plates clearly showing brand and model number
 - i. Space heating equipment – specification sheet with manufacturer’s name/model number and efficiency rating for each unit.
 - ii. 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).
 - iii. Water heater – specification sheet with manufacturer’s name/model number and efficiency rating.
 - iv. Induction stove - specification sheet with manufacturer’s name/model numbers
 - v. Smart thermostat - specification sheet with manufacturer’s name/model numbers
4. Copy of Roseville Electric Utility bill
5. Applicant/payee W-9 form that corresponds with the Tax ID/SSN listed on the application

RAHP Project Lifecycle: Multifamily Alterations



TRC representatives may provide design assistance within reason for viable projects. REU will not provide funding for Title 24 documentation authors to reconstruct models or plans in the event of needed corrections.

Upon completion of REU plan check, TRC will provide you with a letter of acceptance and Incentive Request Form (IRF).

Read all program instructions, requirements, and terms and conditions contained herein. For additional program information, speak with your program representative. The applicant listed on the Agreement is responsible for submitting documentation that verifies compliance with CEC requirements to the program implementer’s satisfaction.

In cases where measures and construction elements may vary from default or minimum efficiency values, RAHP may require supporting specifications sheets. Sign the Agreement and submit the application package to your program representative.

Applicants must submit project documentation as a complete package. Program representatives will return incomplete packages to the applicant.

6.1 After Program Enrollment

Once a project receives written approval from REU, the following steps must be completed.

New Construction - Inspection Phase

1. Ensure program-approved CF-1R is uploaded to the HERS registry.
2. Ensure all applicable CF-2R forms are uploaded to the chosen HERS registry for each home.
 - a. Before any inspections are uploaded to the HERS registry, notify REU 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.
3. Obtain the appropriate CF-3R HERS rating certificates for each home after completing field verification (including QII and other HERS measures); submit certificates for the tested home according to CEC HERS sampling protocols. Be aware that the HERS rater will be inspecting to ensure that all program measures are installed. Projects with failures are subject to CEC retesting procedures and related fees at applicant’s expense.
4. Submit Incentive Request Form (IRF) and any additional documentation as requested by REU (e.g., lot site map with north arrow, etc.).

Multifamily Alterations - Inspection Phase

1. Complete installation of program approved measures.
2. Submit the Verification Package:
 - a. Photo of newly installed appliance; one panned out to see entire appliance and one with data plate clearly indicating brand and model number
 - b. Specification sheets for installed equipment
 - c. AHRI Certificates for HVAC and DHW systems
 - d. Proof of Permit closure for HPWH and/or HP HVAC
 - i. Permits should be “Final/Closed” and show permit date, permit number, building official signature, and scope/description of work.
 - e. Incentive Request Form (IRF) and any additional documentation as requested by REU
3. Program representatives will review the application and all documentation to verify measure eligibility requirements and installation
 - a. Program representatives may need to conduct a field verification based on 15% of all alteration projects completing in any given year for quality control.

Verification Phase

5. Prior to paying incentives, a program representative will review all inspection documents to ensure RAHP compliance. REU retains final authority to determine program compliance and eligibility for incentives.
6. The program will issue incentive payments once construction completion and program compliance have been confirmed.

7 Program Eligibility and Financial Incentives

7.1 Incentive Eligibility

The minimum requirement for all-electric residential new construction entry to RAHP is to meet minimum code compliance and have zero gas connected to the home. For multifamily alteration projects, the inspection document must pass review by program staff to ensure RAHP compliance.

Program staff will help the program participants estimate the incentives for their projects. The program may change or cancel incentive levels without notice. Incentive payments can take 45-60 days to issue after a home is approved for payment.

7.2 Rebate Amounts and Payments

Funds are limited and the program will award funding on a first-come, first-served basis until funds are expended or at the discretion of the Utility Director. REU will pay all rebates within 60 days of receipt and acceptance by TRC Companies.

To qualify for incentive payment for new construction, the building/home must meet all program requirements, which include compliance with the applicable code cycle Energy Efficiency Standards Residential Compliance Manual (Title 24) and compliance using a CEC-approved simulation software.

Incentive payments are available only to owners, builders, developers, energy consultants or HERS raters named on the Agreement. The program will pay all rebates upon verification and upload of HERS verification documents to the HERS registry.

Applicant Agrees To

1. Notify REU in writing of any changes that will affect the number of homes or total energy use of homes or buildings under the reservation, and thereby the incentive levels covered by the Application.
2. At REU's discretion, allow REU access to each dwelling unit prior to occupancy to verify installation of measures and perform any on-site diagnostic testing and verification.
3. Applicant agrees not to state or imply to homebuyers or others that it is an agent, employee, or representative of REU.
4. Allow City of Roseville staff to review and approve all use of the City of Roseville logo.
5. Allow City of Roseville staff to review and approve all use of the program name and logo.

Additional Terms

- If the program is terminated for any reason, REU shall not be liable to the applicant for damages or compensation of any kind.
- REU reserves the right to determine eligibility for the life of this program.
- REU cannot be held responsible for any changes in incentive or eligibility, during the life of the reservation.
- REU 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 this program, and expressly disclaims any such representation, warranty or liability. Applicant agrees to indemnify REU and the City of Roseville, its agents and employees against all loss, damage, expense, and liability arising from any measures installed.
- REU reserves the right to modify reservation fund levels upon submittal by builder of revised design specifications.
- All applications are subject to REU verification of eligibility and compliance with supplemental program descriptions and requirements to applicant. REU retains final authority to calculate incentive payments under the above-listed program.

For More Information

Please visit the [Roseville RNC Program](#) website or contact rnc@trccompanies.com.