ENERGY BENCHMARKING AND TARGET SETTING

HOW TO...



Usually, the decision to participate in a benchmarking scheme, or to set property or portfolio energy targets, is taken by an asset manager. The process of collating information that will inform this decision is coordinated by the property manager with input from the facilities manager.

Key considerations for benchmarking and setting energy targets are described below:

BENCHMARKING



1. REVIEW MATERIALITY

A materiality review is an exercise that evaluates the impacts of the business across a range of potentially relevant topics and considers the extent to which those impacts are important to the business and its stakeholders.

Knowing what is expected of the business, both internally and externally, will help to decide what benchmarks are appropriate. The outcomes from a review of materiality can inform future benchmarking decisions. For example:

- If an organisation owns a small portfolio of assets which are already equipped with high performance energy saving and renewable generation measures, climate change may be less material to the business than for others, for example, a larger, more energy-hungry portfolio. Hence, the need for benchmarking data to inform further energy investments may be limited.
- Conversely, stakeholder perceptions may be sufficiently important to merit undertaking a benchmarking exercise to provide evidence of the relatively high performance of the portfolio. This can help to demonstrate that the business is one that strongly supports climate change mitigation.

PM

2. NORMALISE BENCHMARKING DATA

Before proceeding with a benchmarking exercise, it is important to normalise energy benchmarking data, where possible. Unlike an absolute benchmark, a normalised energy benchmark facilitates a like-for-like comparison with other properties or portfolios.

Normalisation can be delivered via a range of metrics, including, for example:

- Kilowatt hours per capita (for example employee, footfall).
- Kilowatt hours per unit of occupied space (for example, m2, sq.ft).
- Kilowatt hours per unit of revenue (For example, £).





3. CONSIDER AN APPROPRIATE BENCHMARK

It is important that a benchmark aligns with a property or portfolio's business strategy. This involves considering whether the benchmark should be inward or outward looking.

For example, if an organisation is new to energy and carbon management, choosing to benchmark performance against a peer that is well established is likely to yield results that illustrate organisational underperformance against the benchmark.

This has the potential to disengage key stakeholders, who may see the process as a futile exercise, and could also harm the brand if the benchmarks are made public. Equally, choosing an internal benchmark, i.e., comparing against other properties within a portfolio, may be perceived as conservative or unambitious.

The following are all useful benchmarking options that could be considered:

Vision	Benchmark	What and Why?			
Internal	Best performing building in a portfolio	Readily accessible information and relatable to key stakeholders in the business. Potential to generate friendly competition in energy and carbon reduction activity.			
External	<u>Energy</u> <u>Performance</u> <u>Certificates (EPCs)</u>	A free to use registry consolidating certificates from thousands of properties, which demonstrate the expected performance from buildings based on plant and fixtures (not actual performance). Useful as all commercial buildings currently require an EPC rating of E or above in			
		the event of a lease or sale event.			
External	<u>Real Estate</u> Environmental <u>Benchmark</u>	A free to use resource with typical and good practice intensity metrics for energy, water and waste, plus a benchmark calculator, based on data from over 1,000 commercial properties across the UK.			
		Useful to understand an organisation's performance as compared to the wider industry.			
External	NABERS	A subscription-based association hosting intensity metrics for energy, water and waste benchmarking based on actual data from commercial properties.			
		Useful to understand an organisation's performance as compared to the wider industry.			
External	Building Services Research and Information Association (BSRIA)	A subscription-based association promoting knowledge in the real estate sector. Publications include benchmarks for specific systems, such as heat networks and heat pumps.			
		Useful to assess particular elements of the energy performance against an industry average.			
External	Peer performance	Large organisations are now mandated to publish their emissions under the <u>Streamlined Energy and Carbon Reporting requirements of the Companies (Directors'</u> <u>Report) and Limited Liability Partnerships (Energy and Carbon Report) Regulations</u> <u>2018</u> . Many also submit their performance to voluntary disclosure schemes.			
		If there are peers that organisations aspire to emulate, or would like to differentiate against, this may be a useful option.			





TARGET SETTING

AM PM

1. CONSIDER EXTERNAL AND INTERNAL DRIVERS AM, PM

As with benchmarking, the outcomes from a materiality review will inform energy target decisions. Alongside this, it is important to consider legislative and scientific requirements that influence a property or portfolio's energy target.

For example, the UK Government and World Green Building Council are advocating net zero carbon by 2050, with interim targets for 2030 and 2035. While there are a number of ways to achieve this without relying entirely on energy reduction, this provides useful context to help frame energy targets.

Organisations can, of course, decide to choose other targets which could demonstrate ambition beyond operational and scientific boundaries, such as net negative.

<u>The Science Based Targets Initiative</u> helps organisations develop targets that are "in line with what the latest climate science deems necessary to meet the goals of the Paris Agreement – limiting global warming to well-below 2°C above pre-industrial levels and pursuing efforts to limit warming to 1.5°C."

It is also important to consider how an energy target is set based on what is possible within strategic, budgetary and infrastructural constraints. This includes understanding what action, and investment, would be required to achieve the target, and considering the extent to which this resource, and the required actions, are is achievable.

Understanding the energy consumption profile of a property or portfolio, and the potential contribution that may be available through different energy saving opportunities, can inform a decarbonisation pathway and incremental targets within it.

Ideally, a target should combine both external and internal drivers.

- Short to medium-term targets based on known opportunities.
- Long-term targets recognising the potential for product and service innovation that may yet involve unknown quantities, or wholesale strategic change that offer energy and carbon reduction opportunities which are not immediately available.

PM

2. CONSIDER BOUNDARIES AND NORMALISATION PM

Energy targets should always be applied within a defined boundary. For example, organisations may decide to take:

- A whole portfolio approach, but should recognise that acquisitions and divestments may impact on performance and hence the ability to meet those targets.
- A like-for-like approach, where performance is normalised to account for acquisitions and divestments, by adding or removing associated consumption to a baseline.
- A steady state buildings approach, so that vacant buildings and those where building controls aren't fully understood or employed, represent a more consistent approach to energy performance and target setting.

Normalisation doesn't only apply to an organisational boundary, but also to the reported energy consumption. For example, extreme weather events can cause consumption to rise and fall disproportionately in comparison to weather remaining consistent year-to -ear.





3. UNDERSTAND THE RELATIONSHIP BETWEEN ENERGY AND CARBON

When setting an energy or carbon target, it is important to recognise that there is not a one-to-one relationship between energy and carbon reduction performance.

Decarbonisation is, of course, impacted by energy reduction. However, the carbon factor of the UK's electricity mix is decreasing, as more renewable generation comes on stream and displaces fossil fuels, such as coal and gas.

As a result, the carbon content of a kWh of electricity has dropped by 49% in the last 10 years. Organisation may therefore decide their carbon targets should be more stringent than their energy targets, to account for grid decarbonisation.

The following are all useful target setting options that could be considered:

Туре	Portfolio	Normalisation	Emissions Basis (Carbon Only)	Approach
Absolute Total energy consumption and/or carbon reduction.	Absolute Whole Portfolio.	Weather Correction Applying regression analysis to account for extreme weather events.	Location Based Utilising the UK average grid mix and associated carbon content to calculate emissions.	Operational Utilising known and quantifiable energy reduction opportunities to ascertain achievable targets.
Intensity Normalised for comparison purposes using a common denominator (for example, kWh/m2).	Like-for-Like Assets operational for two years or more (steady state), and baseline correction for acquisitions and sales.	Electricity Equivalence A reduction in gas consumption of 0.4 to account for its higher coefficient of production than electricity.	Market Based Utilising the carbon content of the agreed tariffs with chosen utilities providers.	Science-Based Required reductions to meet a 1.5oC global warming cap.
	Constrained Defined portfolio based on user preferences.			Aspirational Signalling intent to exceed both operational constraints and 1.5oC scenarios.

