Minutes

Making a positive difference for energy consumers

Minutes of the ECO4 Innovation Technical Advisory Panel 7

From: Reuben Privett	Date: 14 February 2024 Time: 09:00 – 13:30	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

Paul Phillips, TrustMark

Kay Popoola, DESNZ

Hunter Danskin, DESNZ

Eric Baster, Ofgem

Reuben Privett (Chair), Ofgem

Ajay Patel (Secretariat), Ofgem

2. Introductory remarks by the Chair

2.1. The Chair welcomed all panel members and attendees to the meeting.

3. Innovation Measure Application: Anglo Solar PV

3.1. The application is for a solar PV panel with factory fitted optimiser which aims to increase power output and reduce damage caused by shading. The application details additional benefits offered by the TAP/CCA module fitted as standard to the system and at no additional cost to the homeowner or occupier. The application is for a substantial uplift.

3.2. The chair highlighted similarities between this application and the previously approved IM022.

3.3. The TAP raised no concerns around installation standards. The TAP raised no issues with the comparable measure selected.

3.4. The TAP discussed the claimed increase in annual cost savings and was of the view that further evidence and data on the savings achieved would strengthen the application. The TAP highlighted that the quoted 36% saving is misleading, it refers to a 36% reduction in solar shading losses rather than a 36% increase in outputs. The evidence also relates to a

paper where all systems were fitted with optimisers – the savings are estimated, not measured.

3.5. The TAP discussed the decreased cost of installation of the product. The TAP noted that as a proportion of the entire project, cost savings derived from a cheaper single string inverter were minimal. The TAP raised a concern about the requirement for installers to register the system twice and commented that the registration process could benefit from being more streamlined.

3.6. The TAP agreed with the increase in durability of the product in principle, recognising the faults of non-optimised panels, but highlighted the lack of data and issues with the evidence provided for reduced degradation of the optimised panels. The TAP recognised the benefits of remote monitoring for detecting any issues with the system. The TAP was supportive of the extended warranty.

3.7. The TAP discussed the additional safety features of the optimiser. No clear differences between this application and the approved IM022 were identified.

3.8. The TAP recommended that the application be awarded a substantial uplift, given the equivalence to the previously approved IM022.

4. Innovation Measure Application: Trianco Activair ASHP

4.1. The application is for an air source heat pump (ASHP) with a built in SIM with free-to-end-user data and free manufacturer diagnostic and configuration support for 5 years. The ASHP also uses an R290 refrigerant. The application is for a substantial uplift.

4.2. No previous history related to the application was raised by the chair.

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

4.4. The suitability of using comparable measures with the R32 refrigerant was discussed by the TAP. The TAP recognised that the adoption of R290 refrigerant was beneficial but that many of the comparable measures are also moving towards using lower GWP refrigerants.

4.5. The chair highlighted that where cost savings are already captured by the ECO4 full project score (FPS), they will not be considered, as per the NMAP guidance 4.123. As such, no improvement was demonstrated in relation to the increased annual cost savings criterion.

4.6. The TAP discussed the claims in relation to decreased cost of installing the measure. They were of the view that detailed evidence had not been provided which demonstrated that remote monitoring capabilities are not available on the comparable measure. The TAP was of the view that insufficient evidence was provided to demonstrate that in practice, the installation times and costs were reduced by the inclusion of the remote commissioning capabilities. This evidence should be derived from real-world data and include costings for the additional authentication process by a Trianco engineer, which would likely increase the cost of installation relative to the comparable measure.

4.7. The TAP discussed the claims in relation to increased durability of the measure. The TAP was of the view that any benefit related to achieving the correct flow pressure would only marginally increase the circulation pump life, which is an easy and relatively cheap part to replace. The evidence provided to support the claim that pump life is adversely affected by water pressure was not robust.

4.8. The TAP was of the view that the evidence provided in relation to the frequency of pinhole leaks in central heating systems was not robust, and also related to freshwater systems. The TAP was of the view that strong evidence needs to be provided which quantifies the

frequency that pinhole leaks occur in a comparable ASHP central heating system and that improvements offered by the product under application ensure that these issues do not occur.

4.9. The TAP acknowledges the benefit of remote monitoring support but that any issues were more likely to occur after the initial free 5-year period and therefore the benefit is marginal.

4.10. The TAP discussed the claims made in relation to the improvement in environmental impact of the measure. They agreed that moving towards a refrigerant gas with lower GWP is beneficial but noted that other measures in the market are doing the same. The TAP was of the view that more robust evidence would be needed to demonstrate that this product has deployed a lower GWP refrigerant while the comparable measure has not.

4.11. The TAP discussed the improvements claimed under the other improvement criterion. The TAP discussed the error trigger points in detail and were of the view that not enough information had been provided to illustrate how these trigger points worked in practice. Additional detail is needed to demonstrate the necessary actions from the homeowner when a trigger point is reached, how it will be ensured that action is taken, and how the triggers are communicated. This is particularly significant for ASHPs given the inefficient operation of an ASHP may lead to higher bills for the homeowner.

4.12. The TAP raised concerns around the mechanism for how any errors are remediated, who the costs fall to, and how it is ensured that the homeowner does not incur any costs. The TAP acknowledged that the applicant stated the costs would fall to the installer, but insufficient detail was provided to demonstrate how this was ensured and what kind of remediation was covered for the homeowner or occupier.

4.13. The TAP discussed the extended warranty and felt there was insufficient detail on what this covered. In particular, they noted that no detail had been provided to demonstrate what would happen when the occupier changed and the system configuration needed to be altered. The TAP questioned whether there would be any cost to the homeowner when a new occupant moves in. The GDPR considerations in this instance were also questioned.

4.14. The TAP was unclear as to how the trigger points would work in practice and would like to see real-world data demonstrating how frequently an alert would go off and how they would be remediated. They considered that in some circumstances the alerts could go off relatively regularly. The TAP noted that the trigger points were set around efficiency rather than occupier comfort. As such, it was suggested that the triggers could be hit on a regular basis when additional energy is required to maintain a warm home.

4.15. The TAP questioned whether the installer can change the settings and flow temperature on the heat pump or if this was only possible through the manufacturer.

4.16. The TAP discussed the inclusion of relatively humidity sensors and were of the view that insufficient detail had been provided to assess whether this was an improvement in practice. The TAP discussed number and placement of sensors, whether the batteries would require changing, over what period relative humidity would be assessed, and the remediation steps were the humidity trigger point reached. The TAP was of the view that it had not been tested in practice and as such the benefit could not be assessed. They were of the view that the trigger point for relative humidity would frequently be reached.

4.17. The TAP discussed the warm link app and felt that insufficient detail had been provided to demonstrate its capabilities and the extent to which the ASHP can be controlled remotely.

4.18. The TAP noted that no evidence was provided which supported the claim that the incorrect PCDB number was frequently notified on SAP assessments.

4.19. The TAP highlighted that the application claimed the additional commissioning process would validate the savings of the product. In practice, the TAP felt that numerous factors contribute to whether an ASHP achieves the claimed SCOP and a more robust commissioning process would not provide assurance that a higher efficiency will be reached. However, a secondary check during the commissioning process may increase confidence that the stated flow temperature can be achieved.

4.20. The TAP was of the opinion that there was insufficient evidence detailing how the system worked in practice in order to come to a judgement on the extent of the improvement. The TAP recommended that the product be rejected with substantial clarifications, acknowledging that a reapplication may be worthwhile should the additional information be provided.

5. Innovation Measure Application: Vaillant aroTherm ASHP

5.1. The application is for an ASHP with a 12-year service and maintenance plan included at no cost to the homeowner or occupier. The application is for a standard uplift.

5.2. No previous history relating to the application was raised by the chair.

5.3. No issues were raised in relation to the installation standards or the comparable measure.

5.4. The TAP queried the inclusion of free commissioning as an improvement and noted that this would be undertaken during a normal installation.

5.5. The TAP discussed the claimed cost savings and noted that the figures were favorably presented and demonstrated an improvement over the comparable measure.

5.6. The TAP questioned the funding mechanism for the 12-year maintenance plan.

5.7. The TAP questioned whether there was a robust mechanism to ensure that the annual service was carried out and the warranty remains valid. In particular, the TAP queried what would happen where the occupant changes and it is necessary for the servicing team to contact a new homeowner. The TAP was of the view that it should be clear to the homeowner that the servicing and maintenance is free for the first 12 years to ensure this is taken up.

5.8. In the Q&A, the TAP questioned why the application claimed free commissioning as an improvement. The representative outlined the additional commissioning check during which a Vaillant engineer attends the home after installation to ensure a high-quality installation.

5.9. In the Q&A, the TAP asked for additional detail on what the proactive booking service consisted of, in order to ensure that maintenance and servicing was undertaken on the ASHP. The representative outlined the approach including four attempts to contact the occupier via telephone, email, and mail. They would also reiterate to the occupier that servicing is free. The TAP was satisfied with this response.

5.10. In the Q&A, the TAP questioned whether if no response was received in one year, would four attempts still be made the next year. The representative confirmed that this could be implemented.

5.11. In the Q&A, the TAP questioned whether the warranty would be invalidated when servicing is missed, and whether there is a threshold at which point the warranty will be invalidated. The representative confirmed there may be allowances for household churn.

5.12. In the Q&A, the TAP questioned the funding mechanism for the maintenance plan. The representative confirmed that no cost was passed on to the homeowner or occupier.

5.13. In the Q&A, the TAP questioned the type of water cylinder used, and whether this would be installed in every instance. The representative gave detail on the type of cylinder used and that it would be installed where the existing cylinder is incompatible, which is a common occurrence.

5.14. The panel recommended that the product be approved for a standard innovation measure, subject to written confirmation of the points raised in the Q&A.

6. Innovation Measure Application: JUB 60 EWI

6.1. The application is for an EWI system offering enhanced product lifetime and a 60-year maintenance plan. The application is for a standard uplift.

6.2. Previous history related to the application was outlined by the chair.

6.3. The TAP highlighted the importance of the site visit reports as a Quality Assurance check to assess the quality and process of installation. The TAP sought clarification for both what constitutes an "authorised representative" capable of conducting these site visits, as well as the system for documenting site visits.

6.4. The TAP queried the language used in response to Q14: Evidence to be held by suppliers. The TAP noted that the evidence held by suppliers would have to be retained in order to demonstrate the product was installed in accordance with the 60-year methodology.

6.5. The TAP raised a concern that there were elements of the installation not covered by the system warranty, such as system edges and junctions and seals on windows and doors, that could cause the system to fail and invalidate the 60-year period. The TAP requested clarification that these issues had been considered by the applicant.

6.6. The TAP raised a concern that insulating below DPC could cause adverse unintended consequences. The TAP sought clarification that the impact of insulating below DPC has been considered by the applicant. The TAP was of the view that the warranty should not be affected by the failure of any below-DPC solution deployed, where this impacts the system under application.

6.7. The TAP found that the technical maintenance manual was less comprehensive than they would have liked, particularly with regards to showing how the system is repaired and how the warranty is maintained. Additionally, the TAP queried the references to annual inspections of door and window seals, questioning who is responsible for conducting these inspections and whether it should instead be included as part of the regular 5-year maintenance check. The TAP was of the view that the cost and administrative burden should not be placed on the homeowner or occupier.

6.8. The TAP sought clarification on who is responsible for covering the costs of cleaning the system, fixing small cracks, and replacing window and door seals.

6.9. The TAP recommended the application be awarded a standard uplift conditional on response to clarifications.

7. Additional product under an existing measure description - DuraShield

7.1. The TAP discussed whether an additional insulation material for DuraShield EWI could be included under an existing measure description. The TAP confirmed that the BBA for the additional insulation material was equivalent to what had already been approved and could be included under the existing measure description.

8. Date of next meeting

8.1. The next meeting of the TAP is scheduled for 24 April 2024. The dates of future TAP meetings are available on our website.