Minutes

Making a positive difference for energy consumers

Minutes of the ECO4 Innovation Technical Advisory Panel 5

From: Victoria Truelove	Date: 13 September 2023 Time: 09:00 – 12:30	Location: Conference call

A technical advisory panel (TAP) has been set up to review innovation measure applications and make recommendations to Ofgem to approve or reject 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 IM 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.

1. Present

Adrian Hull, (Panel Member) THS Inspection Services

Cliff Elwell, (Panel Member) University College London

David Glew, (Panel Member) Leeds Beckett University

Jason Palmer, (Panel Member) Cambridge Energy

Hunter Danskin, BEIS

Kay Popoola, BEIS

Andy Morrall, Ofgem

Eric Baster, Ofgem

Reuben Privett (Chair), Ofgem

Victoria Truelove (Secretariat), Ofgem

2. Introductory remarks by the Chair

2.1. The Chair welcomed all panel members and attendees to the meeting and noted Paul Phillips, TrustMark representative, sent apologies.

3. Innovation Measure Application: DuraShield Pro Rockwool EWI

3.1. The application is for an External Wall Insulation (EWI) system with increased durability, demonstrated by impact testing, and a QR code at each installation which directs users to a website containing all relevant documentation specific to each installation. The application is for a substantial innovation measure.

3.2. No concerns were raised about the certifications or installation standards.

3.3. No concerns were raised about the comparable measure selected.

3.4. The TAP noted that the quality of the application was high, with a good level of detail provided.

3.5. The TAP discussed the QR code, and noted that there is no guarantee that the website housing the documentation would be available beyond the 25 year initial period. They

suggested that this would need to be clarified by the applicant, and noted that a legacy website may be employed to ensure that the facility is available in the future.

3.6. The TAP discussed whether the website would include a digitised record of inspections and maintenance.

3.7. The TAP was of the view that a digitised record was an improvement over the comparable measure and would enable homeowners to keep track of important documents related to the installation. The TAP was of the view that this could lead to fewer instances where the system is damaged by incorrect paint being applied, or incorrect fixings being installed by the homeowner.

3.8. The TAP was of the view that the claims included in the increase in annual bill savings criterion should be considered under the increased durability criterion. They noted that comparing the system to a damaged standard system was not an appropriate comparison.

3.9. The TAP discussed the claims included under the increased durability criterion, and were of the view that robust evidence had been provided. The TAP discussed the 5 yearly inspections provided by the manufacturer, as well as the higher impact resistance, improved fixings and strengthened checks prior to installation. The TAP was concerned about inspections not continuing beyond the 26 years outlined in the application – ideally 5-yearly inspections would continue for 60 years. The TAP was of the view that a substantial improvement had been demonstrated against the criterion.

3.10. The TAP discussed the additional quality assurance offered by the technical sign-off by EWI pro through their app before the next installation phase can begin and noted that this was an additional benefit. They queried how it was ensured that the installer did not go ahead with installation without sign-off from EWI pro.

3.11. The TAP noted that the claimed improvements under the other criterion were already assessed in the increased durability criterion.

3.12. In the Q&A, the TAP queried whether there was a mechanism in place to ensure the website to which the QR code directs would still be available up to 60 years after the product's installation. The representative offered to provide additional clarification in writing after the meeting.

3.13. In the Q&A, the TAP queried whether the deep substrate humidity checks are conducted on every house and on each wall, whether there is a threshold to reach before the EWI can be installed, and whether results are normalised across the year. The representative stated there is a threshold. The representative also stated that checks would be done on a proportional basis depending on house type and area. Where houses have individual features, the checks would be carried out. The representative stated that the humidity checks were normalised across the year. The representative offered to follow up with more detail in writing.

3.14. In the Q&A, the TAP queried whether the pull out tests would be conducted on each wall. Similar to the previous response, the representative noted that this would be carried out proportionally and would be done on a case by case basis through communication with the installer. The representative explained the different data points considered when a decision is made on whether to undertake the tests on a particular property.

3.15. In the Q&A, the TAP queried whether the 5 yearly inspections would continue after year 25, in line with the warranty provided. The representative confirmed that inspections would be carried out up to year 60 and the costs would fall to the manufacturer.

3.16. In the Q&A, the TAP queried whether there was a mechanism in place to ensure that installers did not go ahead with the next stage of installation without the necessary

approval from the manufacturer. The representative gave an overview of their internal process, and stated that both announced and unannounced visits would be made by technical managers to between 5-10% of sites to ensure that processes are being carried out properly.

3.17. In the Q&A, the TAP queried whether all components in the system are expected to last for 60 years, what the procedure for replacing them would be, and who bears the cost. The representative stated that the SWIFIX fixings should last for 60 years, but the sealing tape may not. The representative offered to follow up with more detail in writing, but stated that the cost of replacement would fall to the manufacturer.

3.18. The TAP recommended that the DuraShield Pro Rockwool EWI system be approved for a substantial innovation measure, subject to satisfactory clarifications being provided by the representative after the Q&A.

4. Innovation Measure Application: Radbot

4.1. The application is for a thermostatic radiator control valve that adjusts the heating pattern of a room based on room occupancy, to optimise energy savings through the usage of environmental sensors and a self-learning algorithm.

4.2. Previous history related to the application was outlined by the chair, as the product taking part in an ECO3 Demonstration Action project and a rejection under TAP3.

4.3. No issues were raised in relation to the installation standards.

4.4. The TAP discussed at length TTZC measure functionality commonly encountered within products in the market, noting the control over the timing and temperature via a central control element within specific zones of a home as key features, with potentially higher savings from a more traditional TTZC zone-control approach.

4.5. The comparison in costs across TTZC measures available on the market was discussed by the TAP, with a panel member highlighting the costs detailing was of high quality.

4.6. The TAP discussed different connectivity methods available for TTZC measures within the market, noting some other systems employ Bluetooth as a safeguard for where WIFI is not available.

4.7. The TAP was of the view that the product under application did not present an improvement over comparable measures in the TTZC measure type given the reduction in control for the homeowner over time and temperature controls. The TAP was of the view that scoring under the TTZC measure type already favourably reflected the reduction in the cost of heating the home that this product provides.

4.8. The panel discussed the features outlined by the applicant, noting that overall the claims did not represent an improvement over the comparable measure, and was in consensus that the application should be rejected.

5. Innovation Measure Application: SuperFoil IWI

5.1. The application is for a light-weight, flexible multifoil insulation material for Internal Wall Insulation (IWI). The multi-foil insulation includes a dual vapour control layer which offers protection against interstitial condensation.

5.2. The chair provided an overview of clarifications presented by the applicant in response to previous TAP feedback, provided following previous application rejection.

5.3. The TAP discussed the u-value calculations provided by the applicant, and the dependency of these on the sealing of the air gap.

5.4. The updated installation diagrams were noted by the TAP as being fuller and of higher quality. The detailing provided for insulating roof areas was discussed and noted by the TAP as limited to a particular roof type. Additional detail on flat roofs would be beneficial in order to demonstrate how the system can be sealed in a range of scenarios, particularly as the u-values are contingent on a sealed cavity being maintained. The TAP suggested that in order to demonstrate the air tightness of the system, air leakage tests using a smoke pen would be required to demonstrate complete sealing of the system given the u-value is reliant on the integrity of the system to maintain an unventilated cavity.

5.5. The approach for sealing at floor level, variations in underfloor voids and property archetypes, ventilation requirements, and impact on delivery timings were discussed at length by the TAP. The TAP queried the potential for a chimney effect and the range of underfloor void types for which the product would be suitable, and the absence of detailing for suspended timber floors with joists perpendicular to the insulated wall. The current detailing did not demonstrate a sealed system which would avoid moisture risk and enable the U-value to be realised.

5.6. The TAP was in consensus the flowchart diagram remained difficult to follow and presented inconsistencies.

5.7. The TAP noted in-situ u-value evidence and additional quality assurance testing could strengthen the application.

5.8. Potential risks of penetrating the system, such as retrofit ventilation, or a flue were discussed by the TAP. It was noted that the applicant had warned against post-installation application of these features and the TAP questioned how the integrity of the system could be maintained when the homeowners made subsequent changes to the building fabric.

The TAP discussed the approach for insulating wet rooms, as defined by the BEIS best practice guidance.

5.9. The TAP was of the view that alterations are required before the application can be considered for an innovation uplift. A new application which addresses the TAPs concerns and reflects the changes that have been made to the product should be made.

6. AOBs

6.1. The chair discussed with the TAP the process for reviewing and inputting into applications and clarifications offline.

7. Date of next meeting

7.1. The next meeting of the TAP is scheduled for 22 November 2023, the last planned TAP meeting for 2023. Upcoming TAP meetings for 2024 will be published later in the year on our website.