

How to get to Net Zero in real estate investment

We know a drastic fall in carbon emissions from the built environment is essential to save the planet. Even so, real solutions - let alone action - remain elusive. It's time to work out how it can be done.

Writing a tune is worth little if no one sings it. The Paris Agreement was met with great acclaim when signed in 2015. It set a target of a net carbon-neutral world by 2050, with a 45% cut in emissions by 2030 needed to limit global warming to 1.5C.

The harsh reality is that too little has changed in the intervening years, as the recent 26th Conference of Parties (COP) unfortunately confirmed. The Covid-19 pandemic - with its consequent shuttering of entire economies - put a dent in global carbon emissions that stoked optimism. Although good to see that the pandemic is turning endemic, sadly, the dent in emissions also quickly buffed out.

Practical and coordinated steps towards improvement have been slow in coming. At a recent industry event we still heard the following quote from a significant market participant: "It is a balancing act. You want to stay harmonised with the market, you don't want to get ahead of the grid", when this party was asked about investing in solutions and implementing measures to move to Net Zero. If the whole market continues to think this way, our industry, accounting for nearly 40% of carbon emissions, will not change - yet the environment around us will.

Putting the transition into perspective

Real estate needs to achieve both net zero operational carbon by 2030 and net zero embodied carbon by 2050.

To effectively transition according to the above standards, in time, the real estate industry has to meet some significant hurdles. 40% of buildings and 75% per cent of infrastructure that are predicted to exist in 2050 have yet to be built. These new buildings will need to be net zero carbon across their lifecycle.

This includes embodied carbon - the emissions generated in creating building materials - which must be reduced by at least 40% by 2030, with leading projects achieving at least 50% reductions. By 2030 100% of new buildings must be net-zero carbon in operation. But it means much more. 80% of today's (European) building stock will still be here in 2050. As such, retrofitting every one of those assets to be energy efficient must either be complete or at the very least, well underway by 2030 to be able to meet these targets.

Unity and practicality; how to get to Net Zero

2015's COP21 saw over 190 countries agree on climate action, but COP 26 concluded that the interpretation of the actual requirements supporting this

agreement has been widespread. As result, the varying government guidelines and industry standards put in place are not yet fully aligned, and worse, will not lead to a Net Zero outcome in time to keep the temperature rise below 1.5C. More coordinated and focused action is needed, also including emerging markets, home to 85% of the world's population, with forecasts of steep economic and population growth, and starkly different developmental states.

Perhaps the biggest finding was that in our industry, the focus has been more on data gathering and theoretical energy labels rather than on in-use emission reductions. Of course, reduction cannot be achieved without first measuring, but being awarded full marks or green stars for reporting only, could lull our industry into a false sense of security.

Actual emissions, including also those of the tenants - in use - can only be reduced through action targeting the total building, its operations and waste. This approach relies heavily on cooperation between the end investor, manager and tenant.

What does this involve?

Operational carbon emission can be reduced via energy efficiency measures with metering, installing LED lighting, optimisation of building management systems (BMS), upgrades to heating and ventilation systems and measuring output in close collaboration between tenant, property manager, owner and investor.

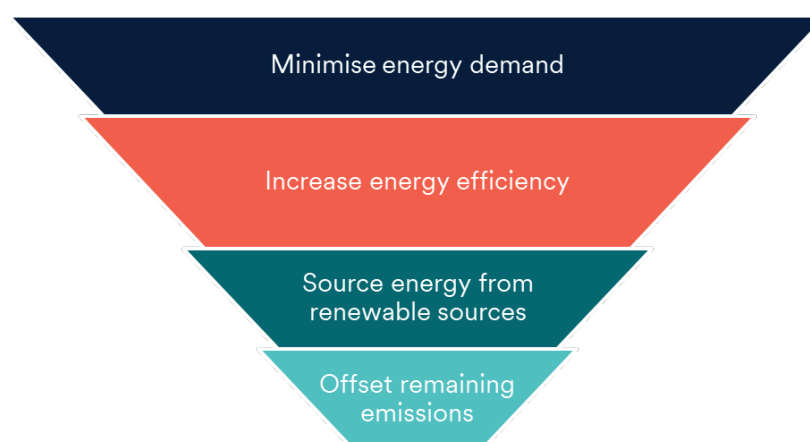
Embodied carbon reduction requires carbon analysis of the whole value chain of a building delivery from design, building materials, construction methods and delivery, through to the commissioned operational building. Such an approach should reward value and carbon engineering for the lifecycle of a building.

To achieve this, mindsets must adjust permanently, to "renovate, not replace" and buildings must be designed for the real world; for "in use", not "in theory".

Carbon needs to become a key factor in appraisals, alongside financial analysis. Profit needs to be considered after environmental impact, and using a clear carbon price as a proxy at least, can address this. Although the industry generally agrees that buying offsets is not the best way to achieve net zero for real estate portfolios, the reasons why this method is generally dismissed are not valid in our view.

It is argued in that it is not economically viable to buy offsets to reduce to zero as would hurt financial returns. However this is missing the point: the costs of carbon emissions are effectively already there.

The energy reduction pathway: a hierarchy of action



Source: Schroders

That is to say, the time-discounted cost of forecast climate change disruption for our industry is enormous. One cannot assume that wider society or even the industry itself will accept the industry to "free ride" on these future costs indefinitely.

These implicit emission costs should be taken into account in the underwriting of assets now. This can ensure the right investment decisions can be taken and assets are readied for long-term future sustainable (financial) performance.

A decent proxy for these implicit costs related to carbon emission embedded in real estate portfolios, can be the price at which voluntary carbon offsets are trading on the market. Our research has concluded that capitalising the (implicit) carbon costs (at offset pricing) is a very good proxy for the capex that is required to be invested to actually reduce the carbon emissions (landlord controlled) by c.70%. We have included an example below.

Real world example

Our sustainability strategy includes a Net Zero Commitment made in 2019 and we are working with an ambitious focus on reductions in CO2 emissions. We have taken one of our mandates, situated in and exposed to German real estate (principally office) with an income target of between 4.5-5% as an example.

In the "baseline" year, total operational carbon emissions were c.7,000 tonnes (t) per year. Green electricity contracts had not been achieved and this figure excludes specific tenant consumption to focus purely on the building output. Initial energy audits have been carried out for the majority of the assets, allowing us to set realistic targets and project costs.

- An initial reduction of 500t - in the short-term - is achievable through asset efficiency measurements

- The procurement of green electricity drops emissions by 3,800t
- From there, we can secure district heating of which c. 40% can be renewable energy sourced
- Remaining emissions could further be addressed - by around 5-10% - by introducing on-site renewable energy, to leave a residual footprint of an estimated 2,000t.

The forecast investment (capex) to effectuate these reductions amount to c.€12m. Interestingly, we have established that this investment to reduce actual emissions in the portfolio - by more than 70% from 7,000t to 2,000t - is similar to the costs of buying carbon credits for 70% of the actual carbon emissions on the voluntary carbon market. Moreover, the energy costs of the building reduce ultimately benefitting the operational costs of the tenants and together with a better carbon footprint, constitutes material value which a tenant is willing to pay for.

The environment will charge us one way or another

The industry needs to move away from, "lets not get ahead of the grid". We have an opportunity to self regulate to the right outcome for all stakeholders, incentivise our asset managers beyond short-term profits and in favour of long-term relevance and performance.

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