Date: **October 27, 2026**

Honorable Mayor and Council Members:

Author and title: Erin Brewster, Sustainability Program Manager

Title: **Heat Pump Air Conditioning Rebate Program Guidelines**

Jen Callaway, Town Manager

Recommended Action: That Council:

(1) Approves the guidelines for the Heat Pump Air Conditioning Rebate Program and provides direction to staff on recommended program goals and performance metrics.
(2) Approves staff's recommendation to include costs for an online application tool in the program budget.
(3) Authorizes staff to utilize the full approved Fiscal Year 26/27 budget of $70,000 from CIP C2611 to support both the proposed heat pump air conditioning rebates and the existing Truckee Donner Public Utility District weatherization rebate partnership, with flexibility to allocate funds as needed across both rebate programs on a first-come, first-served basis.

Program Goal: *Reduce greenhouse gas emissions from residential space heating by incentivizing installation of high-efficiency electric heat pump space heaters in Truckee homes. Specifically, this program will encourage installation of dual-fuel heat pumps instead of air conditioning-only equipment, as well as further incentivizing full heating system electrification. Metrics to be used to evaluate program success include the number of heat pump units installed, both as part of dual-fuel systems and as replacements for gas or propane furnaces, and the percentage of cooling equipment installed as heat pumps rather than air conditioning-only units.*

Discussion: The Town of Truckee has committed to reducing its greenhouse gas (GHG) emissions 40% by 2030, and 80% by 2040, relative to a 2008 baseline. Building energy use is the second-largest source of community-wide GHG emissions, which are primarily from natural gas use for space heating. Addressing this source of emissions will be a key part of meeting the Town's adopted GHG emissions reduction goals. The Town's adopted Climate Action Plan identifies the need for a comprehensive electrification and energy efficiency retrofit program (Action CAP-7.A) to address these emissions sources. The Climate Action Plan outlines that energy efficiency initiatives are expected to achieve a maximum reduction of 20% in existing residential energy use by 2030, with the majority of GHG emissions reduction in this sector coming from fuel-switching initiatives such as installation of high-efficiency electric space heating equipment to replace natural gas or propane furnaces.

During the Town's exploration of building energy reach codes from 2022-2024, heat pump air conditioning was identified as a key area of focus for building decarbonization efforts (see staff report linked as Attachment 1). While air conditioning (A/C) is still relatively uncommon in Truckee, demand for air conditioning is increasing, with 80-90% of A/C units installed in recent years representing new cooling capacity rather than replacements of existing units. This trend is expected to continue as Truckee experiences the impacts of climate change, presenting a time-sensitive opportunity to promote the

installation of heat pumps instead of A/C-only units in Truckee. Air conditioners and heat pumps are essentially the same type of equipment, which move heat from one place to another rather than generating it through combustion. Heat pumps have a reversing valve that allows them to transfer heat in both directions, providing both heating and cooling, while A/C units can only provide cooling. Instead of installing an A/C-only unit alongside an existing gas furnace, homeowners can install a heat pump to create a dual-fuel heating system, referred to as "heat pump air conditioning." Heat pump air conditioning has a much lower incremental cost compared to full heating system electrification and is likely to be more appealing to residents who are reluctant to fully electrify their heating equipment. While dual-fuel systems may not completely replace natural gas use for heating, they can still significantly reduce natural gas use and associated GHG emissions from space heating.

On December 10, 2024, the Town Council directed staff to (a) develop a residential heat pump air conditioning incentive program, (b) analyze potential policy options for a heat pump air conditioning requirement for single-family homes in Truckee and present recommendations to the Town Council for consideration, and (c) integrate heat pump air conditioning into contractor education programs (see Attachment 1). Due to lack of qualified consultant availability and changes in state law, the Town did not move forward with exploration of a heat pump air conditioning reach code in 2025, but heat pump air conditioning and dual-fuel systems have been integrated into the contractor education program offered by Balance Point Home Performance and Sierra Business Council beginning with a webinar in April 2026. This report presents recommended guidelines for the heat pump air conditioning incentive program.

Proposed Rebate Program Details

This heat pump rebate program offers a base rebate available for installation of a qualifying heat pump unit that reduces fossil fuel use for residential heating, including systems installed alongside a gas or propane furnace as part of a dual-fuel system. A higher rebate amount is proposed for installations that fully replace an existing gas or propane furnace, as shown in Table 1 below. Full proposed program guidelines and equipment requirements are in Attachment 2.

Table 1: Proposed Town Heat Pump Rebate Amounts

	Heat Pump Air Conditioning[1]	**Full Heating System Electrification[2]**
Base Rebate Amount	$2,000	$3,000
Additional Amount: Duct Leakage Testing and Mitigation	$1,000	$1,000
Maximum Total Rebate:	**$3,000**	**$4,000**

[1]Applies to heat pumps installed to replace existing A/C units or to add new cooling capacity as part of a dual-fuel system with a gas or propane furnace.
[2]Requires removal of existing gas or propane furnace in addition to heat pump installation to qualify.

Additionally, to improve heating and cooling efficiency and encourage right-sizing of heat pump units, an optional additional rebate of $1,000 is available towards the cost of air duct leakage testing and mitigation when conducted alongside an eligible heat pump installation. This additional rebate can be "stacked" with the residential building envelope rebates offered by the Town and Truckee Donner Public Utility District (TDPUD) for a total of up to $2,600 towards duct leakage testing and mitigation. This was added to the proposed guidelines based on the cost-effectiveness research conducted by consultants and conversations with local HVAC experts, who indicated that many local duct systems are in serious need of repair or replacement. Duct leakage causes reduced system efficiency, leading to unnecessary oversizing of equipment, and increased costs to the consumer for both equipment and energy use. Eligible costs for this additional rebate include:

- Central system duct leakage testing (both before and after mitigation measures)
- Duct sealing and repairs or mitigation of other issues identified during duct leakage tests

- Duct replacement

The heat pump rebates are designed to stack with TDPUD's existing heat pump rebates when applicable, increasing the total potential rebates available to Truckee residents. A typical dual-fuel heat pump system will switch over to gas heat at an outdoor temperature of around 35-40 degrees. With these settings, a dual-fuel system would not be eligible for TDPUD rebates, which require that backup gas heat only operates at 20F or below. However, homeowners could size their dual-fuel heat pumps to take on a larger share of the heating load and receive up to $1,750 in additional incentives from TDPUD, with the total applicable rebate depending on equipment size and efficiency ratings. TDPUD offers higher rebate amounts for full heating system electrification, which results in the following tiered rebate structure for eligible heat pump installations, assuming a 3-ton heat pump. These amounts do not include the optional $1,000 for duct testing and mitigation.

Table 2: Total Potential Rebates for a 3-Ton Heat Pump Installation

Scenario	Town Rebate	TDPUD Rebate	Total Rebate
Dual-Fuel System (default settings)	$2,000	$0	**$2,000**
Dual-Fuel System (backup heat limited to <20F)	$2,000	$600-$1,050	**$2,600-$3,050**
Full system electrification	$3,000	$1,500-$2,400	**$4,500-$5,400**

This tiered structure accomplishes the following goals, based on direction received from the Town Council in December 2024:

1. Offsetting the incremental cost of heat pumps compared to similarly-sized A/C-only units to encourage installation of dual-fuel heat pumps instead of separate furnace and A/C
2. Incentivizing upsizing of heat pump units in dual-fuel systems to take on a larger percentage of the heating load
3. Further incentivizing full system electrification

Currently, there are no available rebates from Liberty Utilities that would be possible to combine with the proposed Town-funded rebate program, as Liberty Utilities heat pump rebates are only for replacement of existing electric equipment. Under the current proposed guidelines, the Town-funded heat pump rebates are only available for heat pump installations that reduce natural gas or propane use for heating.

Cost Gap Analysis

Cost analysis for heat pump upgrades and was conducted by the statewide California Energy Codes and Standards (CECS) program using Truckee-specific data as well as additional research by two consultants funded with a grant from the California Energy Commission. According to research conducted by Infrastructure Improvement, Inc., the typical cost gap (after consideration of existing utility incentives) to install a similarly sized heat pump instead of air conditioning equipment in a centrally ducted heating system is approximately $1,400-$2,800. The proposed $2,000 rebate for heat pump air conditioning is expected to offset the typical expected incremental equipment cost for the current average air conditioner unit size installed in Truckee (approximately 3 tons). Because heat pumps and air conditioners are essentially the same type of equipment, installation costs are similar when installed alongside a gas furnace in a centrally ducted system, so only equipment cost was analyzed for this cost gap. It's important to note that the actual cost and cost gap for any individual HVAC project may vary significantly based on the specifics of the home and equipment used.

Because Truckee's heating demand is significantly higher than the cooling demand, heat pumps based on A/C unit size will not fully cover the heating load. However, previous studies of heat pump air conditioning in cold climates demonstrated that heat pumps sized based on existing A/C capacity covered a larger share of the heating load than expected because the original A/C units had been oversized.[1]

[1] Variable Speed Heat Pumps as Air Conditioner Replacement, Center for Energy and Environment, January 31, 2024.

Systems that size their heat pump to cover the heating load down to 20 degrees Fahrenheit will be eligible for up to $1,750 in additional incentives from TDPUD. To determine the proper unit sizing, contractors must conduct calculations specific to each home. Since the incremental cost of sizing up a heat pump unit depends entirely on project-specific calculations, the percentage of the heating load covered, and whether the existing A/C, if applicable, was oversized, staff do not have an estimate of the typical cost gap for sizing up a heat pump unit in this scenario.

Full replacement of a gas furnace with a heat pump has an estimated upfront cost gap of $10,800 for a 3-ton unit after consideration of existing utility incentives, according to the CECS Truckee Study and research conducted by Rincon Consultants, Inc. Between the proposed Town and existing TDPUD rebates, a 3-ton heat pump would be eligible for a total of up to $5,400 in incentives, covering approximately half the total upfront cost gap. Based on direction received from Council in December 2024, this rebate program is intended to address the cost gap between A/C-only units and heat pumps for dual-fuel systems, not the entire cost gap for full heating system electrification. However, the Existing Building Decarbonization Roadmap outlines other programs such as the Town's Building Electrification Token Program, expected to launch soon, that can offer additional incentives towards this cost gap. The Equitable Funding Strategy for Building Decarbonization, which is currently under development, will further identify incentive strategies to support heating system electrification, focusing on funding strategies that are more equitable and accessible to the Truckee community than traditional rebate programs. Additionally, it is worth noting that the 2022 CECS Truckee Study found that replacing a centrally ducted gas furnace with a heat pump in existing Truckee homes was almost always cost effective in TDPUD territory over the lifetime of the equipment due to ongoing energy cost savings, even before consideration of incentives. TDPUD customers were estimated to save a total of approximately $1,800-$16,000 in energy costs over the equipment lifetime by switching from a gas furnace to a heat pump.

Additionally, full heating system electrification is not always more expensive than like-for-like replacement of existing equipment, particularly when compared to simultaneous furnace and air conditioning installation. In the past five years, more than a third of permitted air conditioning installations in Truckee were performed at the same time as a furnace replacement. These projects would likely have saved money if the homeowners had instead installed a single heat pump for both heating and cooling instead of a separate furnace and air conditioner. Increasing both homeowner and contractor awareness of the benefits from heating system electrification, including cost savings compared to simultaneous furnace and A/C replacement, can help encourage heat pump adoption while further reducing costs for homeowners. This is already part of the Go Electric Truckee Tahoe contractor training program and Keep Truckee Green staff will integrate this information into the rebate program outreach materials to help inform homeowners.

In order to better support right-sizing of heat pumps installed as part of this rebate program and reduce costs from unnecessarily oversized equipment, this program also proposes an additional incentive of up to $1,000 towards the cost of improving efficiency of air ducts. Rincon Consultants, Inc. estimated the typical cost gap for HVAC ductwork and distribution system improvements to repair leakage (after consideration of existing utility incentives) at $700. The additional $1,000 rebate proposed as part of this program should be enough to cover that cost gap as well as a portion of the cost of duct leakage testing (estimated at about $500-$1000 for testing both before and after repairs). Duct work and distribution system improvements are also very cost-effective, as these efficiency upgrades result in lower energy costs for residents. These upgrades have an average estimated payback period of four years for TDPUD customers and 10 years for Liberty Utilities customers according to the CECS Truckee Study, which doesn't include consideration of available rebates to reduce upfront costs.

Optional Online Application

As part of the program budget, staff recommend including funding for an online application tool. The Town currently contracts with Resolv Systems Inc. to provide an online energy incentive finder, available at Truckee.ResolvRebates.com/rebates. This platform was selected in part due to the option of adding an online application tool to support future incentive programs developed by the Town. Adding the online

application tool to the incentive platform would cost $10,000 for FY 26/27, and $20,000 total for calendar year 2027. This tool would also support other current and future Town-funded incentive programs in addition to the heat pump air conditioner rebate. Details of the proposed online application support are included in Attachment 3.

The online application would be directly integrated into the online incentive finder platform, allowing applicants to find rebates, assess eligibility, and apply directly through the same website. The online application would be available in both English and Spanish. By inputting a few pieces of information about their project, the tool could help potential applicants identify all applicable rebates from the Town, and local utilities for a given project, and could generate applications for both Town and utility rebate programs (including the building envelope and heat pump rebates) from a single online form. It would also allow for integration with the Building Electrification Token Program application, as many applicants to that program may be eligible for heat pump rebates from the Town and/or TDPUD. This would significantly streamline the process for applicants, who would otherwise need to fill out up to four separate application forms for the same project. Streamlining the application process to the extent feasible will help provide an additional incentive to participate in the program.

Resolv's application tool includes an integrated AI-based review tool that helps applicants auto-fill parts of their application from the documentation they upload, including equipment specifications included on contractor invoices and receipts. It also automatically checks applications and supporting documentation for completeness and flags anything that seems incorrect or incomplete before submittal, reducing processing time. The use of this tool also includes back-end staff support from Resolv to conduct a preliminary review of submitted rebate applications and follow up with applicants if any additional information is needed, which in their experience is often the case. This will help support applicants who are struggling with the application process and minimize the amount of Town staff time needed to process applications, especially with a technically complex program that requires a large amount of supporting documentation with each application.

While Keep Truckee Green has sufficient staff capacity to support processing of standard PDF and paper applications for the relatively small number of anticipated rebates in the remainder of FY 26/27, a higher volume of rebate applications could begin to create capacity constraints. If this program expands in future years due to success in incentivizing more heat pump installations, processing applications internally will begin to limit the ability of the Keep Truckee Green Division to support other sustainability initiatives. Staff also believe this online application tool provides significant value to program applicants, helping streamline and simplify a very technical process. Accordingly, staff recommend including the online application support tool in the budget to minimize the Town staff time required to support this program on an ongoing basis and to significantly streamline the process for applicants.

Program Budget

Funding for this program was included in the FY 26/27 budget for CIP C2611: Building Decarbonization Incentives. This CIP includes a total of $70,000 for both this proposed heat pump air conditioning incentive program and the co-funding for TDPUD weatherization rebates. The adopted CIP budget for FY 26/27 estimated $50,000 in funding for heat pump air conditioning incentives and $20,000 in funding for the TDPUD weatherization rebates, though staff anticipate the actual amount for the TDPUD rebates will be less based on current levels of participation in that program.

Based on the proposed program guidelines, the $50,000 program budget would fund 12-25 rebates through June 30, 2027. Inclusion of the funding for the online application tool would reduce the number of available rebates in FY 26/27 between two to five available rebates. However, this could be largely offset by allowing flexibility in how the funding is allocated across the two rebate programs, allowing for unused funding currently allocated for the TDPUD weatherization rebates to support additional heat pump air conditioning rebates. To date, only $2,083.55 has been spent on Town-funded weatherization rebates in FY 26/27.

Accordingly, staff request to have flexibility in allocating funds from CIP C2611 across the two supported rebate programs. If this request is approved by Council, staff will closely monitor program participation in both programs, with rebates approved on a first-come, first-served basis across both programs against the total CIP budget of $70,000 for FY 26/27. If program participation significantly exceeds staff's current estimations, staff will return to Council for direction to either allocate additional funds for FY 26/27 or close both rebate programs to new applications through the remainder of the fiscal year.

Next Steps and Other Building Decarbonization Efforts

If approved by the Town Council, staff will finalize the program application and other documents and prepare for program launch, currently estimated for January 1. This estimated launch date will allow time to develop the application materials and other program documents, finalize and launch the new Keep Truckee Green website, and develop outreach materials about the new rebate program. Staff will also explore options to better integrate information about available rebates into the permit application process for relevant building upgrades, including directing applicants to the rebate finder and online application.

In addition, staff will continue working on other building decarbonization efforts that support installation of heat pumps, such as ongoing contractor education initiatives (including additional heat pump air conditioning training), launch of the Building Electrification Token Program, and development of an Equitable Funding Strategy for Building Decarbonization. While the adopted Existing Building Decarbonization Roadmap already outlines several additional measures that could support heat pump installation in Truckee, the Equitable Funding Strategy is expected to identify additional measures for Town consideration with a special focus on equitable implementation across all segments of the Truckee community. Staff currently anticipate presenting the Strategy to Council in early 2027, which will include any recommendations for programs to consider as part of the next 2-year Council Priorities Workplan.

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Priority:

☐	Enhanced Communication	☒	Climate and Greenhouse Gas Reduction	☐	Housing
☐	Infrastructure Investment	☐	Emergency and Wildfire Preparedness	☐	Core Service

Fiscal Impact: Approval of this program would allocate the remainder of the approved FY 26/27 budget for CIP C2611: Building Decarbonization Incentives, for a total budget of $70,000 across both the proposed Heat Pump Air Conditioning Rebate program and the existing TDPUD weatherization rebate partnership.

Public Communication: Agenda posting and discussions with local HVAC system and building decarbonization experts, including members of the Contractors Association of Truckee Tahoe.

Attachments:

1. Staff report from December 10, 2024, available at: https://portal.laserfiche.com/Portal/DocView.aspx?id=59764207&repo=r-6a91ddbc
2. Draft Heat Pump Air Conditioning Rebate Program Guidelines
3. Online Application Support Proposal