

## Minutes of the ECO Innovation Technical Advisory Panel

From: Roisin Curran

Date: 10 March 2020

Time: 9:00am

Location: London

### 1. Present

David Glew, Leeds Beckett University

Jason Palmer, Cambridge Energy

Neil Cutland, Cutland Consulting Ltd

Andrej Miller, BEIS

Eric Baster, Ofgem

Christopher Mack (Chair), Ofgem

Roisin Curran (Secretariat), Ofgem

### 2. Introductory remarks by the Chair

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

### 3. Innovation Measure Application: Wetherby EWI

3.1. The application was for an EWI system with an extended lifetime. This was based on the use of adhesive and stainless steel mechanical fixings, alongside an increase in technical monitoring carried out by the manufacturer. An inspection regime over a 25 year period was also included.

3.2. The panel agreed the product is 'materially different' as it offers technical monitoring on half of all installations, and an inspection regime covering 25 years. The panel also noted that the proposed fixing method was usually reserved for high rise buildings.

- 3.3. The panel agreed the product was capable of achieving cost savings, and could be considered an improvement on current measures if it could be demonstrated that the lifetime of the product was 60 years, as stated in the application. However, there was insufficient evidence to show the combination of features resulted in a longer lifetime compared to standard EWI systems. The BBA certificate provided did not give sufficient clarity or evidence to demonstrate this.
- 3.4. The panel requested more information on aspects such as the manufacturers technical monitoring, and any studies completed on the effectiveness of the increased technical monitoring for the product. They were particularly interested in the questions asked, and evidence gathered by the technical monitoring agents. It was also unclear if installers are obligated to correct any issues identified during technical monitoring.
- 3.5. The cost to the householder of the potential extended warranty was not included in the application, and the panel questioned why a full 60 year warranty was not offered as there was no guarantee that the householder would avail of the extended warranty after the 25 year point. They also questioned why the cost of maintenance suggested during any of the planned inspections was not incorporated into the service, if this was essential to obtaining the extended warranty, and therefore the full lifetime for the product.
- 3.6. One panel member questioned why mineral wool was included in the application, and what impact this would have on the lifetime of the product compared to the EPS version.
- 3.7. The panel recommended that additional questions were proposed for the Ofgem technical monitoring question set to ensure that features such as the increased manufacturers technical monitoring, and mechanical and adhesive fixing methods were being implemented.
- 3.8. The panel agreed the installation and safety arrangements were reasonable, and the product would have a positive impact on fuel poverty and those vulnerable to the effects of the cold.
- 3.9. The panel recommended the application is approved subject to clarifications on the various aspects of the 60 year lifetime, and evidence that the combination of features would result in a 60 year lifetime for the product.

## 4. Demonstration Action Application: Adey Sense

- 4.1. The application was for a magnetite filter for use in a central heating system, the innovative aspect of which monitors the levels of magnetite in the system and notifies the householder.
- 4.2. The panel agreed the product was materially different to those currently delivered under ECO as part of boiler installations.
- 4.3. The panel did not agree the product is reasonably expected to achieve cost savings. The evidence provided for cost savings is based on magnetite vs no magnetite in the central heating system. The panel were unclear how these cost savings related to the innovative aspect of the product in the application. Evidence of cost savings compared to a standard magnetite filter would have been more appropriate.
- 4.4. The panel questioned how the monitoring of sludge accumulation would result in a cost saving, as action was unlikely to be required between annual boiler services. There was no evidence to suggest how often sludge accumulation between annual servicing would result in a broken boiler, or how this product was an improvement on an annual filter clean.
- 4.5. The panel noted one of the products in the application is still in the development stages, and is therefore not at the appropriate TRL for inclusion in a demonstration action.
- 4.6. The panel did not agree that the monitoring methodology was reasonable, although they appreciated the detail, and the method of intensively monitoring fewer properties. The testing methodology was in relation to the filter only and did not test the materially different aspect of the product. As this is based on consumer behaviour, a survey to determine if households would act on the notifications would provide more useful results than the proposed monitoring plan.
- 4.7. The panel recommended the application is rejected absolutely, as there is no evidence to suggest the product is reasonably expected to achieve cost savings compared to standard magnetite filters. In addition, one version of the product is still in the development stages and not at an appropriate TRL to be included in a demonstration action.

## **5. Demonstration Action Application: Chimella**

- 5.1. The application relates to a removable draught proofing system intended to reduce heat loss through open chimneys.
- 5.2. The panel agreed that the product is materially different to those delivered under ECO, and is reasonably expected to achieve cost savings in properties with open chimneys.
- 5.3. The panel agreed the monitoring proposal was largely reasonable, however questioned the need for aspects such as 24 hour support for a relatively simple product, and suggested this was removed.
- 5.4. The panel noted the changes from the previous application to capture data on household behaviour and the removable aspect of the product using a diary. The panel would have liked more information on the proposed course of action if the diaries were used inconsistently or not at all.
- 5.5. The panel agreed the cost of the proposal was not reasonable, and did not provide value for money. The panel were of the opinion that certain costs, such as the pressure tests, were not relevant to determining costs savings. They recommended these were removed from the project costs along with other unnecessary items, including the additional input from Ecuity in the final report.
- 5.6. The panel were of the view that project management costs were disproportionately high, and the number of Chimellas included were excessive for the sample size. The panel noted the product was charged at full retail price, and were of the opinion that these should be at a reduced cost for the purposes of the demonstration action.
- 5.7. The panel would have appreciated more information on the individual tests to be conducted at each property, along with a further breakdown in costs such as the monitoring equipment and installation. An explanation as to why 3 days per property were required for installation was also requested.
- 5.8. The panel were unsure what was included in the cost for the Smart HTC per property, and asked for clarification if this included a 'black box' or just a software implementation. The panel also questioned why BTS were not completing the analysis

on the data collected, as they would be most familiar with their methods for estimating HTCs.

- 5.9. The panel were of the opinion that in addition to the above points, the overall costs would benefit from further reductions to be considered value for money.
- 5.10. The panel recommended the application is approved subject to clarifications and significant reductions in the project costs.

## **6. Demonstration Action Application: Compofloor**

- 6.1. The application relates to a product, which offers a complete replacement solution for suspended floors. The product includes in-built insulation.
- 6.2. The panel agreed the product is materially different to measures currently delivered under ECO, and is reasonably expected to achieve cost savings compared to uninsulated suspended floors. The panel noted that the U-value for the system is the same as the current standard set by building regulations, however acknowledged there may be increased energy savings from airtightness and the exclusion of draughts.
- 6.3. The panel agreed the product is at TRL 9, and currently deployed on the market.
- 6.4. The panel did not agree that the planned monitoring methodology was reasonable, as it was not aimed at determining cost savings. They suggested that before and after fuel consumption would be more appropriate to monitor than the heat flux of the product.
- 6.5. The panel were of the opinion that numerous methods for testing heat flux were unnecessary, and that sufficient data to determine the heat flux could be gained by performing one of the tests in multiple locations within a single property - before and after the product was installed.
- 6.6. The panel did not review the cost of the monitoring proposal, as it was not appropriate for determining the cost savings of the measure. They did note that replacement floor coverings were not included in the costs, and any potential variations in results associated with a change in floor covering were not addressed in the proposal. The panel also questioned whether the product would be applied to the full lower ground floor, and if kitchens and ground-floor bathrooms would need to be removed and re-instated.

- 6.7. The panel agreed the credentials of the test house were reasonable.
- 6.8. The panel felt the number of properties may not be sufficient to achieve statistical significance, and a higher sample size may be required. The panel also requested more detailed information on how the results would be extrapolated to various property archetypes.
- 6.9. The panel did not agree that the installation safety arrangements were reasonable, as there was no current BBA certificate for the product.
- 6.10. The panel recommended the application is referred back to applicant as the monitoring proposal is not appropriate to determine cost savings.

## **7. Date of next meeting**

- 7.1. The next meeting of the TAP is on Tuesday 12 May 2020 in London.