

Minutes of the ECO Innovation Technical Advisory Panel

From: Roisin Curran

Date: 24 November 2020

Location: Conference call

Time: 9:00am

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

Kate Fielding, BEIS

Kay Popoola, BEIS

Grace Reeve, BEIS

Eric Baster, Ofgem

Andy Morrall (Chair), Ofgem

Roisin Curran (Secretariat), Ofgem

Introductory remarks by the Chair

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

1. Innovation Measure Application: Smart Fix Systems RIRI

- 1.1. The application relates to a RIRI system comprised of Aerogel insulants to reduce the thickness of the insulation boards, with pre-fabricated insulated socket boxes (Smart Fix Services Panel) to reduce cold bridging.
- 1.2. The panel agreed the product was materially different, and is capable of achieving cost savings.
- 1.3. The panel agreed the product is an improvement on measures currently delivered under ECO as the reduced thickness of the insulation would allow RIRI to be installed in smaller roofs, or those with lower ceilings. It would also reduce space lost for insulation in larger roofs. The insulated socket boxes provide an additional benefit by reducing thermal bridging and improving the overall quality of the installation. The panel would welcome an application using aerogel even without the socket boxes.
- 1.4. The applicant claimed the product did not require wet trades prior to painting, however the panel noted aspects such as visible screws, taped edges, and level of dust produced during installation may result in wet trades being required. The panel suggested that if the applicant wished this feature to be included as part of the innovation, evidence to demonstrate the final finish in comparison to other RIRI installations should be provided.
- 1.5. The panel noted the time saved from the use of the Smart fix services panels was based on estimates, whereas the time taken for standard RIRI installations was measured on site. Although the panel were of the view that using pre-fabricated socket boxes would likely reduce installation times, they did not feel it was appropriate to compare estimated values with measured values. The panel suggested if the applicant wished to include this feature as part of the innovation application, evidence of the time saved on site should

be provided. The panel also requested further information on the design of the services panel for light fittings.

- 1.6. The panel requested additional technical and score monitoring questions were proposed by the applicant to confirm both the Aerogel and Smart fix services panels were used in the installation. One panel member questioned whether the rigid, friable nature of the boards would create difficulties in ensuring there were no gaps at abutments, and suggested the applicant consider whether a technical monitoring question should be introduced to address this.
- 1.7. The panel agreed that safety during installations had been considered in the method statement with the specified use of personal protection equipment (PPE) when working with Aerogel.
- 1.8. The panel recommended the application is approved subject to clarifications on technical and score monitoring, and evidence to support the time savings and lack of wet trades if the applicant wishes these features to be included.

2. Innovation Measure Application: SWIP Loft Storage

- 2.1. The application relates to a loft insulation system, which includes storage using insulated beams.
- 2.2. The panel agreed the product was materially different to loft insulation measures currently delivered under ECO, as the system was designed to incorporate storage without creating thermal bridges. It was noted that some loft insulation measures may have had storage added, however this product provides additional quality assurance with the storage being incorporated as part of the system.
- 2.3. The panel agreed the product is capable of achieving cost savings, and an improvement on measures currently delivered under ECO. The addition of storage reduces disruption for householders, and increases the longevity of the insulation by reducing the risk of compression.
- 2.4. The panel agreed the proposed technical monitoring questions were suitable, however suggested additional score monitoring questions were proposed to ensure the product

had been fully installed (including the insulation roll itself), and to determine the percentage of property treated with the system.

- 2.5. The panel noted the applicant had considered many of the risks and safety aspects for the installation, including the 50mm air gap for ventilation between deck and insulation. However, they raised a query about the suitability of the beam material in regard to fire safety, and requested further assurance that the product meets all the relevant standards and regulations.
- 2.6. The panel agreed the product would have a positive impact on fuel poverty and those vulnerable to the effects of the cold.
- 2.7. The panel recommended the application is approved subject clarifications on whether the system meets all the relevant standards and regulations, and score monitoring questions.

3. Innovation Measure Application: UKSOL Optimised Solar PV

- 3.1. The application relates to a solar PV panel with an integrated optimiser to reduce the impact of shading.
- 3.2. The panel agreed the product was materially different to those currently delivered under ECO. The applicant was able to satisfy the panel that previous PV installations under ECO did not include optimisers.
- 3.3. The panel agreed the product was an improvement on measures currently delivered, as it improved the efficiency for properties that were subject to shading for part of the day, and would allow delivery in previously unsuitable properties. The panel also noted the integrated system may improve reliability and performance compared to those where a different brand of optimiser is added during installation.
- 3.4. The panel agreed the product was capable of achieving cost savings in properties where the main heat source was electric.
- 3.5. The panel were satisfied that safety had been considered, as the product had MCS certification, and improved fire protection.

- 3.6. The panel agreed the product would have a positive impact on fuel poverty and those vulnerable to the effects of the cold.
- 3.7. The panel recommended the application is approved.

4. Innovation Measure Application: Webertherm EWI

- 4.1. The application relates to an EWI system which claims a reduced installation time due to a reduction in the number of coats applied, and faster drying times.
- 4.2. The application claimed that the product is materially different as a primer coat is not required, and the installation can be performed faster due to improved drying times. The application compared the product to an EWI system that used a different Webertherm base coat. No comparison was made between other products on the market using scratch coat renders, and other silicone renders that do not require a primer. The drying times quoted in the application were inconsistent, and which coat they related to was unclear. The panel suggested using the maximum drying time at 5°C for each coat would provide a more useful comparison with alternative renders on EWI systems. Timings for applying the five products needed for the finish/decorate layer were also absent.
- 4.3. The application claimed the product was an improvement on current EWI systems as the decreased drying time between coats allowed additional properties to be treated. It was unclear why an installer would be unable to continue other EWI installations whilst the coats were drying, and the panel requested further detail on how the drying time would impact the number of installations completed. Installation costs were also cited as an improvement due to the removal of a layer, however as above, it is unclear how this differs from other EWI systems currently on the market.
- 4.4. It was unclear whether the product would have any additional impact on fuel poverty and those vulnerable to the effects of the cold in comparison to standard EWI measures.
- 4.5. The panel recommended the application is referred back to applicant to provide clear and detailed comparisons on the material difference and improvement aspects of the product.

5. Innovation Measure Application: Schneider Wiser Smart HCs

- 5.1. The application relates to a smart thermostat used alongside smart TRVs.
- 5.2. The panel agreed the smart TRVs were materially different to standard TRVs, as they allowed heating schedules to be set for individual rooms.
- 5.3. One panel member questioned the claimed saving of 24% for 'away mode', as it was unclear how cost savings could be achieved during times when the heating system is expected to be off.
- 5.4. The panel requested more information on the functionality of the TRVs, and if they could be operated manually. It was unclear the level of engagement required with the associated app, and whether the householder would need to have sufficient technical skills to operate the system. It was also unclear how long batteries would last on average, whether the TRVs were fully open or closed when batteries are depleted, and if batteries were required in order to adjust the TRV settings.
- 5.5. The panel voiced concerns that a lack of proficiency in using mobile devices, or engagement by the householder may increase heating costs compared to standard TRVs. There were also concerns that if batteries were not regularly replaced, the householder would see increased costs - particularly if the product was replacing standard TRVs. The panel requested clarification on how the applicant will ensure the product is only installed in appropriate households, and what safeguards are in place for the product.
- 5.6. The panel agreed the proposed score for smart thermostats was not appropriate for the product, and suggested a further conversation with Ofgem was required to determine a more appropriate score.
- 5.7. The panel felt additional score monitoring questions should be proposed to ensure the householder is able to operate the system, and whether the TRVs have been installed to 100% of the property.
- 5.8. The panel had concerns that rooms, in particular kitchens and bathrooms, may be heated to a lower temperature following installation. It was suggested a pre-installation risk assessment be completed to identify any rooms with existing damp or condensation

issues, and suitable mitigation measures such as additional ventilation and/or heating safeguards be implemented prior to installation (or, in the case of heating safeguards, perhaps as an algorithmic feature of the TRVs).

- 5.9. The panel recommended the application is referred back to applicant for more detailed information on the operation of the product, the safeguards in place, and score monitoring questions.

6. Date of next meeting

- 6.1. The next meeting of the TAP is on Tuesday 16 March 2021 via conference call.