

Island Affordable Energy Project

Frequently Asked Questions

I. The Pilot Program

Why is Phase 0 called Phase 0?

Phase 0 is the initial phase of the pilot project that will test the efficacy of using donated Steffes Electric Thermal Storage heaters to provide supplemental home heating. Because the pilot project will only take place for a portion of a heating season and its goals and number of participants is limited, it has been named “Phase 0,” as opposed to “Phase 1.”

How were participants chosen for Phase 0?

The six participants for this phase were selected based on their interest in the program and their building’s capacity to support a unit, with an eye towards creating a diverse sample of the community’s heating needs.

Is the Fox Islands Electric Coop sponsoring this project?

No. This project is an effort of the Island Energy Task Force, not the Coop. However, the Coop is being regularly briefed on its’ progress. Analysis of the pilot project will also inform the Coop on the pros and cons of implementing a special tariff.

Who will monitor the study and provide information to participants?

The pilot project is led by the Island Energy Task Force, with support from the Island Institute and VCharge. Together, these project partners will be interacting with participants on a regular basis to troubleshoot, collect information and share news on the pilot project’s progress.

Who is paying for the pilot project?

The six ETS units have been generously donated by the Steffes Corporation and Thermal Electric Storage of Maine. The additional funding to cover the costs of the hardware and software development, as well as project management support, will be covered by private donations and grants secured by the Island Institute on behalf of the Island Energy Task Force.

II. The Technology

What is Electric Thermal Storage?

The basic technology behind Electric Thermal Storage (ETS) is simple: high-density ceramic bricks inside the unit can be heated up to 1,400° F using electrical resistance. The special design of the bricks and the unit’s insulation enables heat to be stored for up to a day. As a result, ETS units are highly efficient heating systems that can also store electricity produced by the turbines that would otherwise be sold to the mainland. For more information on ETS, see:

<http://www.skrecc.com/ets.htm>

What are the units being used in Phase 0?

The ETS room units being used in this phase were manufactured and donated by the Steffes Corporation of North Dakota (and their partner, Thermal Energy Storage of Maine). Steffes room units are non-ducted heaters designed to heat the room or area into which they are placed. While Steffes makes furnaces that are suitable for use in new construction applications, the units being used in Phase 0 are more ideal for retrofitting traditionally heated homes to lower heating costs. These units are designed to provide supplemental heat, not to replace existing heating systems.

When are the heaters charging?

The Glen Cove end of the submarine cable is monitored and a signal is sent allowing the heaters to charge whenever the wind project is generating more power than the islands are using (i.e. the Coop is selling energy back to the mainland).

What do I do if I have a problem with the heater? (for participants)

First, refer to the troubleshooting section in your user guide. If this does not resolve your issue, please do not hesitate to contact Adam Lachman at 863-4426 or islandenergytaskforce@gmail.com with your concern or question.

III. Billing

How will billing work?

At the end of each billing period, participants will be billed by the Fox Islands Electric Coop at the standard Coop rate for the building's total electricity usage. However, in order to simulate a variable "special tariff" that the Coop could someday offer, the project will provide a rebate to participants for part of what they were charged for their ETS heaters. Rebate checks will be issued monthly and will equal the difference between what the Coop charged participants for their heaters and what they would have paid if a special tariff had been in place. For Phase 0, the wind tariff will equal the price of wholesale electricity plus two cents, but not to exceed a total of nine cents.

III. Next Steps

What is the next phase of the project?

If the information and experience gained over the next few months show the system worked as expected and that the community is supportive, funding will be sought to expand the pilot to include a larger group of households (25 to 50) and a more sophisticated control system. This larger trial could also evaluate the use of other electric heaters and a small number of electric cars.

How do I learn more information about the pilot program and/or express interest in participating in the next phase?

Please contact Adam Lachman at 863-4426, Del Webster at 863-4454 or email islandenergytaskforce@gmail.com