

HOUSING RETROFIT MONITORING & EVALUATION – CHEAT SHEET

Retrofit projects are large investments - it's important to monitor that they have delivered results, for landlords, funders and residents. This cheat sheet is a short guide to the options for monitoring and evaluation in housing, with tips on how to design a successful M&E programme.

Why include monitoring and evaluation?

Successful monitoring can drive actions and improvements throughout the project and beyond:

FUNDER ASSURANCE Demonstrate delivery	HIGHLIGHT OPPORTUNITY Prioritise interventions	SPOT PROBLEMS Decide how to fix them	SPREAD SUCCESS Take what works to other projects
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What it involves – tasks and management

Some tasks to think about in any M&E project:

Setting goals. Why are you investing in retrofit? Lower bills, improved comfort, reductions in repairs, decarbonisation? How will you track these are delivered? Who needs to see this tracking and what will they do with it?

Recruiting residents. Who do you want to monitor, how are you going to recruit, communicate and manage data privacy with them?

Pre-project baseline how to measure performance before any works. This will also help you understand if you need to change your monitoring tactics.

Post project post occupancy evaluation. How quickly do you want results will depend on who is taking action from them.

Timelines. Expect a standard baseline to take 1 – 3 months. Standard short POE - 3 months. Deeper dive - 12 months plus.

Techniques and tools

Options available for M&E:

Resident survey – questionnaire, focus groups, evaluation forms

Energy bills or consumption data – from bills, manual meter reads, smart meter data. Electricity, water and gas

Internal environment measurement – live monitoring, data loggers or onboard data from devices such as thermostats. Can provide simple data collection or more specialist assessments such as heat loss.

Specialist fabric testing – thermography, air tightness tests, moisture meters etc

Tips for success

Maintain focus. Avoid 'kitchen sink' surveys and monitoring. If your project is focussed on EWI improvements, you probably won't need VOC monitoring, no matter how interesting the data is.

Consider when and where you're evaluating. The clearest results from M&E projects are typically in the heating season - be prepared for peak activity between October and March. You can also expect to see a range of results from homes of different types, locations and size, so to deliver robust results you should plan to monitor in a range of homes.

Bring residents onboard early. Recruitment can be challenging and it may help to include some small incentives for monitoring in the budget. Including messages about monitoring programmes early and consistently in any resident communication is very useful.

Build an action plan for the data. Start a conversation with the audience for the results early in the project to understand when and how the information should come to them. For example, if your contractor wants the data for their snagging program when will that be most helpful. This might include ways to share early results from monitoring with shared access to data.

Integrate with other site visits. To help efficient delivery and reduce number of visits to residents consider ways to co-ordinate with other activities in the retrofit plans, for example EPC assessments.

More reading – processes and 'how-tos' on monitoring for different purposes:

These guidelines show the range of approaches that can be used in retrofits with different goals.

[BS 40101](#) British standard for building performance evaluation of occupied buildings. A helpful starting point as it offers suggestions for different levels of M&E, depending on goals

[PAS2035](#) – a process map for compliance with PAS2035, including requirements for monitoring

[RIBA POE primer](#) – process for post occupancy evaluation in large commercial or residential developments

[Monitoring for fuel poverty and health impacts](#). A possible model from the Centre for Sustainable Energy for understanding the impact of retrofit on health

Now, the sales pitch...

Purrmatrix work with retrofit professionals across the UK to provide actionable environmental measurement to measure housing performance and improve the outcomes from your retrofit project.

If you have questions on how monitoring could help your project or would like support in your project design, Purrmatrix would be delighted to help. Call us on 01223 967301 or email hermione.crease@purrmatrix.com

