

TECH Clean California

Rules for Central Heat Pump Water Heater Projects



TECH CLEAN
CALIFORNIA



Agenda

- 1. Central HPWH DR Requirement**
- 2. Incentives Overview**
- 3. Customer Requirements**
- 4. Contractor Requirements**
- 5. Ecosizer TECH-HPWH Calculator**
- 6. Reservation Process**
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- 8. Eligible Equipment**
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1. Central HPWH DR Requirement



TECH CLEAN
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Demand Response (DR) Requirement

Demand Response: Programs facilitate a temporary change in energy usage.

Requirements:

- Customer agrees to DR requirement in TECH Program Terms and Conditions
- Customer must enroll in a qualified DR program for a minimum of 3 years.
- Program will provide contractors with customer handouts that provide explanations and links for enrollment



2. Incentives Overview



Statewide Heat Pump Water Heater Incentive Details

Category	Customer Class	HPWH Incentive	Low-GWP Kicker Incentive*	≥ 55 Gallon Capacity Incentive	Electrical Panel Upgrade Incentive	Max Incentive
Residential Central	General Market	\$900/kWh	\$200/kWh	N/A	N/A	\$300,000 per plant
Residential Central	Equity	\$1,000/kWh	\$200/kWh	N/A	N/A	\$300,000 per plant

* Low GWP kicker incentive is for HPWHs with a refrigerant with GWP of 150 or less. Other ratings, such as OPD rating, cannot be used in place of GWP.

Multi-family Equity Customer Requirements

Requirements

- Deed-restricted low-income residential housing **and** is either:
 - Located in a disadvantaged community
 - A building where at least 80 percent of the households have incomes at or below 60 percent of the area median income
- Also available to customers who have participated in/are eligible for the MASH or SOMAH
- Housing in Tribal lands where at least 80 percent of the households have incomes at or below 60 percent of area median income

Confirming Equity Eligibility

- Building owner provides copy of deed restriction to the TECH Clean California team during reservation stage

Heat Pump Water Heater Incentive Rules – All Projects

- Thermostatic mixing valves are required on all installations and must be properly installed and calibrated
 - Thermostatic mixing valves must conform to ASSE 1017 (point of distribution)
 - Built-in thermostatic mixing valves may conform to UL 60730-1, ASSE 1082, or ASSE 1084
- Contractor must pass 100% of the incentive to the customer
- Incentives available for all replacements types except heat pump water heater to heat pump water heater conversions
 - Same incentive amount for electric conversions



3. Customer Requirements



Customer Program Terms and Conditions

- All customers receiving TECH incentives must sign the TECH Program Terms and Conditions. This agreement will replace the contractor to customer contract that the program currently requires
 - Signed terms & conditions form will need to be uploaded to claim form
- Customers will have to provide the following for heat pump water heater projects only (through terms & conditions)
 1. Confirmation that they allow their utility to switch them onto a time-of-use rate if they are not already on one. They can specify a specific rate or choose the default
 2. Confirmation that they will enroll in an eligible demand response program if there is one available to them
 3. Electric account number

Blank copies of the Customer Program Terms & Conditions form are located at
<https://switchison.org/contractors/incentive-resources/>

4. Contractor Requirements



Contractor Enrollment Requirements

Overall Participant Requirements

1. Hold one of the eligible TECH license types (General A/B, C-20, C36)
2. Have no outstanding complaints with BBB
3. Meet the training requirements listed below
4. Signed updated Trade Professional Participation Agreement (TPPA)

Participant Training Requirements

- At least **one individual from an organization** must attend the ENERGY STAR® Manufacturer Action Council's webinar training (training completion will be tracked)
 - Training schedule and sign up located at switchison.org/contractors/training-hub/
- Others at the organization must take one of the following training courses:
 - A state-certified apprenticeship program
 - TECH & ESMAC heat pump water heater training
 - Manufacturer-specific training located [here](#)

TECH Contractor Enrollment



Never Enrolled?

<https://switchison.cleanenergyconnection.org/form/enrollment-form>

Enrollment requirements include:

1. Active California contractor license in good standing
2. Adherence to the requirements outlined in the [Trade Professional Participation Agreement](#) including insurance coverage
3. Brief program training completion

How To Enroll?



Previously Enrolled?

<https://frontierenergy.formstack.com/forms/tpa>

How to tell if you completed?

1. Check your email for a confirmation
2. Review your listing on CleanEnergyConnection to see if you have a TECH badge
3. Email TECH.info@energy-solution.com

5. Ecosizer TECH-HPWH Calculator

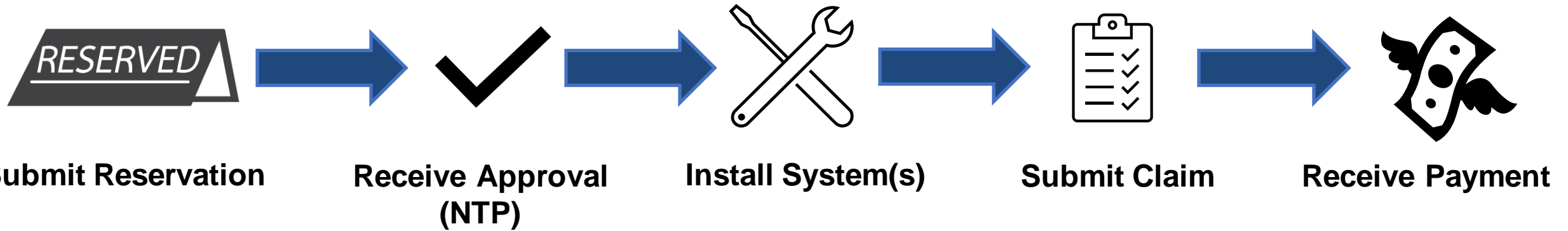


<https://ecosizer.ecotope.com/sizer/annualsim/>

6. Reservation Process



Submission Process



Reservation Policies

Submitted reservations are not guaranteed incentives until approved

Project (scope of work being incentivized) should not start until reservation is approved

Reservations will be reviewed in the order they are received

Reservations may not be substituted or switched with projects higher or lower on the reservation list. If a property no longer wants to participate in TECH, the property listed on reservation may not be substituted with another property.

Approved reservations may not be substituted with unreserved projects

The Contractor listed on the reservation form cannot be replaced with another Contractor

Unless Property Owner provides documentation that existing Contractor has been removed entirely from project for justified circumstances

Work must be completed 12 months from the date of reservation approval

If complexities arise, reservations may submit a request for an extension beyond 12 months of reservation approval date

Send request to TECHMF@aea.us.org at least 1 month in advance of reservation expiration date, and

Must provide evidence of substantial project progress, and

Submitting a request does not guarantee reservation will be extended

In all instances reservations expire June 2025

Reservation Submission and Approval Process



1. Submit reservation (Contractor or Property Owner)

New online form, no login needed, not IRIS –

Link available 3/12/24 at 12 PM PT

Reservations submitted using old

Reservation PDF form will not be accepted

The Contractor or Property Owner completes and submits the online reservation form



2. Initial reservation review (AEA)

AEA reviews submitted reservation form

If corrections are needed, Contractor is emailed a correction request link to update information and resubmits

If equity eligible, Contractor and Property Owner are emailed requesting supporting documents

AEA completes and approves initial review



3. Request for signatures (Contractor & Property Owner)

Digital signature request links are emailed to Contractor and Property Owner



4. Final reservation review and approval (ES)

Energy Solutions completes final review and approves reservation



5. Notice to Proceed (NTP)

Contractor and Property Owner are emailed an approved copy of signed reservation form, program terms and conditions, and equipment requirements

Create a Reservation – Property and Contractor

- To submit a reservation form, go to: [TECH Public Reporting Multifamily Incentives \(techcleanca.com\)](https://techcleanca.com) (Available March 12th at 12 PM PST)

Required Information:

- Page 1
 - Property
 - Property Equity Eligibility
 - Property Owner Company
 - Property Owner Contacts
 - Primary
 - Signatory (if different)
- Page 2
 - Contractor Company
 - Contractor Contacts
 - Primary
 - Signatory (if different)

Multifamily Incentive Reservation Form

TECH Multifamily Incentive Process

Step 1: Initiate process to reserve funds by completing this form

Step 2: TECH Team reviews reservation

- * If corrections are needed, the contractor is emailed a correction request link to update information and resubmit
- * The contractor and property owner will be contacted by email to determine equity-eligibility

Step 3: Electronic signature links are emailed to the contractor and property owner

- * After reservation is signed, another email is sent with a link to verify signatures

Step 4: TECH Incentive Manager completes final review of reservation

Step 5: Contractor and property owner are notified by email whether reservation is approved/not approved

- * If approved, a copy of the reservation form, the program terms and conditions, and equipment requirements is provided

If you have any questions or need assistance contact TECHMF@aea.us.org

Property Information

Occupant Status * Housing Type *

Number of Dwelling Units * Number of Buildings *

Property Name * Property Street Address *

Property City * Property Zip Code *

Property Meter Structure

Existing Space Heating Paid By * Proposed Space Heating Paid By *

Existing Domestic Hot Water Paid By * Proposed Domestic Hot Water Paid By *

Property Equity Incentive Eligibility

Please select all criteria that apply and represent this property. Select N/A if not applicable.*

- ☐ N/A
- ☐ At least 66% of the living units are 80% AMI or less
- ☐ Deed restricted housing or property with restrictive covenant
- ☐ At least 80% of the living units are 60% AMI or less
- ☐ Property is eligible for SOMAH
- ☐ Property is in Tribal Lands

If you have a Deed Restriction, Restrictive Covenant, Rent Roll, SOMAH Participation Agreement, or other documents to support Equity Incentive eligibility, upload here.
Supporting documents may also be emailed to TECHMF@aea.us.org after reservation is submitted, be sure to reference the TECH Reservation ID number and/or Property Address.

Choose File No file chosen

Create a Reservation – Equipment Scope of Work

- **Page 3**
 - Unitary HPWH
 - Quantity
 - Equity Eligibility Adder
 - Low GWP Adder
 - Total Incentive
 - Electrical Upgrades
 - General Market and/or Equity Quantity
 - Total Incentive
 - Total TECH Standard Incentive Requested

Multifamily Incentive Reservation Form

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☐ Save my progress and resume later | ☐ Resume a previously saved form

Page 3

Reservation for Qualifying Equipment Scope of Work (Retrofit Only)

Only TECH measures with current funding are shown on this form, and TECH measures not shown are not available to be reserved at this time. Funding and reservation launch dates for other TECH measures will be announced when available. When funding for additional measures is available, they will be included on this form.

Heat Pump Water Heater (HPWH)

Apartment Unitary HPWH

Gas/Propane/Electric Resistance to HPWH

Sub-Category	Incentive for Individual Apartment	Qty of HPWHs	Total Incentive
< 55 Gallons	\$3100		\$0
≥ 55 Gallons	\$3800		\$0
Equity Eligible Adder	\$1085		\$0
Low GWP Adder	\$1500		\$0

Undersized Apt. Electrical Infrastructure upgraded as part of Unitary HPWH Installation

Apt subpanel, feeder, meter disconnect upgrade

Upgrade Type	TECH Incentive (per Apartment Receiving Electrical Upgrade)	Qty	Total Incentive
General market	\$2000		\$0
Equity	\$4000		\$0

Total TECH Standard Incentive Reserved *

\$0

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Create a Reservation – Equipment Scope of Work

- Page 4
 - Central HPWH
 - Amount of Systems
 - KWh
 - Number of apartments served
 - Equity Eligibility Adder
 - Low GWP Adder
 - Total Incentive
 - Upload Ecosizer Report

Multifamily Incentive Reservation Form

Page: 12345

☐ Save my progress and resume later | Resume a previously saved form

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Central MF HPWH
(Load Shift Optimized System)

Amount of systems
2

System 1
Gas/Propane/Electric Resistance to HPWH

Sub-Category	Incentive for Equipment serving 2+ Apartments	kWh	Number of apartments served	Total Incentive	Attach this System's Ecosizer Incentive Calculator Results Report
Base Rebate	\$900 per kWh			\$0	<input type="button" value="Choose File"/> No file chosen
Equity Eligible Adder	\$100 per kWh	<input type="checkbox"/>			
Low GWP Adder	\$200 per kWh	<input type="checkbox"/>			

System 2
Gas/Propane/Electric Resistance to HPWH

Sub-Category	Incentive for Equipment serving 2+ Apartments	kWh	Number of apartments served	Total Incentive	Attach this System's Ecosizer Incentive Calculator Results Report
Base Rebate	\$900 per kWh			\$0	<input type="button" value="Choose File"/> No file chosen
Equity Eligible Adder	\$100 per kWh	<input type="checkbox"/>			
Low GWP Adder	\$200 per kWh	<input type="checkbox"/>			

Create a Reservation – Layered Incentives, Acknowledgement and Submission

- **Page 5**

- Anticipated layered incentive programs
- Project notes/information
- Acknowledge
 - Terms and Conditions
 - Qualifying Equipment Requirements
 - Project Milestone Requirements and Submission Deadlines

- **Confirmation Page**

- Review all reservation form information entered
- Confirm and submit completed reservation

Reservation confirmation and request emails will be sent from TECHMF@aea.us.org

- Recommend adding as a contact to avoid going to Junk folder

Multifamily Incentive Reservation Form

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Anticipated Layered Incentive Programs

Anticipated Layered Incentive Programs (please select all that apply after)

- ☐ 3C-REN
- ☐ BAMBE
- ☐ CAMR
- ☐ Energy Smart Home
- ☐ ESA-MF
- ☐ LIWP
- ☐ MAHEP
- ☐ SMUD
- ☐ Social REN
- ☐ Other

Total Anticipated Layered Incentives

\$

Project Notes

Project Notes

Acknowledge Info

Please review, upon approval of reservation you will be required to agree to Terms and Conditions and acknowledge the qualifying equipment to ensure compliance with the Program.

Acknowledge Terms and Conditions
Acknowledge Qualifying Equipment Requirements

- ☐ By selecting this box, I acknowledge that I have reviewed the Project Milestone Requirements and understand that Projects unable to comply with the Project Milestone Requirements and extensions.
- ☐ By selecting this box, I acknowledge that I have reviewed and agree with the Program Terms and Conditions and Qualifying Equipment Requirements and understand that Projects unable

Reservation Review and Confirmation

Please select "Review Reservation" button below to review your application responses, edit and print a copy for your records.

IMPORTANT: You must select the "Confirm" button at the bottom of the next screen to complete and submit your reservation for review.

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[Review Reservation](#)

7. Reservation Requirements



Reservation Steps

Steps	
1	Submit reservation form for review
2	Once approved by the TECH team, reservation will be active up to 12 months
3	Submit a Proof of Project Milestone (PPM) to reservation within 3 months of reservation approval to maintain an active reservation
4	It is recommended to wait for confirmation of PPM approval from the TECH team before commencing equipment purchase and installation
5	Project application claim can be submitted as soon as the project installation is complete



Proof of Project Milestone Requirements: 3 month

1. MF Central HPWH Documentation Requirements

- I. Signed TECH Program Terms and Conditions, *and*
- II. System Schematics, including system piping layout, quantity and models of all HPWH equipment to be installed, quantity and sizes of all storage tanks, and quantity, sizes, and models of all Swing Tank(s) (including updated Ecosizer reports if system is different than what was originally submitted at time of reservation), and
- III. Project Construction Schedule (Anticipated Date of Equipment Delivery, Installation Start, and Installation Completion), and
- IV. Proof of Permit Application or Signed Contract between Property Owner and Contractor

Projects that do not meet the 3-month project milestone will be subject to Reservation Form cancellation. A new project reservation submission will be required, and the project will re-enter the bottom of the queue



Proof of Project Milestone Requirements: 6 month

1. All MF Central HPWH projects shall have completed heat pump equipment purchases and shall provide supporting documentation upon request.
2. Projects that cannot meet the 6-month project milestone ***may*** be subject to Reservation Form cancellation and **will not** be eligible for any extension requests beyond the standard 12-month reservation form. The project may choose to submit a new Reservation Form, which will be subject to approval pending the availability of funds and all program rules in place at that time.



Proof of Project Milestone Requirements: 9 month

1. All MF Central HPWH shall have begun substantial installation activities. This is defined as one or more of the following taking place across at least 25% of the MF Central HPWH systems listed on the reservation form:
 - A. Plumbing and stubbing out for new Central HPWH(s) and Central HPWH's electrical roughed in,
 - B. Delivery receipt and acceptance showing HPWH equipment delivered to project address,
 - C. Installation of new HPWH(s),
 - D. Installation of new storage tanks
2. Projects that do not meet the 9-month project milestone **may** be subject to Reservation Form cancellation and **will not** be eligible for any extension requests beyond the standard 12-month reservation term.

If there is only one system on the reservation form, at least one of these actions must have been completed at that system. This shall be supported by photo documentation upon request.



8. Eligible Equipment



Multi-family Central HPWH Equipment Eligibility

1. Systems must be 100 percent electric systems. No fossil fuel-heated auxiliary systems, swing tanks, or parallel loop systems
2. Large heat pump systems must be approved for use in CBECC; systems must be JA13 compliant or meet the requirements of Version 2.0 or later of the ENERGY STAR® Commercial Water Heater Specification
3. Thermostatic mixing valves must be installed and must conform to ASSE 1017 or have built-in thermostatic mixing valves that conform to UL 60730-1, ASSE 1082, or ASSE 1084.
4. Must comply with the TECH Clean California Heat Pump Water Heater Multifamily Central Communication and Control Requirements
5. Incentives are based on the as-built system as entered into the Ecosizer TECH Clean California Heat Pump Water Heater Incentive Calculator

1. [Joint Appendix JA13– Qualification Requirements for Heat Pump Water Heater Demand Management Systems](#)
 2. [ENERGY STAR® Product Specification for Residential Water Heaters](#)
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Central Multi-family HPWH Load-Shift Requirements

Alignment with Ecosizer TECH/SGIP-HPWH Incentive Calculations

- Systems should perform a Basic or Advanced Load-Up Event of at least 1 hour prior to the Shed Event. The Load-Up shall be conducted during the lowest-GHG hours, which are typically 10am-4pm.
- Systems should perform a Shed Event during the highest-GHG hours, which are typically between 4pm-11pm.
- Systems should be in a Normal Event outside of Load-Up or Shed Events
- Systems shall be programmed to align with these load shift events at the time of system installation.
- At Incentive Claim, participants must submit system schematics noting the specific tank and system location of all temperature sensors and/or aquastats used for Load-Up and Shed Events. Unitary HPWH systems that are used for smaller Central MF applications *and* are JA-13 certified are exempt from this requirement.
- At Incentive Claim, participants must submit a narrative description of Load-Up and Shed Control Logic/Sequence of Operations on the system schematics.

Central Multi-family HPWH Communication Requirements

Two-Way Communication

- All systems shall be capable of receiving remote (off-site) Load-Up, Shed, and Normal requests, in accordance with EcoPort definitions (as defined by CTA-2045b).
- Remote connectivity and receipt of commands should be via CTA-2045/EcoPort devices wherever possible. Alternative equivalent communication devices besides CTA-2045/EcoPort devices are permissible for the time being, subject to change.
- Systems shall be capable of storing and reporting data remotely (off-site) as detailed in the knowledge base article. Unitary HPWH systems that are used for smaller Central MF applications *and* are JA-13 certified are exempt from this requirement.

External Data Reporting and Storage Requirements

- Unitary HPWH systems that are used for smaller Central MF applications *and* are JA-13 certified are exempt from the following requirements.
- It is required that systems have additional power sensors on all water heating devices including HPWHs and electric resistance heaters. Data shall be collected at 1-minute increments.

For detailed information regarding communication and data reporting requirements, please visit: <https://techcleanca.com/incentives/multifamily-information/>

9. Installation Requirements



Installation Requirements- Multi-Family Central

All project types:

- In all cases, only installations where a heat pump water heater is replacing a non-heat pump water heating system qualify. Heat pump water heater to heat pump water heater conversions *do not qualify for incentives*
- New construction projects not eligible
- **Thermostatic mixing valves must be properly installed and calibrated**
 - Thermostatic mixing valves must conform to ASSE 1017 (point of distribution)
 - Built-in thermostatic mixing valves may conform to UL 60730-1, ASSE 1082, or ASSE 1084

Installation Requirements	
Residential Central (Multifamily)	Installed and operated to shift $\geq 5\text{kg CO}_2/\text{kWh}$. Must install data monitoring equipment with 2-way communication.

Multifamily: Participation Steps to Keep in Mind

- All multifamily projects will require initial reservations
 - Reservation form can be found at techcleanca.com/incentives/multifamily-information/
 - All reserved projects will have **3, 6 and 9 month proof of project milestone check points.**
- Multifamily is defined as any building with more than one unit. This is a change from the first round of TECH Clean California incentives.
- System eligibility will be determined through use of **Ecotope's Ecosizer calculator**, which can be found at <https://ecosizer.ecotope.com/sizer/annualsim/>

Contact Us

General multifamily questions:

TECHMF@aea.us.org

For contractor support:

TECH.contractor@energy-solution.com

For claims/IRIS support:

TECH.incentives@energy-solution.com

Resources available at:

- <https://techcleanca.com/>
- <https://frontierenergy-tech.my.site.com/contractorsupport/s/>
- <https://switchison.org/contractors/tech-clean-california/>

