

An Integrated Approach to Asset Management

Drawing on our expertise in asset data and data analysis models, the National Energy Foundation provides the tools and processes that enable you to gain a holistic understanding of the quality and completeness of the data you hold, the overall performance of your assets and how they can be optimised.

With uncertainty surrounding energy policy, the limited availability of external funding and the increasing pressures on social landlords to make best use of assets and deliver greater value, the challenge often starts with knowledge gaps in asset profiles.

We offer support to help social landlords review and significantly improve the quality and completeness of their housing stock data, and help them to not only understand their stock energy performance, but also how robust data can unlock wider asset and neighbourhood performance.

Our three-stage process is designed to support Registered Providers in gaining a complete understanding of the performance of their assets, their risk exposure and, as a result, make better informed investment decisions.



This process ensures a clearly defined method for developing knowledge surrounding your asset base. Each of the three steps have value in themselves, with deliverable outcomes. If applied as a combined strategy, however, they provide a holistic view across your total housing portfolio, ultimately enabling more effective and efficient investment decision-making.



“With the combination of regulatory requirements, operational challenges and the financial climate, the imperative for all social landlords to take a more ‘intelligent’ approach to asset management has never been greater”

Chartered Institute of Housing

→ Step 1: Data Health Check and Recommendations

The Data Health Check helps you to understand your current data position, including the overall completeness and quality of the housing stock and the resident and neighbourhood information you hold. We are able to take a global view of all your data sets and use this to identify inconsistencies, gaps and, most importantly, opportunities for how to effectively improve the structure and accessibility of the data so that it can be more easily accessed by whomever, whenever.

Having good quality, up-to-date data is critical in ensuring that the most accurate possible performance baseline can be determined – not only the fiscal and physical performance of assets, but also the wider circumstances of residents and their neighbourhoods. Using this high-quality data as a whole can inform decision-making more intelligently, as well as helping to signpost where further investment in data collection would be beneficial.

Data is often held across a number of different databases and our experience is that there is usually significant potential to critically review what is currently held and identify overlaps and opportunities to augment it. We can also identify potential sources of externally available data that could be imported into your existing systems, thereby improving your future asset investment decision-making even further.

With respect to energy, it is possible to undertake a basic energy assessment for all dwellings in your stock, assuming that a minimum amount of data is available (15-20 data items depending on the property type). The data can then be supplemented over time to refine and improve its accuracy. During a Data Health Check we will establish the proportion of your stock for which it's possible to accurately model energy performance, while identifying the data required to provide at least an indicative SAP rating on your remaining stock.

Data Health Check outline schedule of outputs:

- ✓ Full review, consolidation and reconciliation of existing data
- ✓ Data profiling, to establish a clear understanding of the characteristics of your portfolio, its geographic spread and general performance
- ✓ A series of illustrative tables and charts summarising the existing data held, including information held concerning built characteristics, stock condition, energy performance, planned repair and maintenance, resident profiling and neighbourhoods.
- ✓ A prioritised assessment of the quality of the current data held, identifying your data gaps, inconsistencies and data conflicts
- ✓ Schedule of data sources that can be used to augment and improve the dataset and improve the accuracy future energy assessments and investment appraisals
- ✓ An action plan to improve your data position, reduce data conflicts, fill data gaps and provide a secure basis for performance modelling and planning

→ Step 2: Performance Assessment

Enhancing your data position improves your understanding of asset and neighbourhood performance, and significantly contributes to critical decision-making. Previous studies of housing stock energy have fallen short, solely looking at the housing stock in an isolated way. This traditional approach fails to acknowledge that certain assets require an alternative optimised pathway; for example, an asset that is already performing sufficiently well or no longer aligns with wider organisational objectives will warrant a very different level of analysis and investment.

Stage two of our service (Performance Assessment) builds on the initial Data Health Check. In agreement with you, data sources are combined so that they create a real up-to-date and coherent reflection of the overall performance of your assets. Using our close working relationship with your asset management system provider, our experienced data-handling experts work with you to mitigate absent data and enhance your data position. The outcome is an enhanced housing stock database that you can use immediately, to improve your strategic planning and day-to-day operations.

The key benefit for your energy efficiency investment planning is the creation of a dataset that can be used as the basis for a reliable baseline energy performance calculation. By working closely with you, we can avoid the risk of undertaking energy assessment and reporting as an isolated activity; as all the updated data is directly incorporated into your asset management database. We also work with you to develop methodologies that fully integrate with your asset management system, and our objective is to empower you to be able to self-assess your asset register at any given point in time.

Performance Assessment outline schedule of outputs:

- ✓ Act on findings from the Data Health Check by identifying and collating additional data and information from internal and external sources
- ✓ Mitigate absent data and address uncertainties, drawing upon additional external information about your assets where possible
- ✓ Replace the existing asset management database file with an updated version, where particular focus has been placed on ensuring that sensitive fields (those that are likely to have a bearing on high level decision making) are as complete and accurate as possible
- ✓ Perform a baseline housing stock energy performance assessment on the updated data using energy modelling software. As more data is added or updated in the database, an improved assessment of the stock can be easily run

→ Step 3: Options Appraisal

Having established the baseline energy performance using an enhanced dataset, the aim of the Options Appraisal phase is to determine the optimum medium to long-term investment strategy. Whilst energy performance certificates identify a series of recommended measures for each property, they fail to consider the full spectrum of potential improvements. Also, they do not accurately identify costs and are not conducive to planning large-scale delivery programmes.

Instead, using archetypes as a basis, we can determine the optimal improvement package for key property types. This is based on a balance of factors including (but not limited to) resident running costs, cost effectiveness, energy use, CO₂ emissions, EPC rating and capital budgets. Most crucially, our work at this stage matches your wider organisational objectives, taking into account the financial performance of the asset (NPV, tenant turnover, value, location etc.) and the social well-being of the occupants. Further consideration can also include planned investment programmes and context-specific risks.

The outputs from this phase include a report that details the overall improvement potential of your existing stock, the total investment required, the potential for supplementary funding, and a detailed pathway illustrating the priority actions and the most cost-effective way of realising the portfolios full potential. We produce detailed, individual property-level refurbishment strategies, each providing practical guidance on refurbishment selection and associated risks and mitigation measures. An asset list representing the fully upgraded stock is also created, allowing the asset progress to be tracked on a case-by-case basis.

Options Appraisal outline schedule of outputs:

- ✓ Advanced improvement evaluation of the housing stock, informed by stock archotyping and detailed energy modelling of those properties where a strong business case for energy efficiency investment has been determined
- ✓ Energy efficiency investment report, illustrating total improvement potential, priority actions, investment requirements and funding opportunities
- ✓ 'Future housing stock dataset' against which investment programmes can be tracked against e.g. % works complete
- ✓ Investment recommendations, made in light of the holistic performance of the full portfolio, acknowledging commercial realities such as NPV, asset life, value and location, with performance metrics aligned against your organisational objectives

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