



EQUINOX

Sharing Trial One Learnings– Webinar Q&A

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1. About This Document

EQUINOX (Equitable Novel Flexibility Exchange) is a Network Innovation Competition project, funded by Ofgem. Between 2022 and 2025, EQUINOX is developing novel commercial arrangements and supporting technological integrations that unlock flexibility from residential low carbon heating, while meeting the needs of all consumers, including those with vulnerabilities or experiencing fuel poverty.

December 2022 to April 2023 represented the first trial period for two novel commercial arrangements. These commercial arrangements saw domestic households who already had heat pumps installed offered financial incentives to turn their heat pump off/down for limited two-hour periods called EQUINOX events occurring on event days across the trial period.

We socialised the key findings in a webinar open to trial one participants on 21st September 2023. Questions were submitted via a Q&A function throughout the webinar. Those questions and answers from the EQUINOX team are summarised in this document.

2. Webinar Q&A

Q: What was the electricity consumption reduction saved via the heat pump power downs through the trial one?

A: Trial one participants provided 10.8 MWh of measurable electricity savings (turndown) across the 22 EQUINOX events. On average, each participant provided 1.43 kWh of turndown per 2-hour event. More information on trial one findings can be found in our second project deliverable for regulator Ofgem – [Initial Insights on the Effectiveness of Commercial Methods](#).

Q: Were participants "self-selecting"?

A: Yes, participants to the trial as well as participants who provided feedback via surveys, interviews, and focus group were self-selecting meaning they chose to participate. This is a limitation of the research and we acknowledge this as a caveat to our analysis. We expect trial two participants to be more representative of the UK population.

Q: How will the energy reduction for Trial two be calculated?

A: We will use participants' smart meter data to baseline how much energy they typically use in the hours during which EQUINOX events will be held. This baseline will then be compared to the actual energy usage during the event hours. The difference represents the energy reduction for each event. To help us understand the heating-specific impacts, participants will be encouraged only to alter heating-specific appliances in their homes during events.

Q: I am on a time of use tariff that means my heat pump will likely be off between 4-7pm. Can I still participate in trial two?

A: Yes, any customer with a heat pump and smart meter in National Grid's distribution areas with Octopus Energy, Sero, or Scottish Power as their supplier can join trial two. However, we will have a limited capacity of 1000 customers this year. Customers with time of use tariffs are already realising value from their flexibility every day and may not be able to gain as much additional benefit through the EQUINOX trial as customers who are on standard tariffs. However, we are very interested in capturing the real-life behaviour of customers on these tariffs and whether or not they are able to contribute additionally during EQUINOX events. Your feedback is valuable to the

project and all participants can earn additional incentives throughout the trial for answering surveys and being involved in interviews or focus groups.

Q: Will it be possible to measure energy saving for trial 2 payments where there's only main metering in the house rather than metering on the heat pump?

A: Yes, we will be using smart meter data to calculate energy savings.

Q: How will the new payment approach be delivered?

A: You will be compensated based on how many units of electricity (kWh) you can reduce your heating related demand by during EQUINOX events compared to your usual usage during the same hours of the day.

Q: Can you communicate events and reminders by text message as well as email please?

A: We are working to include reminders by text message or app notification for trial two in response to feedback we received from participants.

Q: Did you attempt to correlate the energy efficiency performance of properties with participation and satisfaction?

A: We did look at the impact of energy performance certificate (EPC) ratings on turndown. The event-by-event turndown for participating households was demonstrably higher for homes with a lower EPC. The average C/D home provided more than double the household turndown of the average A/B home, 1.72 kWh per event vs. 0.81 kWh per event. This is likely due to the heat pump having to work harder to heat a home with a leakier fabric. The Sero homes were all highly insulated new-build homes rated EPC A, with an average per event household turndown of 0.38 kWh. More details on this analysis can be found in Section 7.4.6 of the [Initial Insights on the Effectiveness of Commercial Methods](#) report. We plan to explore the impact of energy efficiency performance of properties further in trial two.

Q: Are you talking to manufacturers as part of the trial?

A: Manufacturers are not involved as part of the EQUINOX project. However, in time the goal is to enable more and more systems to be able to participate in heat pump flexibility like the EQUINOX trials.

Q: Is there any intention to publish an open API, so that any home energy management system could participate?

A: This is not being explored as part of the EQUINOX project. However, in time the goal is to expand to enable more and more systems to participate in EQUINOX trials.

Q: How does remote powering down of an air source heat pump work? I have a Homely control system, Can it be done through this?

A: The remote powering down for an air source heat pump that Octopus uses for EQUINOX is similar to how your Homely control system works. Currently, we can't do this via your Homely system but we are looking to expand this in the future.

Q: Can the Sero system be retrofitted?

A: Yes, the Sero system can be retrofitted. Sero is working with several social landlords to do exactly that. Currently, Sero does not offer this service to individual homeowners, but hopes to soon expand this.

Q: Where can I find out more about the Sero system?

A: You can find out more about the Sero system and the services Sero provide by visiting www.sero.life or if you have more specific questions, you can email hello@sero.life.

