

Evaluating the impact of an emerging sector: Efficiency for Access Research and Development Fund

E Feng Tan Loh, Energy Saving Trust, UK (<u>EFeng.TanLoh@est.org.uk</u>) Gillian Davies, Energy Saving Trust, UK (<u>Gillian.Davies@est.org.uk</u>)

EXTENDED ABSTRACT

The emergence of highly efficient Light Emitting Diodes (LEDs) has rapidly scaled up lighting availability globally and improved energy access to tens of millions of households and businesses in off- and weak-grid areas. With similar improvements in the efficiency and cost of other appliances such as TVs, fans and refrigerators, consumers in hard-to-reach markets can move up the energy ladder. The Efficiency for Access (EforA) Research and Development Fund is funded by the UK Aid and IKEA Foundation to drive technological innovations and business model solutions for a range of appliances that are particularly suited to off- and weak-grid contexts in developing countries. In this presentation, we provide an overview of the monitoring and evaluation (M&E) process that we have developed for the Fund and key lessons learned from the experience.

Introduction / background

The UK Aid and IKEA Foundation funded Low Energy Inclusive Appliances (LEIA) programme is a five-year research and innovation programme (2018-2022) jointly delivered by Energy Saving Trust (EST) and CLASP. The programme aims to accelerate the availability, affordability, efficiency and performance of a range of appliances that are particularly suited for off-grid and weak-grid contexts. As part of the programme, the Efficiency for Access (EforA) Research and Development Fund has been established to drive technological innovations and business model solutions in the emerging sector. Launched in November 2018, the fund has held three calls and supported 35 projects across 17 technologies.¹

A monitoring and evaluation (M&E) process has been developed for the fund. The purpose of the M&E process is threefold: (1) for process evaluation, by obtaining feedback from applicants to improve the overall design and management of the Fund; (2) for summative evaluation, by ensuring and measuring the extent to which funded projects contribute to the overarching objectives of the fund and LEIA's outcome and impact targets; and (3) for impact evaluation, to generate impact data to support the case for increased investment in the sector, in particular by using the data to help develop standardised impact metrics.

Monitoring and evaluation (M&E)

The M&E process that has been put in place for the Fund includes:

- **Online feedback survey** An online feedback survey was set up and sent to all R&D call applicants after each call, in order to obtain feedback on the grant process.
- R&D project M&E plan R&D fund awardees are required to develop and implement an M&E plan for measuring and reporting their project outcomes and impacts. The M&E plans are reviewed and signed off by the M&E team.

¹ Efficiency for Access Research and Development Fund

- Mid-project M&E interview The M&E team conduct semi-structured interviews with R&D awardees when they are mid-way through their projects to assess project progress, in particular towards achieving the outcomes and impacts outlined in their M&E plan, as well as to understand the strategic impact of the grant for their company and technology.
- **Final reporting** Final reporting includes a project close-out presentation and reporting against all outcome and impact indicators in the awardee's M&E plan.

Lessons learned

Online feedback survey

Feedback from the three online surveys conducted has shown that in general, the programme and application process were well-received. Feedback from the first call applicants helped inform the design of subsequent calls and led to changes being made, such as facilitating the attachment of charts and data to support their application, unlinking the required proportion of matched funding to the project development stage and reducing the matched funding requirement for micro-organisations.

R&D project M&E plan

Holding a M&E webinar with R&D awardees at the beginning of their projects was valuable for capacity building and improving the quality of submitted M&E plans. The challenge in formulating the M&E plan varies across R&D projects, depending on the awardee's experience and the project development stage. Conducting a review process for each M&E plan was particularly useful for awardees with limited prior M&E experience.

Mid-project M&E interview

Through semi-structured interviews with R&D awardees, we found that R&D grants are particularly important for small-scale companies who cannot take on the risk of innovative product development and cannot secure commercial/philanthropic funding due to the lack of track record. In some cases, the grant has helped the awardee form new partnerships and leverage further funding from other donors or investors.

In terms of reporting against their project outcome and impact indicators, earlier stage projects tend to have a higher risk of not achieving the desired outcomes and rely on secondary data to estimate potential impacts. Challenges in collecting impact data were also reported in instances where the awardee relies on local partners to conduct field testing and collect data from end-users.

Final reporting

To-date, two projects have reached completion and successfully provided their outcome and impact reporting. The first of these is the UK company Sure Chill who have developed an innovative refrigeration technology – a smart box controller that enables their fridge to work with different solar home systems, and monitors and manages the fridge for optimal performance. This new technology development delivers a tangible end-product cost reduction, significantly benefitting off- and weak-grid customers.

The impact data from all R&D projects is contributing to the development of sector-wide impact metrics for high performing appliances. These will help inform sector-wide estimation and understanding of impact, which is vital for attracting further interest and investment into the nascent market. To date, EforA and GOGLA have jointly published new impact metrics for fans and TVs.² Further metrics for SWPs and refrigeration are under development.

² EforA and GOGLA (2020) <u>Standardised Impact Metrics for High-Performing Appliances: Fans and TVs</u>.