

# Peel L&P Science-Based Carbon Reduction Target Methodology

This document sets out the methodology used by Peel L&P to calculate a science-based target for its office portfolio.

## What is a Science-Based Target?

A science-based target (SBT) is an energy or emissions reduction target which is compatible with the level of decarbonisation needed to ensure that global warming does not exceed 2 °C. The rate of decarbonisation needed is commonly referred to as a “pathway” and will vary from sector to sector and country to country. Much of the work involved in establishing a science-based target centres on determining the most appropriate pathway and the measurements needed to track performance.

## Peel L&P's Science-Based Target

**To reduce our emissions intensity by 68% and our energy use by 25% per square metre in our offices by 1st April 2030 compared to the Best Practice Real Estate Energy Benchmark 2019 or, if a benchmark is not available, by comparison to the building's own 2019-2020 energy use.**

- This target is based on the Committee on Climate Change (CCC) analysis of the decarbonisation needed in UK non-residential property to keep climate change below 1.5 °C, the more ambitious of the international targets set out in the Paris Agreement.
- By 2050, the buildings in Peel L&P's SBT portfolio will achieve Net Zero emissions.
- To support decarbonisation, we will endeavour to electrify our heating or connect our buildings to a zero carbon heat network by 2040.
- We will actively support and encourage policymakers to significantly increase their level of commitment in terms of renewable energy supply.
- We will work with tenants to help them reduce their carbon emissions.
- We commit to reporting annually on the performance of our offices against this target on our website <https://peellandp.co.uk/responsibility>

## Peel L&P's science-based target aims to be:

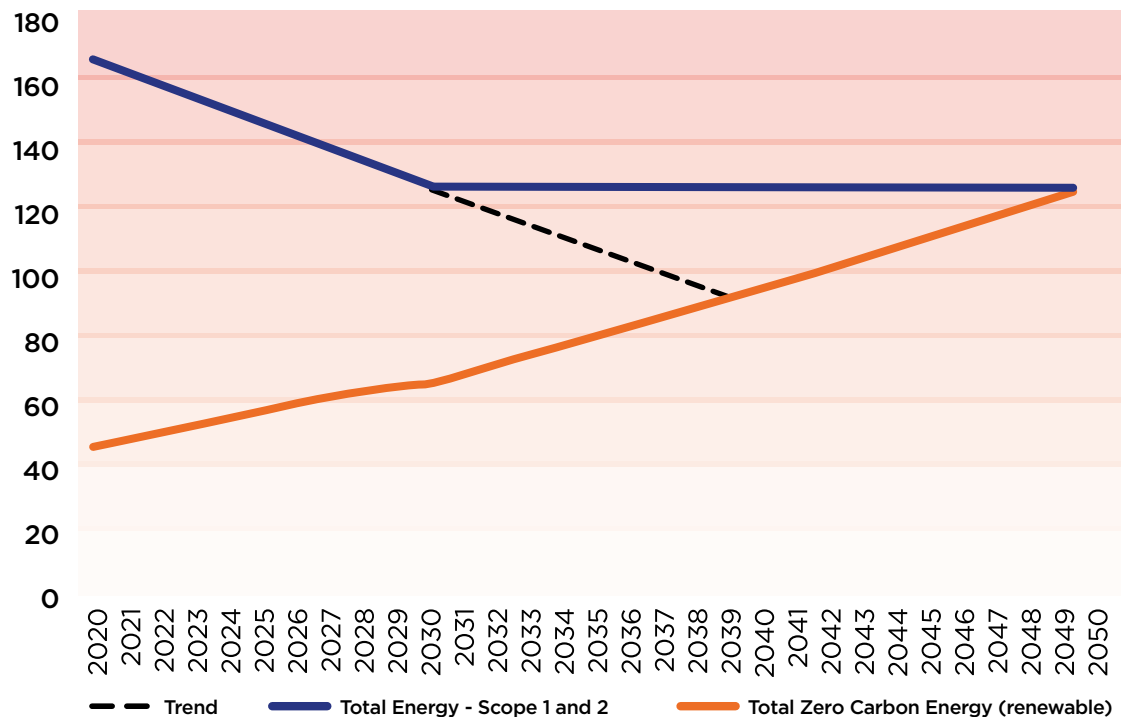
1. Ambitious - recognising the urgent need to address climate change. The methodology is based on the more ambitious of the UNFCC's Paris Agreement<sup>1</sup> global warming targets, "to aim to limit the increase to 1.5 °C", using the most challenging best practice benchmarks available.
2. Specific - based on Peel L&P's main business sector, commercial property, using a UK decarbonisation pathway.
3. Easy to understand - so that all stakeholders, especially people who are not specialists in sustainability, can engage with the target and be confident that it is independent and science-based.
4. Compatible with regional and sectoral initiatives, such as the Net Zero Carbon goals of Greater Manchester and Liverpool City Regions and the Green Building Council's Net Zero Carbon framework definition for buildings.
5. Transparent - so that all stakeholders can see what sources have been used to develop the target. We will make annual progress updates available on our website <https://peellandp.co.uk/responsibility>.

## The trajectory to Net Zero Carbon

On the chart below, the blue line shows the energy demand set out in the SBT. This goes from 168 kWh<sub>e</sub>/m<sup>2</sup> (NLA) in 2020 to 126 kWh<sub>e</sub>/m<sup>2</sup>(NLA) in 2030, a 25% energy use reduction.

The orange line shows the quantity of this energy that is expected to be produced with net zero emissions. This line starts with the currently available renewable energy from the Digest of UK Energy Statistics<sup>2</sup>, projected to meet the 126 kWh<sub>e</sub>/m<sup>2</sup> (NLA) target figure in 2050, which the CCC's Further Ambition scenario says will be fully met by net zero energy.

Energy intensity reduction trajectory - kWh<sub>e</sub>/m<sup>2</sup> (NLA)



<sup>1</sup>[https://ec.europa.eu/clima/policies/international/negotiations/paris\\_en](https://ec.europa.eu/clima/policies/international/negotiations/paris_en)

<sup>2</sup> <https://www.gov.uk/government/statistics/renewable-sources-of-energy-chapter-6-digest-of-united-kingdom-energy-statistics-dukes>

With this pathway, front-loading the efficiency improvements into the next ten years to 2030 means that the proposed SBT is compatible with other Net Zero targets, such as Greater Manchester's goal to achieve Net Zero by 2038 or Liverpool City Region's objective to reach Net Zero by 2040. This is because the linear rate of improvement set out in the 2030 SBT aligns closely with these regional targets, as can be seen in the black trendline in the chart above, based on extrapolating the 2030 SBT to 2039.

Although the blue energy intensity metric set out in this SBT requires no further demand reduction beyond 2030 to meet the 1.5 °C Paris goals, in practice additional opportunities for energy demand reduction are highly likely between 2030 and 2050. This is because further technological innovations, office refurbishments and policy changes will almost certainly lead to additional emissions reductions.

The early action also allows for adjustments in the SBT as the scientific data changes. The SBT will be reviewed every year in light of actual decarbonisation of the energy supply and scientific advances regarding climate change.

## An SBT for commercial offices

Our methodology has focused on developing a SBT for commercial offices which can be adapted to suit other building types within our portfolio in the future. The energy use within our SBT portfolio is approximately 68% of the energy used by the significant facilities within our ISO 50001 energy management system. Eight out of the fourteen buildings in our SBT portfolio are already third party verified as Net Zero Carbon using the UK Green Building Council's framework definition, with the remaining buildings to follow suit shortly.

## Scope

The initial scope of the SBT is emissions in operation, which are technically referred to as Scope 1 emissions (emissions directly arising from activities on-site, such as burning natural gas in boilers to produce heat) and Scope 2 emissions (emissions arising from imported energy, usually electricity but could also include heat from a district heating scheme).

Indirect Scope 3 emissions, such as those produced by tenants' operations outside the control of Peel L&P, arising from travel or embedded in construction materials, have been excluded from the SBT at this time. Quantifying Scope 3 emissions is a considerable task for our business which would introduce a significant delay in adopting a SBT. However, we are fully aware of the importance of Scope 3 emissions and we are actively exploring tools to measure and manage these emissions, using guidance such as the UKGBC's Guide to Scope 3 Reporting in Commercial Real Estate.

## The 14 buildings in our SBT portfolio are:

- **Venus**, TraffordCity, Greater Manchester
- **White**, MediaCityUK, Greater Manchester
- **Blue**, MediaCityUK, Greater Manchester
- **Orange**, MediaCityUK, Greater Manchester
- **dock10**, MediaCityUK, Greater Manchester
- **Tomorrow**, MediaCityUK, Greater Manchester
- **The Garage**, MediaCityUK, Greater Manchester
- **The Vic**, Harbour City, Greater Manchester
- **The Alex**, Harbour City, Greater Manchester
- **Quay West**, Salford Quays, Greater Manchester
- **Digital World Centre**, Salford Quays, Greater Manchester
- **No. 8, Princes Dock**, Liverpool
- **No. 10, Princes Dock**, Liverpool
- **No. 12, Princes Dock**, Liverpool

The buildings listed above are in Peel L&P's Net Zero Carbon portfolio

## Dutch Green Building Council approach

By 2050, the buildings in Peel L&P's SBT portfolio will achieve Net Zero emissions i.e. they should not emit greenhouse gases through their energy or refrigerant use. Net Zero emissions, however, does not mean zero energy use. Buildings will be able to use some energy in 2050, so long as the energy has been produced from a zero carbon source, such as wind, tidal, nuclear or solar power.

This 'convergence on zero carbon energy supply' approach has been formalised by the Dutch Green Building Council as their 'Paris Proof'<sup>3</sup> method and is the base methodology for Peel L&P's SBT.

The approach is illustrated below:



The calculation of the demand reduction needed (3), to reach the point where all energy demand is serviced by renewable energy supplies, has been completed by the Committee on Climate Change (CCC) in their Net Zero Technical Report<sup>4</sup> published in May 2019<sup>4</sup>. The 'Further Ambition' scenario in the technical report sets out the zero emissions pathway. The energy demand change necessary in the Further Ambition scenario is a 21% decrease in electricity and 25% decrease in heating fuels by 2030.

In addition to the energy reduction targets, we need to take into account that the CCC model expects that the non-residential sector switches at least 50% of heating to electricity using heat pumps, which are highly efficient. The remainder would be supplied by low carbon district heating networks using hydrogen as a fuel.

It is important to recognise that the Further Ambition scenario sets out the changes needed on the energy supply side in order that the demand reduction and fuel switches above are aligned with the quantity of renewable energy (primarily electricity and hydrogen) available in 2050.

The final step in our calculation is to turn the 21%/25% reduction needed in Step 3 into an intensity figure expressed as the amount of energy used per metre square of net lettable area of the building (4).

Presenting the SBT in this way has a number of advantages:

- It is easy to understand and measure
- It is scalable, meaning that as we add or remove properties from the portfolio, the target remains unchanged
- We can use benchmark data, where available, to calibrate the target to best practice, ensuring that Peel L&P's targets are aligned with wider sector performance

## Benchmarking

For several of the asset types managed by Peel L&P, such as commercial offices, shopping centres and car parks, the Better Buildings Partnership has produced the Real Estate Environmental Benchmarks (REEB), most recently for 2019.<sup>5</sup>

For buildings for which a REEB benchmark is available, the SBT will be based on improving the Best Practice benchmark (the 25th percentile). By choosing an

<sup>3</sup> <https://www.dgbc.nl/themas/paris-proof>

<sup>4</sup> <https://www.theccc.org.uk/wp-content/uploads/2019/05/Net-Zero-Technical-report-CCC.pdf>

<sup>5</sup> <https://www.betterbuildingspartnership.co.uk/real-estate-environmental-benchmark-2019>

improvement on Best Practice, the target is further demonstrating ambition. Some Peel L&P buildings do not have an equivalent benchmark in the REEB. This could be because the building's function is not listed, as is the case for dock10, a television studio at MediaCityUK. In those cases, the energy use in the reference year 2019-2020 will be the benchmark against which improvement is measured.

**Other considerations**

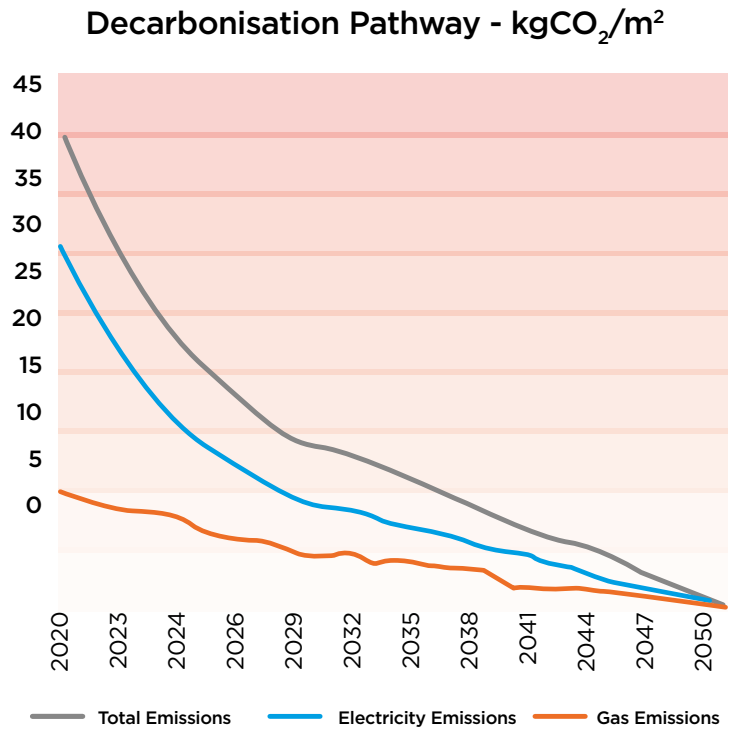
To calculate the Peel L&P SBT, heat and energy consumption has been added together into a single kilowatt-hour electricity equivalent (kWh<sub>e</sub>) figure using the same method as in the REEB benchmarks. This provides us with a single energy intensity figure for each building.

A consequence of this is that we will not track heat and electricity separately in the SBT, and so the demand reduction target across both these will be set to 25% rather than 21% reduction in electricity and a 25% reduction in non-electric heat energy as set out by the CCC. By choosing the upper value, this simplification increases the ambition of the targets and also the simplicity of measurement.

**Is the Peel L&P SBT compatible with the Science Based Targets Institute (SBTI) criteria?<sup>6</sup>**

SBTI has developed a very comprehensive set of guidelines and tools to support science-based targets. Unfortunately, the Sectoral Decarbonisation Approach offered by the SBTi is currently based on a non-specific global decarbonisation pathway to a less ambitious “well below 2 °C” target. We have chosen to base our methodology on the more ambitious of the UNFCCC’s Paris Agreement<sup>7</sup> global warming targets, “to aim to limit the increase to 1.5 °C”.

A requirement of the SBTi is that the absolute emissions reduction must exceed a linear 2.5% per annum improvement. The chart below illustrates the SBT in emissions terms, taking into account the forecasted decarbonisation of heat and electricity. The ‘kink’ in the chart at 2030 reflects the CCC’s expectation that electricity will decarbonise rapidly, with 80% of electricity coming from zero carbon sources by 2030.



Peel L&P’s pathway represents a 9.64% improvement linearly between 2020 and 2030, significantly above the SBTi requirement.

**This methodology was developed with the help of SustainSuccess Ltd.**



<sup>6</sup> [sciencebasedtargets.org/wp-content/uploads/2019/03/SBTi-criteria.pdf](https://sciencebasedtargets.org/wp-content/uploads/2019/03/SBTi-criteria.pdf)  
<sup>7</sup> [ec.europa.eu/clima/policies/international/negotiations/paris\\_en](https://ec.europa.eu/clima/policies/international/negotiations/paris_en)