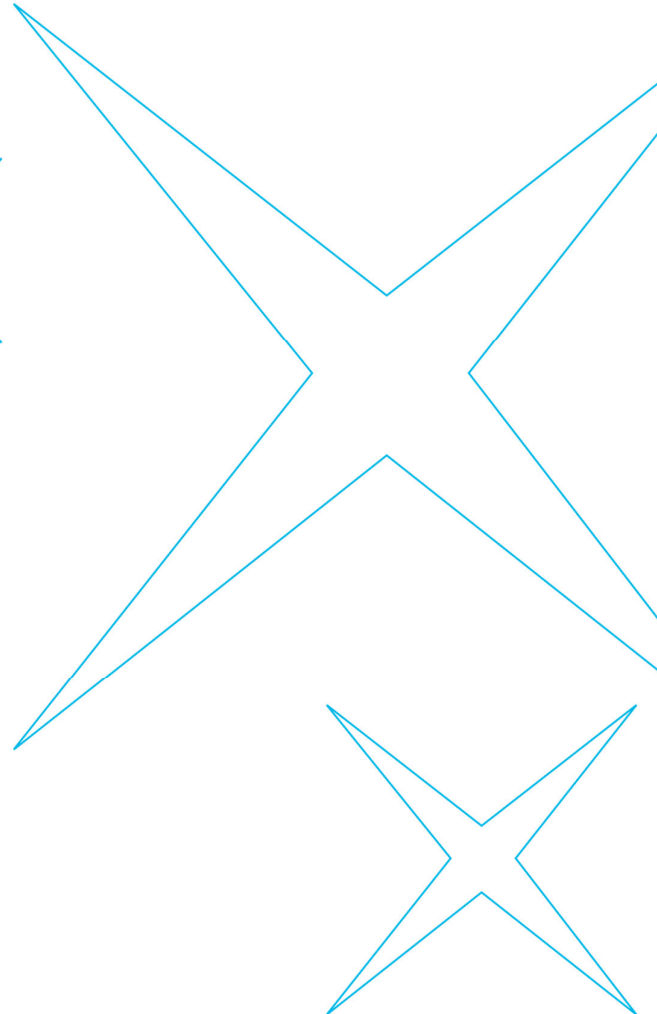
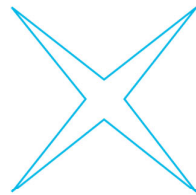


Residential Energy Upgrades: Voluntary Best Practices

For presenting interest rates
and payback periods in home
energy upgrade decisions.

May 2026





Overview

This document details two *voluntary best practices* for any entity hosting an online tool or calculator that is designed to support consumers with home energy upgrade decision-making where financial cost/benefit analysis is included (e.g. Return on Investment (RoI), or “payback period” information). Our research identified that consistent, trustworthy information was a key enabler for increased levels of investment. These best practices are designed to ensure consumers are provided with consistent, complete information that enables more-informed decision making, and that information does not differ across online tool providers where this should be consistent.

Background

These voluntary best practices have been developed using insights and information obtained from discussions with CSF partner banks, as well as entities within the energy industry. We acknowledge that voluntary best practices and consistent information is important across areas outside those covered in this document, however it is our view that the finance sector has less of a role to play in establishing these other best practices given their non-financial, technical nature (e.g. average number of annual sunshine hours in any give location).

Voluntary Best Practice 1: Interest Rates

Current Issue

There is risk of significant variance with regards to interest rate assumptions across tools, giving rise to potential information inconsistency and sub-optimal decision-making.

Detail

Noting that one cost-effective approach to financing home energy upgrades is through low-cost borrowing, online tool providers are likely to include these loans as financing options within their tools. Not all tool providers will be lenders (e.g. energy sector companies). As such, there could be numerous, varied approaches with regards to interest rate assumptions which could drive material RoI / payback differences, especially with regards to follow-on interest rates used post any promotional “low-rate” period.

Voluntary Best Practice

Where online tools include the option to fund a home energy upgrade via bank finance, tool hosts should use the most recent average floating mortgage rate. This can be found within the *B1. Floating first mortgage new customer housing rate dataset on the Retail interest rates on lending and deposits - B3 (1964-current)* file on the following link: <https://www.rbnz.govt.nz/statistics/series/exchange-and-interest-rates/retail-interest-rates-on-lending-and-deposits>

The rationale for using the most recent rate is that it is likely to be most consistent with the live floating mortgage rates that mortgage providers will use, and so will deliver the greatest consistency across tools for end-user decision making purposes. An alternative option was



considered - to use the 20-year average floating mortgage rate - however this would give rise to the risk that there would be inconsistency between mortgage providers and non-mortgage providers. For example, in a particularly low- or high-interest rate environment, live floating mortgage rates could be substantially lower or higher than the 20-year average. As such, home energy upgrade payback profiles could look very different across mortgage providers' online tools and non-mortgage providers' online tools.

The following exemptions to using the most recent average floating mortgage rate apply:

- Where the tool host entity is a mortgage provider and as such has an internal floating mortgage rate that they can apply in a similar approach to online mortgage calculators.
- Where promotional interest loan products are to be modelled, the interest rate used can reflect the promotional rate for the promotional period.

This best practice assumes that borrowing is secured against a property and therefore has access to mortgage lending products.

Voluntary Best Practice 2: Asset Lifespans

Current Issue

Home energy upgrade assets have different lifespans and the approach to modelling this can have a significant impact on RoI / payback projections.

Detail

Looking at an example, if a user models solar and a battery on a 20-year timeframe, an online tool may show benefits accruing for 20 years. Where a battery would need replacing over a 12–15-year lifespan, so there would be a capital cost or a reduction in benefit at the point of end-of-life.

Voluntary Best Practice: There are two options for modelling.

1. Financial benefits attributed to any given asset cease from the end of the asset lifespan. So, if solar (e.g. 25Y lifespan) and battery (e.g. 12Y lifespan) are being modelled together on a 25-year timeframe, any financial upside attributed to the battery ceases from year 13.
2. Where the RoI / payback presentation is longer than one or more of the assets being modelled, it should be assumed that the asset(s) with lifespans shorter than the presentation timeframe are replaced at the same asset cost and on the same financing terms as the initial investment.

It is important that entities hosting tools very clearly outline any assumptions made, including assumptions about asset lifespan.

Note: this voluntary best practice is not looking to determine the usable lifespan of an asset, rather that there is a consistent approach to modelling the financial benefits, taking into consideration asset lifespan.



About CSF

The Centre for Sustainable Finance (CSF), established in 2021, is an independently governed charitable trust, working across the financial system to align financial markets settings and initiatives with long term resilience and prosperity.



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