Real Estate House View

Real Estate on its way towards climate neutrality

SwissLife Asset Managers

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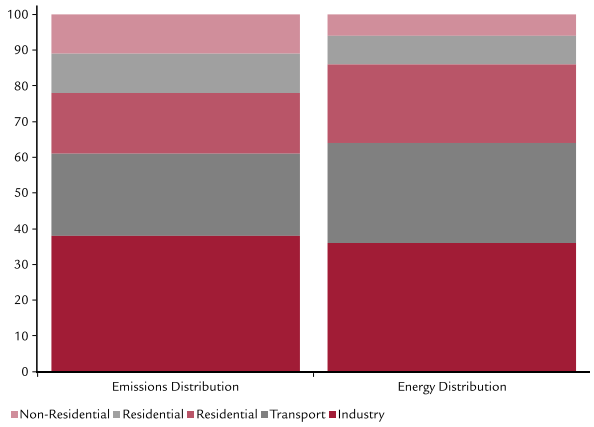
How the real estate industry is addressing E(SG) challenges

Share of energy and emissions: key figures in the building industry



Source: IEA

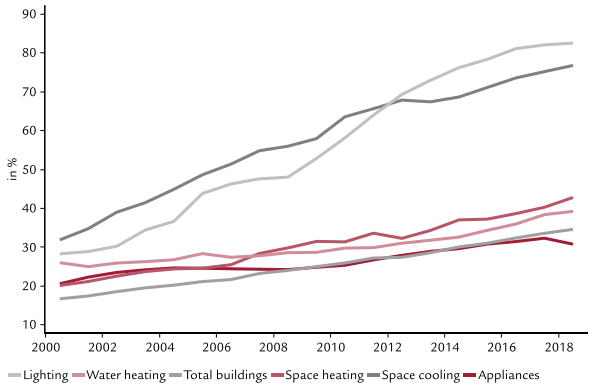
The International Energy Agency (IEA) estimates that building construction and operations account for the largest share of both global final energy use (36%) and energy-related CO2 emissions (39%). Buildings are also the world's biggest consumers of steel, copper and concrete, which are both energy and carbon-intensive resources to produce. The UN estimates that buildings account for over half of global electricity usage, about 28% of global carbon emissions and over 10% of potable water consumption. Heating, cooling and lighting make up roughly 60% of energy usage in existing buildings, a key metric to assess the carbon footprint of a building - with appliances and other miscellaneous utilisations accounting for the remainder. To keep global warming below 2 degrees Celsius as mandated by the Paris Agreement, the real estate sector as a whole, from existing stocks to new builds, will need to reduce total CO2 emissions to 36% by 2030, following estimates by the World Bank. Such challenges explain the holistic approach adopted by all stakeholders to substantially impact the entire value chain of the real estate sector over the past few years.

However, the pandemic has definitely accelerated the trend towards the climate transition across all scopes (1, 2 and 3 – more precisely with home office). Acceleration is seen across all areas of real estate but also on financial markets.

Focus on energy performance challenges[1]

Although the challenges to fulfilling the Paris Agreement remain high, governments, designers, builders and major real estate stakeholders have taken large steps to decarbonise global building stock and improve its energy performance across all domains. Given past policy requirements, the coverage of improving energy performance has significantly increased for both lighting and space cooling, the two usual suspects. Besides, from 2010 to 2018, renewable energy became the fastest-growing energy source for buildings: + 21% on average. Despite these positive steps, more needs to be done in specific areas such as building envelopes or heating, the other usual suspects.

Policy coverage of total final energy consumptions in buildings

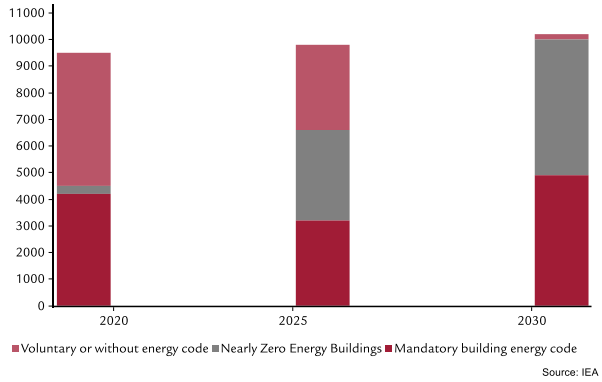


Source: IEA

[1] Net Zero Carbon: a Road Map for the Global Energy Sector was released by the International Energy Agency on 17 May 2021. Such a report is key for all stakeholders.

Zero-energy buildings to rise

Building Construction by Type of Building code (under the Sustainable Developement Scenario)

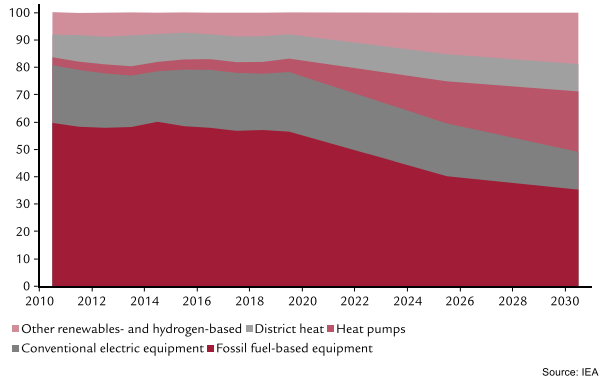


Source: IEA

Improvements in the energy efficiency of building envelopes – the material components of a building's structure such as insulation, windows and air sealing – are the largest components of energy-related investments in buildings, representing almost 50% of expenditure. To reach the IAE Sustainable Development Scenario targets by 2030, mandatory building energy codes are becoming the norm, at least in countries committed to the Paris Agreement's objectives. Mature economies have been ahead of the game with their track record in developing new techniques for greening buildings, aside from brand new green buildings. A wide range of certifications is available, more specifically on commercial real estate: as a reminder, a certified office building has on average 13% lower site energy use intensity, 11% lower electricity usage, and 16% lower water usage, when compared to non-LEED certified office buildings. More recently, the emergence of Proptech with E(SG) innovative solutions also enable a lower carbon footprint for the existing stock.

Clean tech on the rise

Heating Technologies Sales until 2030 (under the Sustainable Development Scenario)

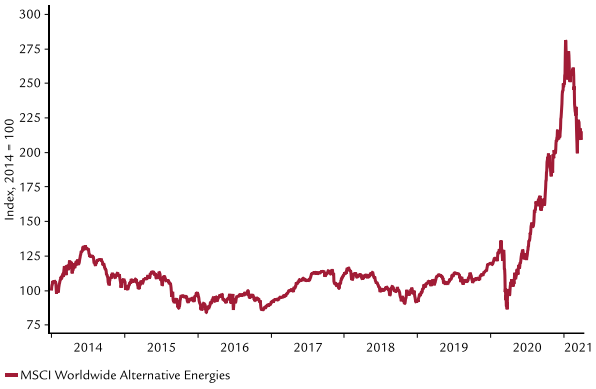


Source: IEA

The heating equipment used by the building industry, an Achille's heel of the sector, has remained heavily dependent on fossil fuel-based equipment or less-efficient conventional electric heating technologies, which accounted for 80% of new sales before the pandemic. To be in line with the SDS 2030, the share of clean heating technologies – as suggested by the chart – needs to more than double to reach 50% of sales by 2030. On energy intensity reductions, renovations of existing building stock would need to double from 15% to at least 30-50% to achieve the SDS 2030. Such targets seem more feasible today compared to pre-pandemic.

Financial market signals

MSCI Worlwide Alternative Energies



Source: Bloomberg

Looking at the surge of the MSCI index on renewable energies, the message is crystal clear: investors are expecting more than ever that the world has changed. The great reset towards climate transition is under way, suggesting an acceleration of technologies used by the building industry. On top of that, the carbon price has also surged compared to its previous level, mirroring the increasing policy norms designed by public bodies worldwide. Interestingly, the DRAM price has also surged, mirroring the acceleration of digitalisation in the economy, spanning also the entire value chain across real estate. The conclusion is straightforward for the real estate industry: it should quickly become smarter and greener and be a pillar to promote sustainable growth and value.

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