Minutes

Making a positive difference for energy consumers

Minutes of the ECO4 Innovation Technical Advisory Panel '3a'

From: Victoria Truelove	Date: 26 April 2023 Time: 09:00 – 13:00	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

Owain Rees-Jones, 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.

3. Application 1 - Scottish Power – Soltherm Modulus Brick-ID

3.1. The application is for a brick-effect rainscreen system manufactured offsite and BDA approved for masonry substrates, to be considered against the substantial improvement criteria for award of a 45% uplift.

3.2. Previous history related to the application was outlined by Ofgem as being approved under ECO3.

3.3. The TAP discussed installation approaches to the damp proof course (DPC) area, and the thermal bridging and heat loss risk EWI installations can have, through building perimeters, with any concerns around DPC damp risk needing to be adequately addressed as part of measure delivery.

3.4. The treatment for reveals around window and doors during measure delivery was discussed by the TAP, alongside PAS2030 and PAS2035 standards, and BBA certification for the product. Discussion included usage of verge extenders and its interaction with EWI systems.

3.5. Detail on product thickness to achieve proposed u-value improvements was noted by the TAP as not being specified within the application, with clarification around product thickness and u-value improvements being highlighted as required to support product claims. The TAP discussed the inclusion of matrices describing product thickness and u-values in BBA certificates.

3.6. The TAP discussed the u-value improvements required during retrofit, building standard requirements in devolved GB nations, and how exemptions or restrictions may apply to retrofit project specifications.

3.7. The comparable measure employed was noted by TAP members as being uncommon, with simpler and faster alternatives being achievable with a simple render.

3.8. The TAP discussed the overlap between claimed decreased cost of installation and durability claims.

3.9. The TAP was in consensus the durability claim was clearly outlined by applicant. The costings were noted as being in-line with expectations. Additional evidence to support the mechanism for achieving a product lifetime, such as a longer warranty and/or comprehensive maintenance and inspection plan where costs do not fall to homeowners, was noted as being able to strengthen the application.

3.10. The inspection routine and coverage outlined in the submitted warranty was discussed by the TAP in relation to ECO and suitability for ECO householders. Previous applications claiming improved lifetimes were noted by the TAP as having provided detailed inspection and maintenance regimes to support enhanced product lifetime claims.

3.11. Given the bespoke nature of the system, the TAP highlighted the need for a detailed approach to repairs and overview of the party responsible.

3.12. Environmental claims made by applicant were evaluated by the TAP against the comparable measure stated, with the end-of-life solution for the product being noted as not being clearly outlined. Strong supportive evidence against this criterion could be a full LCA.

3.13. The TAP found evidence to support claims around reduction in disruption to householders was weak. Additional evidence to reflect delivery in real life scenarios could be employed to support claims against this criterion and strengthen the application.

3.14. Potential limitations around storage requirements, and the putting together of the bespoke EWI system under application were considered by the TAP, particularly in relation to householder disruption and reduced time of installation.

3.15. The TAP discussed the impact of a 25% time reduction in measure delivery across the domestic housing stock, particularly when delivering to premises such as tower blocks.

3.16. A Q&A was not held with representative(s) for this application.

3.17. The TAP was of the view the product under application should be rejected for a substantive improvement with feedback.

4. Application 2 – Scottish Power – Soltherm Dynamic EWI

4.1. The application is for a BDA approved mineral wool EWI system for use on timber, steel, and masonry substrates, with or without breather membranes, for consideration as a standard IM.

4.2. No previous history related to the application was outlined by Ofgem.

4.3. The TAP noted deliverable system thickness to achieve required retrofit u-values, and approach to insulating below the DPC and around reveals was not stated by the applicant.

4.4. The TAP recognised that Agrement certificates can differ in content and detail, dependant upon the Certification Body utilised. Where Certification does not include core information such as thermal performance and details on application of products, the TAP is likely to ask for further information from applicants.

4.5. The TAP discussed the claims made by the application on increased impact resistance and wind load performance, increased range of property archetypes to which it is deliverable, and improved fire rating and evaluated against the comparable measure, keeping in mind the approach to how a fire rating is awarded.

4.6. Functioning and coverage of the warranty on mixed substrate property archetypes was discussed, and property archetypes to which system deliverability would present an improvement was considered by the TAP.

4.7. The TAP noted specific paint types to sustain the non-combustibility of the system had not been outlined, which could impact fire rating improvements if householders were to change the exterior aesthetics of the property. The TAP queried how the manufacturer could ensure correct non-combustible paint usage over time.

4.8. The TAP discussed the extent to which it is common for a cavity to be employed behind EWI, and the impact this cavity would have on the system.

4.9. The TAP was of the view that results from impact testing and the fire rating were positive and supported improved durability claims, which coupled with the range of property archetypes to which deliverable, could support EWI delivery in the retrofit market.

4.10. The TAP discussed the annual inspection regime requirements outlined by the applicant to ensure the product warranty remains valid. The TAP noted the costs would fall on the householder. The TAP was of the view inspection frequency, inspection competency requirements, and provision of an annual written report would be unsuitable for households eligible for ECO and required additional clarification on this point.

4.11. Interactions of the TrustMark insurance backed guarantee with the warranty provided for the system was discussed by the TAP. The evidencing required from householders to ensure warranty validation was further explored .

4.12. A Q&A was not held with representative(s) for this application.

4.13. The TAP was of the view the product under application required additional clarifications in order to be recommended for an innovation uplift.

5. Application 3 – EON – Radbot

5.1. 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.

5.2. Previous history related to the application was outlined by Ofgem, as the product taking part in an ECO3 Demonstration Action project.

5.3. The TAP discussed features provided by smart thermostat measures, noting these enable control of the time of use and additional connectivity as a key feature. The TAP was in agreement standard TRV measures would be a suitable comparable measure.

5.4. The heating periods of the system under application were discussed by the TAP, and whether the product could pre-empt heating prior to occupancy was queried, highlighting the potential loss of optimum start functionality with boilers, when compared against a smart TRV system.

5.5. The TAP noted a learning cycle of the system algorithm had not been outlined within the application, nor whether heating control features are present.

5.6. The TAP outlined requirement of batteries and discussed system functioning and efficiency without battery replacements. Whether the system failed open or failed closed was queried by the TAP, noting a fail open system may not provide any savings for measure delivery.

5.7. Evidence submitted against the improvement criteria was evaluated by the TAP, noting additional detail would be required to support claimed improvements against cost savings criterion, with a comparison made against a non-smart TRV system, in line with the features the system provides.

5.8. The TAP discussed potential benefits, if the product under application was compared against standard TRVs, such as the enabling of a setback to a baseline temperature in areas such as bedrooms, which could ensure temperatures weren't too low.

5.9. The principles underlying the system under application were highlighted by the TAP as potentially being very specific to particular types of homes and families. Appropriateness for all ECO households was discussed and the set-back temperature, highlighted as needing to be appropriate for when there are individuals such as babies that cannot create sufficient vapour to trigger the occupancy sensor which uses humidity.

5.10. The Demonstration Action trials and the project goals under ECO3, were considered by the TAP, and evidence submitted from the Radbot Demonstration Action project discussed.

5.11. The TAP discussed product installation and noted whether valve replacements would also be encompassed, noting the radiators would need to be drained for the changing of a valve, which would impact time savings.

5.12. The TAP was of the view the period of warranty provided by the applicant seemed positive.

5.13. A Q&A was not held with representative(s) for this application.

5.14. The TAP was of the view the product under application should be rejected with feedback, with an application providing evidence of improvements against standard TRV measure being required for an accurate product evaluation.

6. Application 4 – British Gas – Superfoil SF19+

6.1. 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.

6.2. Previous history related to the application was outlined by Ofgem as the product being submitted under a TAP1 application.

6.3. The TAP discussed the responses to clarifications which had been requested after the previous application had been rejected.

6.4. The TAP agreed that some of the moisture and air gap clarifications were useful, such as points made around air changes in the hygrothermal decision process. However, they noted that the interstitial condensation advantages described by the applicant would not be supported where the product is not correctly sealed at ceiling and floor level. This may give rise to increased risk during delivery.

6.5. The TAP was unsatisfied with elements of the installation guide which remained incomplete. Particular attention was given to the flowchart within the guide which the TAP felt did not provide a clear indication of how homes were found to be unsuitable for the product. The TAP also noted that the installation guide did not provide clarity over the approach taken at door and window reveals, where there are suspended timber floors, or in sensitive spaces such as wet rooms.

6.6. The TAP noted that there was no mechanism in place to ensure the product is not delivered to a property which is deemed unsuitable, such as in medium or high exposure zones. The TAP queried the approach to assessing whether properties are suitable for the product using a model rather than individually assessing each property. The TAP was unclear as to where and under what conditions specific moisture assessments would be undertaken.

6.7. The TAP discussed the testing standard IP06 described within the BBA for removing non-repeatable thermal bridges, with BR443 being highlighted as potentially more suitable by the TAP. Alterations in modelling descriptions were agreed as suitable.

6.8. The TAP acknowledged the benefits presented by reduced transportation requirements and reduced householder disruption during system delivery derived from the lack of dust created. The detailing around switches was acknowledged.

6.9. The TAP was not satisfied that the clarifications provided in relation to reduced installation time provided additional evidence which had been noted during the previous TAP. The TAP acknowledged that moisture resistive measures are required regardless of the IWI.

6.10. The TAP discussed the additional information provided in relation to achieving u-values, and were not satisfied with the calculations provided. In particular, the application of the r-value was discussed in relation to BR443. The TAP discussed the TRISCO calculations contained within the application.

6.11. The TAP was of the opinion that the clarifications did not demonstrate that the product could meet the required u-value without the installation of PIR boards.

6.12. The TAP discussed contradictions of the system outlined within the application, in particular the product being vapour closed and BEIS best practice guide stating moisture open should always be employed to traditional buildings.

6.13. The TAP was of the view additional clarifications on the installation guide, moisture analysis requirements, and achievement of the 0.3 u-value would be required, such as a breakdown of u-value calculations together with assumptions made.

6.14. A Q&A was not held with representative(s) for this application.

6.15. The TAP was of the view the clarifications received with this application had not sufficiently addressed their concerns after TAP 1. The TAP would like to see additional detail before making an assessment on substantial improvement claims.

7. AOBs

7.1. Ofgem discussed with TAP members the approach to notating different models of Solar PV.

8. Date of next meeting

8.1. The next meeting of the TAP is scheduled for Wednesday 3 May 2023. This additional meeting has been scheduled in addition to the planned TAP meetings published on our website, due to the large volume of applications received for this application round.