

Minutes of the ECO Innovation Technical Advisory Panel

From: Roisin Curran

Date: 11 November
2021

Time: 9:00am

Location: Conference call

The technical advisory panel (TAP) has been set up to review ECO demonstration and innovation applications. It is formed by a number of independent panel members, with its Chair and Secretariat function provided by Ofgem. The TAP makes recommendations to Ofgem to approve or reject certain ECO applications. It does not, in and of itself, make any decisions to approve or reject such applications. Accordingly, these minutes provide a summary of each discrete review undertaken by the TAP as discussed by TAP members during group meetings. The TAP review is limited to the material submitted by applicants at application stage, or in subsequent correspondence, and these minutes provide a summary of the opinions offered by TAP members on the material submitted insofar as they inform the eventual recommendation made by the TAP. These minutes are reviewed by the TAP members prior to publication. These minutes do not represent a formal statement of opinion by Ofgem in regard to any product, measure, or application received by Ofgem in relation to ECO. Applicants who wish to challenge the opinions contained within these minutes may contact Ofgem directly.

Present

David Glew, Leeds Beckett University

Jason Palmer, Cambridge Energy

Neil Cutland, Cutland Consulting Ltd

Sophie Hasdell, BEIS

Kay Popoola, BEIS

Grace Reeve, BEIS

Andy Morrall, Ofgem

Eric Baster, Ofgem

Roisin Curran (Chair), Ofgem

Introductory remarks by the Chair

The Chair welcomed all panel members to the meeting. Hunter Danskin sent his apologies.

1. Innovation Measure Application: Secure Meters Smart Thermostat

- 1.1. The application relates to a smart thermostat with additional functionality in the form of a Bluetooth connection. This seems to allow the thermostat to be operated as a standard room thermostat and programmer during periods when Wi-Fi drops, or loses connectivity. It offers optimised start and load compensation. In addition, the application claims a reduced installation time due to use of a standard fixing plate, lack of a separate hub, and pairing of the devices at manufacturing stage. The product also claims a 12 year battery life.
- 1.2. The panel noted that smart thermostats relied on a Wi-Fi connection to operate, and were of the view that the majority of smart products currently available on the market were unable to function as basic heating controls if connectivity was lost. Whilst the panel agreed that without Wi-Fi connectivity the thermostat may not have all the functions to be considered 'smart', they were of the view that the ability to continue to control the heating system at a reduced functionality during these periods would be materially different and an improvement. This view is based on the assumption that the switch in connectivity modes is automatic, which was not clear in the application. As such, the panel questioned whether the thermostat automatically switches to Bluetooth once the Wi-Fi connection has dropped, or what level of interaction is required by the householder to ensure continuity of control over the heating system.
- 1.3. The panel discussed the additional claimed improvements of reduced installation time and a 12 year battery life. One panel member noted there was no evidence to support a reduced installation time, such as a timed study. However, the panel were of the view any time saved is likely to be minimal. It was therefore not considered an improvement.

- 1.4. Whilst in agreement that a longer battery life is beneficial, the panel noted that the battery is unable to be recharged or replaced, making the product disposable. It was also noted that a number of thermostats are wired and do not require batteries for operation. On balance it was felt the battery life was materially different, however not an improvement on wired smart thermostats currently available.
- 1.5. The panel agreed that the product is capable of achieving cost savings associated with smart thermostats when the householder had a Wi-Fi connection. They were of the view that the smart thermostat score would not be appropriate for properties without a Wi-Fi connection, and the improvement in reduced disruption to the householder from any connectivity issues would not be realised.
- 1.6. The panel recommended additional score monitoring questions are proposed to ensure the Wi-Fi adapter has been included, and that the property has a Wi-Fi connection.
- 1.7. The panel agreed the installation safety arrangements were reasonable, but questioned whether the boiler or heating system could still be operated in a basic on/off manner once the battery fails.
- 1.8. The panel agreed the product would have a positive impact on fuel poverty and those vulnerable to the effects of the cold.
- 1.9. The panel recommended the application is approved subject to confirmation that the device automatically switches to Bluetooth once Wi-Fi connectivity has dropped, and that the heating system could be operated once the battery fails. Additional score monitoring questions were also recommended to ensure the thermostat has the required connectivity at the point of install.

2. Additional Discussion: Demonstration Action 'Airoom' Amendment

- 2.1. The panel discussed an amendment requested for an approved demonstration action aimed at testing the cost savings associated with installing an automated airbrick in rooms. The automated airbrick is designed to open and close in response to indoor air quality and humidity levels.

- 2.2. The panel were also given an update on the progress of the Airoom project to date. The panel commended the Airoom project team for their achievements, particularly in securing such a high number of properties for the trial.
- 2.3. The approved methodology included blower door tests to be completed on a sub-set of properties to test the airtightness with the automated airbrick both open and closed.
- 2.4. The amendment requested was to use an alternative airtightness test 'PULSE' in place of the agreed blower door tests. A subset of 40 of these properties would receive both blower door and PULSE tests in order to compare the results. In summary, the reason for the amendment request was due to the concern that the increased disruption associated with the blower door tests may dissuade participants, and therefore impact delivery of the agreed methodology.
- 2.5. The panel noted that these concerns were based on assumptions, and not actual issues encountered. The evidence provided in support of the PULSE test was largely in relation to relatively newer buildings, and some panel members would have preferred additional assurance on the appropriateness of the test in relation to the properties in the demonstration action. One panel member noted the request did not include a proposal for how the applicant intended to account for, or deal with, any potential uncertainty arising from the before and after PULSE tests.
- 2.6. The panel also discussed the intended use of the results from the airtightness test. Whilst they agreed that airtightness was an important measure of the products performance, they understood the results would not be used to determine the cost savings achieved by the product – which is one of the main criteria for demonstration actions.
- 2.7. On balance, the panel agreed the evidence provided sufficient assurance for tests that were superfluous to meeting the main criteria of the demonstration action, particularly as a subset of properties would have both tests completed for comparison.
- 2.8. The panel recommended the amendment request was approved, provided any uncertainties from the PULSE test are accounted for in the independent report.

3. Date of next meeting

3.1. The next meeting of the TAP is scheduled for 10 March 2022.