

Researching and developing technical solutions for Energiesprong retrofits in the UK

Working alongside the Energiesprong UK Market Development Team, the National Energy Foundation undertook a range of research activities and provided technical advice in relation to numerous challenges and opportunities that are specific to the UK context.

This page serves as an index, linking to the guidance developed to date. For further information, or to request support for a specific Energiesprong project, please contact the Energiesprong UK market development team directly via [the website](#).

These guidance documents were developed during the initial Energiesprong pilots in the UK. The intention is for solution providers and their social housing clients to adapt these for their own project. Care was taken to ensure accuracy and we trust the guidance is helpful.

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CONTENTS

1. [Energiesprong UK Performance Specification](#)

This document provides an overview of the mandatory, desirable and best practice criteria required in order to deliver an Energiesprong standard retrofit in the UK.

2. [Lay-person's Guide to the Performance Specification](#)

This document provides a non-technical overview of the Energiesprong performance criteria; useful material for the boardroom or for issuing to householders.

3. [Energiesprong and Adjoining Properties Briefing Paper](#)

This paper describes the heat losses through party walls, and implications for those designing and delivering Energiesprong retrofits.

4. [Briefing Paper on TM59 \(Overheating risks in buildings\)](#)

Adding insulation and significantly improving fabric airtightness can present a significant overheating risk if not considered at the early design and solution specification stages. This paper provides a simple summary of the CIBSE TM59 guidance and the design criteria required to meet the UK Energiesprong standard.

5. [Domestic Hot Water Sizing Tool Spreadsheet](#)

With space heating drastically reduced, the provision of hot water becomes the primary challenge with regards to the servicing strategy. Here NEF has developed a technical calculator for assessing DHW

loads, system efficiencies, distribution and storage in order to help designers to meet the Energiesprong Performance Specification requirements.

6. [Domestic Hot Water System Scenarios inc. Legionella risk assessment](#)

Using the NEF DHW Sizing Tool, we have produced a series of worked examples in order to illustrate to difference in performance of a range of different potential DHW solutions. Here we also evaluate design guidance in relation to legionella risk and provide recommendations for mitigating the risks as cost effectively as possible.

7. [Energiesprong Monitoring Protocol](#)

This paper describes the minimum specification required in order to be able to demonstrate compliance with the Energiesprong UK standard. The arising data also enables stakeholders to compare and evaluate the relative performance of Energiesprong retrofits.

8. [Briefing Paper on Energiesprong in-situ performance testing and verification](#)

This document considers a range of technologies that are available for the in-situ testing and evaluation of individual building elements, whole fabric performance, electricity metering, internal environment condition monitoring and also external environment monitoring. Such equipment may be used to good effect by clients and contractors both pre and post retrofit.

9. [Simple Occupant Satisfaction Questionnaire](#)

Householder satisfaction is a fundamental part of any Energiesprong retrofit. Here we provide a tried and tested template for a simple occupant satisfaction questionnaire that may be administered by either contractors or housing associations.

10. [Briefing Paper on After Diversity Maximum Demand \(electricity demand for estates and groups of buildings\), and implications for Energiesprong](#)

Distribution network operators use the idea of 'after diversity maximum demand' (ADMD) to assess local demands on the electrical distribution system. This paper considers the wider implications of Energiesprong on the UK energy network.

11. [Briefing Paper on Small Power Loads](#)

When seeking to deliver a net zero Energiesprong retrofit, small unregulated power loads from appliances, cooking and lighting can play a significant role in overall energy consumption. This paper builds on the work of others to conclude a recommended Energiesprong small power allowance.