

**SCHEDULE 810
HYBRID SYSTEM PILOT****PURPOSE**

This schedule defines the Hybrid System Pilot (Pilot) which seeks to collect data on how three different configurations of hybrid heating systems and control strategies can be used to reduce greenhouse gas emissions, lower overall natural gas throughput, minimize customer operating costs, and serve as a demand response mechanism.

AVAILABLE

Pilot participation is voluntary and will be available to 24 residential customers who meet the following criteria:

- 1) The customer must be receiving residential natural gas service in the city of Bend, Oregon, or Deschutes County, Oregon.
- 2) The customer's service premise, hereafter referred to as the host site, must be a single-family, detached home.
- 3) The host site must have an existing and functioning natural gas forced air furnace that is not more than 10 years old.
- 4) The host site must also have an air conditioning unit.
- 5) The host site must be able to accommodate the selected outdoor heat pump unit and have adequate space for equipment.
- 6) The host site must have a wireless internet network available.
- 7) The customer must affirm their intention to remain in their home for the duration of the 2025-2026 heating season.
- 8) Preference will be given to three income-qualified customers for pilot participation, defined as having been income verified to receive Schedule 36, Energy Discount Program services.

ENROLLMENT

Customers may apply to participate in the program by visiting the Cascade website and submitting an interest survey.

TERM

The pilot will commence on April 1, 2025, and end March 31, 2027.

PILOT STUDY GROUPS

The pilot will be comprised of three hybrid system technologies and advanced control systems. The 24 participants will be divided into three subgroups of Pilot participants and will utilize the various technology combinations to test the following research questions:

(continued)

**SCHEDULE 810
DUAL FUEL SYSTEMS PILOT****PILOT STUDY GROUPS (continued)**

- 1) How much can the various hybrid system combinations reduce therm usage while still balancing resiliency and reliability?
- 2) How can the electric and natural gas systems interact to provide the greatest benefit for system-wide energy decarbonization?
- 3) What are the impacts of hybrid systems on customer operating cost affordability and Cascade's upfront investment costs?
- 4) Can hybrid systems be used effectively for natural gas demand side management (non-pipe alternatives)?

PILOT EQUIPMENT

Participating customers will receive certified and warrantied hybrid systems. Cascade will leave the systems in place at the completion of the Pilot. The entire cost of purchasing and installing the hybrid systems will be included in the total Pilot cost. Customers will receive no bill for equipment or installation at the host sites. Customers will receive a no-cost invoice from the contractor that will carry a record of what was installed at the host site along with any manufacturer-provided warranty.

CASCADE'S RESPONSIBILITIES

Cascade's responsibilities are as follows:

- 1) Solicit and screen customers for the Pilot; and
- 2) Identify third-party heating, ventilation, and air conditioning (HVAC) contractors interested in installing hybrid systems for the Pilot.

GTI ENERGY'S RESPONSIBILITIES

GTI Energy's responsibilities include the following:

- 1) Complete a market assessment and laboratory evaluations to select the three hybrid system technologies for the Pilot;
- 2) Work with Cascade to screen the third-party HVAC contractors, onboard contractors for this Pilot, and coordinate the contractors' training with relevant manufacturer(s);
- 3) With feedback and engagement from selected manufacturer(s), develop host site selection criteria, screen customers and host sites, execute a field test agreement with each selected customer;
- 4) Oversee the installation and commissioning of the selected hybrid systems, including monitoring and data collection equipment;
- 5) Coordinate with installation contractors and manufacturer(s) to detect, diagnose, and resolve performance issues, and provide on-call support to participating customers;
- 6) Conduct surveys with participating customers to collect qualitative data; and
- 7) Compile a report detailing the finding of the pilot program.

(continued)

**SCHEDULE 810
DUAL FUEL SYSTEMS PILOT**

CUSTOMER RESPONSIBILITIES

A participating customer's responsibilities include the following:

- 1) Execute a field test agreement with GTI Energy;
- 2) Agree implicitly to remain a resident of their home and a Cascade customer through the term of the pilot;
- 3) Agree to indemnify Cascade from any claims related to the pilot equipment, including its installation, maintenance, efficiency, warranty, lifespan, and disposal;
- 4) Accept that their average monthly natural gas and/or electric bills may increase or decrease as a result of the Pilot;
- 5) Agree that GTI Energy may interact with the pilot equipment at any time with the intent of remotely adjusting the device settings in accordance with the project goals and regardless of the outcome, the customer agrees to continue to be financially responsible for their Cascade and electric accounts;
- 6) Adhere to the limitation that since the customer is receiving the heat pump at no costs, the customer may not apply to the Energy Trust of Oregon for a heat pump incentive for the heat pump installed for the pilot; and
- 7) Exclusively own the pilot equipment and its related warranties, and retain responsibility for all maintenance and replacement costs at the conclusion of the Pilot.

PILOT PROGRAM COSTS

Cascade will defer for future recovery all Pilot costs, forecast to be \$1.5 million dollars.