



SPOTLIGHT

The Real Estate Sustainability Landscape

A LOOK AT THE MIDDLE EAST VERSUS THE WORLD FOR
COMMERCIAL, RESIDENTIAL, RETAIL AND INDUSTRIAL SPACES

The Savills logo, consisting of a solid yellow square above the word "savills" in a lowercase, red, sans-serif font.

savills

Introduction

In light of the UAE marking 2023 as the Year of Sustainability, building a resilient economy that offers a high quality of life, is a priority for the UAE Government. The country's leadership has acknowledged the importance of a sustainable environment for longer-term economic success.

It is committed to global efforts aimed at mitigating any negative impacts on climate resulting from its economic and social activities. With an aim to preserve and nurture the natural landscape of the country and create a green economy, the UAE Government has issued various frameworks to guide and regulate energy generation and consumption across the country. Among others, the UAE General Environmental Policy issued in 2021, aims to increase the clean energy contribution to the overall energy mix to 50% by 2050 and reduce energy consumption at individual and institutional levels by 40% by 2050. As part of hosting the **Conference of the Parties (COP)28**, various private and public sector entities in the country have committed to the Global Stocktake (GST) with an aim to monitor and make progress towards achieving the objectives set during the 2015 COP21 held in Paris, also referred to as the 2015 Paris Agreement.

The year of
Sustainability,
culminating in COP28

A green economy for long-term sustainable growth.

Given its location, the country has its unique environmental challenges and opportunities. These have to be taken into account and addressed accordingly, without compromising economic growth. As the country is located in a water-scarce, arid environment, the challenges are more pronounced compared to other parts of the world. Approximately 85% of the population and over 90% of the infrastructure of the UAE is located within a few kilometres of the coastal areas. While it is important to consider all of the potential climate change phenomena affecting coastal zones, sea level rise appears to be particularly important due to the continued and escalating concentration of population, infrastructure, and industry in the coastal zones.

The rising temperatures and global sea levels expose the UAE's water, coastal, marine, and dryland ecosystems making it difficult to sustain life and economic activity. The rising temperatures also pose a risk to buildings and infrastructures, agriculture, and overall food security thereby negatively impacting public health.



The Government has been utilising modern technology to address these challenges and, in the process, creating new economic sectors in the form of green products and services. One such initiative is the Mohammed bin Rashid Al Maktoum Solar Park in Dubai.

World's Largest

SINGLE-SITE SOLAR PARK BASED ON INDEPENDENT POWER PRODUCER (IPP) MODEL

5000 MW

PLANNED PRODUCTION CAPACITY BY 2030

Over 6.5 Mn tons

OF CARBON EMISSIONS WILL BE SAVED ANNUALLY ONCE COMPLETED

AED 50 Bn

IN TOTAL INVESTMENTS

These efforts are likely to lead to a gradual transition to cleaner sources of energy while creating new sectors for economic growth.



SOURCE UAE GENERAL ENVIRONMENTAL POLICY, 2021 | U.A.E

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Our goal is clear:
to build an economy that
protects the environment and
an environment that supports
the growth of the economy.

HIS HIGHNESS SHEIKH MOHAMMED
BIN RASHID AL MAKTOUM

VICE PRESIDENT AND PRIME MINISTER
OF THE UNITED ARAB EMIRATES
AND RULER OF DUBAI



The real estate sector is a key component of the UAE economy. Collectively, the construction and real estate sector employs close to 19% of Dubai's working population and contributes 14% to the GDP.

The residential real estate market in Abu Dhabi and Dubai alone was worth USD 65 Bn in 2022 growing by 75% y-o-y and is already worth close to USD 78 Bn in 2023 YTD. The sector has seen impressive growth over the last few years. The growth momentum is likely to continue as the UAE leads the Middle East region in terms of the total value of projects currently under construction till 2030. There are more than USD 800 bn worth of construction projects that are in the pipeline until 2030.

Total value of upcoming construction projects



SOURCE MEED PROJECTS, SAVILLS RESEARCH, DATA TILL 2030

As a vital sector and growth driver of the economy, it is important to ensure a sustainable path for the sector to evolve in the future. This includes a combination of efforts from regulatory authorities, real estate developers, and also end users. A lot has been done in the past, however, policies and processes need to be re-evaluated on a regular basis due to the dynamic nature of the problem and the solutions that are available. The below section looks at government policies aimed at making the sector more sustainable and also a sectorial overview of the current status quo.

Green Certifications in the UAE

Estidama is the Arabic word for sustainability and an initiative developed by the Abu Dhabi Urban Planning Council (UPC). Estidama Pearl Building Rating System (PBRs) is currently mandatory for proposed construction projects in Abu Dhabi. The PRS has been integrated into the building permit process. Construction of an applicable development is only possible if a project complies with the PRS requirements. The Executive Council Order of May 2010 states all new applicable buildings must meet the 1 Pearl requirements while all government-funded buildings must achieve a minimum 2 Pearls.



While in Dubai, the city was awarded the 'platinum rating' in the LEED (Leadership in Energy and Environmental Design) for Cities certification by the US Green Building Council in 2019 – becoming the first city in the MENA region to win the award.

In line with sustainable development goals, H.H. Sheikh Mohammed Bin Rashed Al Maktoum approved Al Sa'fat as a green building rating system in 2016. Al Sa'fat includes a set of mandatory requirements for all new buildings to obtain the Silver Sa'fa. Owners aiming to achieve higher performance may apply a set of additional requirements to achieve the Golden or Platinum Sa'fa. Regulations and specifications are based on the principle of improving the performance of buildings in terms of reducing consumption of energy, water, materials and improving public health, safety and general welfare.



Current policy and legislative framework around the real estate sector

International Environmental Certification

Internationally, LEED, operated by the US Green Building Council, is the most widely employed green building certification scheme. Available for almost all building types, including schools, retail units, hospitality buildings, data centres, warehouses, and distribution centres, and healthcare facilities, LEED provides an assessment framework for healthy, energy-efficient, and financially saving green buildings. LEED certification is a globally recognised symbol of sustainability achievement and leadership that is not a static certification as beyond assessment, the ongoing reporting of sustainability data is required.

The scheme offers five certifications

COMMERCIAL

This can be applied to a single or group (campus) of buildings for one certificate that has been completed.

NEIGHBOURHOOD DEVELOPMENT

This larger-scale assessment can be applied to developments as early as the planning phase and up to 75% completion.

RESIDENTIAL

Used to certify residential buildings including all single-family homes, multi-unit residential developments, and shell projects.

VOLUME

Designed for the owners, managers, or leasing agents, this scheme is designed to certify an organisation's ESG ambitions to be applied across a portfolio.

CITIES AND COMMUNITIES

Developed to support local leaders in creating responsible, sustainable, and specific plans for natural systems, energy, water, waste, transportation, and many other factors that contribute to quality of life.

Localised Certification Schemes

Beyond LEED, other certification schemes have achieved wide recognition and application. NABERS, the National Australian Built Environment Rating System, has been introduced to the UK for its focus on energy performance in commercial buildings with the potential to improve existing operational data gaps. Managed by the UK Building Research Establishment, the BREEAM certification scheme is designed to help building managers improve the environmental performance of operational buildings and can be applied to a single space or entire building.

Covering a range of major environmental issues that impact buildings throughout their operational life, the standard comprises three parts:

PART 1 | ASSET PERFORMANCE

Assesses the environmental performance of a building's construction, fixtures, fittings, and installed services.

PART 2 | BUILDING MANAGEMENT

Evaluates the operational and effective management of the property.

PART 3 | OCCUPIER MANAGEMENT

Considers the management of tenants and other users and services within a commercial building.

Internationally the development of schemes by country reflects specific, local demands from building managers, leasing agents, and sustainability organisations. In Canada, for example BOMA (Building Owners and Managers Association) established the BOMA BEST scheme that is considered to offer a less complex and more affordable option to LEED. The scheme has issued almost 3,000 certifications for existing buildings across Canada and diplomatic buildings overseas since its inception in 2005.

While in Thailand, the Thai Green Building Institute launched TREES (Thai's Rating of Energy and Environmental Sustainability) in 2017 and considers energy conservation, indoor environmental quality, location and landscape, materials and resources, building management, water conservation, innovation, and environmental protection in its assessment. The strategy draws on LEED for around 30% of its criteria with the remainder tailored to better reflect the local architecture and some of their specific environmental challenges including coping with sudden flooding events and water consumption.



There is mounting concern from investors, banks, sustainability experts, and policymakers globally, regarding the rate at which properties of all sectors are moving towards becoming more environmentally sustainable.



With various Paris-proof targets and building performance standards tracking those that meet the goals, it is clear that we are behind with the number of assets that remain below the required criteria stubbornly high. While rates of retrofitting vary between sectors, the two that have the most engagement in personal terms, commercial and residential, attract the most attention with property owners offering up a list of the challenges they face. Barriers to delivering retrofitting include a lack of skilled installers, lack of materials, passive political and policy frameworks, few incentive schemes, and, the most frequently cited obstacle, the financial cost of improving a building's performance. Offsetting the CapEx associated with retrofitting versus the financial benefits of improved energy efficiency remains a point of contention for many.

However, the financial aspects of greener and greening properties can prove the most motivating of forces, almost regardless of sector. As recent geopolitical issues have demonstrated, there is keen interest paid to energy consumption, green technologies, and in-use costs when energy prices rise. The potential to reduce carbon emissions from any property rests on two aspects - the energy performance of that building and the energy demands of its occupants. So, while retrofitting provides the user with the tools to reduce their impact on the environment, it is the consumption of energy that offers the greatest impact but requires, from many, a significant shift in mindset.

Real Estate and the scale of challenge

Understanding the commercial property landscape

For some occupiers and landlords, new commercial buildings that achieve the highest certifications across a series of schemes including LEED, FITWELL, BREEAM, etc, are a more desirable option. In the Netherlands, the limited supply of high-quality office space has driven rental price increases of between 5% - 17% compared to 3% - 7% for lower-performing stock. Currently, only 4% of the country's commercial space achieves a BREEAM rating of Very Good, Excellent, or Outstanding and with the slow rate of retrofitting, more than half have an Energy Performance Certificate (EPC) label that places them at risk of being stranded in line with new legislation. Coupled with locational disadvantages making them less attractive to occupiers reflected in lower rents, 73% of these poorly performing buildings are located outside of the five largest Dutch cities which is likely to have a negative impact on local economies.

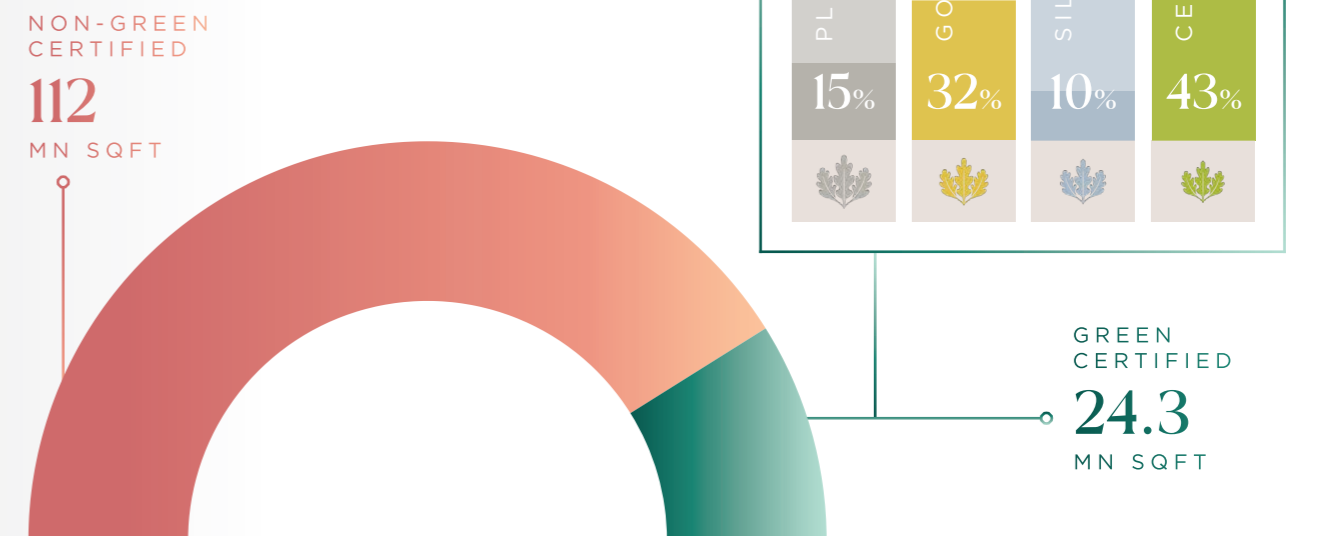
Supply of green-certified buildings remains low; their demand has also been somewhat lacklustre in the UAE.

When it comes to the UAE, the situation is somewhat similar. There is currently a dearth of green-certified office buildings. Of the total office stock that is currently available across Dubai, only 22% have a LEED certification. This also highlights another challenge for the market, wherein the region largely relies on international certifications despite the region's unique environmental challenges.

Office buildings in the region are one of the largest water consumers. The use of air conditioning systems is in widespread use because of high temperatures almost throughout the year. An air-conditioning system not only consumes vast amounts of energy but also uses large quantities of water via chilled water pumps. It comes as no surprise then that the country has one of the highest per capita water consumption rates in the world at approximately 500 litres per day, which is 50% above the global average.



Office stock across Dubai



SOURCE LEED, SAVILLS RESEARCH

Corporates in the region prefer to be located in Grade A developments across established office districts. A large share of the green-certified buildings in the country are located across established office districts such as the DIFC, Dubai Design District, EXPO City in Dubai, and ADGM in Abu Dhabi. These assets have seen a significant increase in occupancy levels over the last few years with a double-digit annual increase in rental values during 2023. While occupiers prefer to be located across Grade A developments, the green certifications of such buildings have not been the primary deciding factor in taking up space.

As such, it offers little incentives, financial or otherwise, for landlords to retrofit their assets. Demand continues to remain bullish, and the lack of upcoming Grade A supply means that demand across existing developments is likely to remain high, irrespective of their green certification.

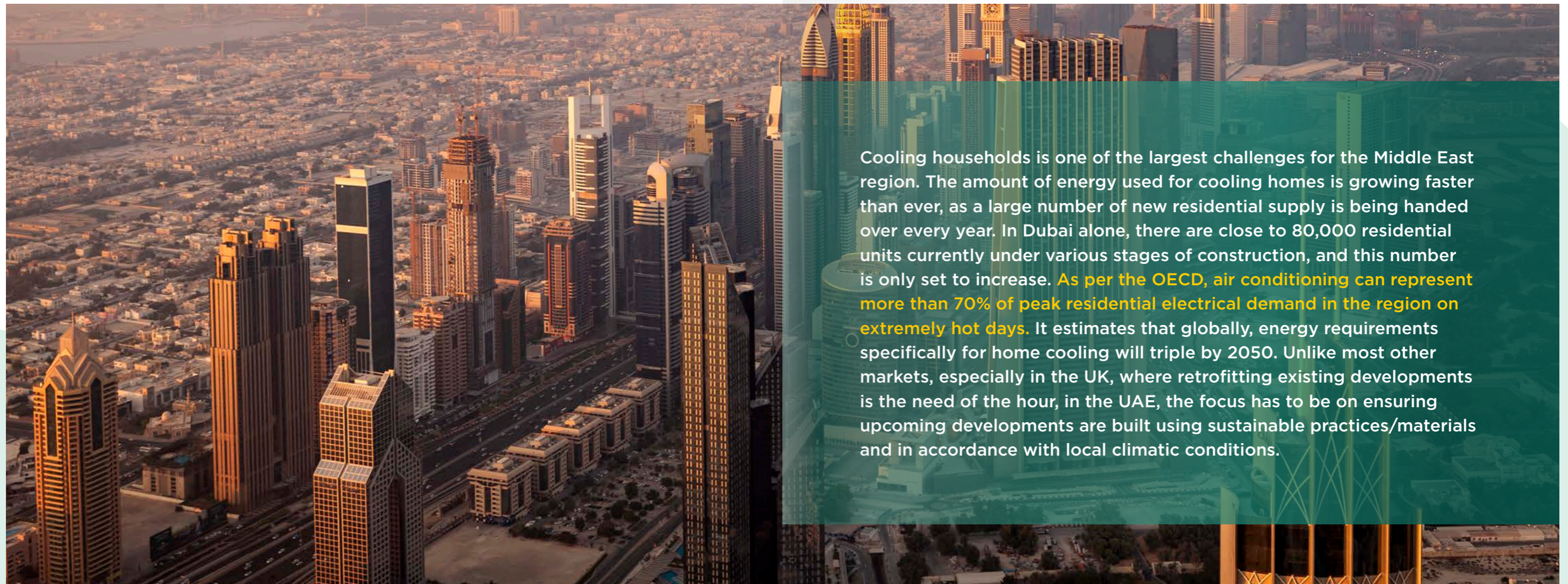
However, Savills has noticed an uptick in requests from both global and local corporates for certifications such as LEED and/or WELL, the certification scheme that focusses on occupant health and wellbeing. Although the level of inquiries is increasing, confirmation of the requirement and adoption has been slow to follow as clients reassess their priorities once the costs and program implications of pursuing these certifications are evaluated.

Landlords as part of a long-term commitment to operate and develop sustainable assets are engaging with consultants to ensure their upcoming portfolios are in line with the latest sustainability requirements.

Rising demand for ESG-compliant residential developments

Away from the office market, improving the environmental performance of existing buildings and constructing greener structures is also front and centre for other sectors. In the UK where 90% of all property is residential, the challenges of retrofitting older homes ranging from sixteenth-century timber framed buildings to stone block Georgian and redbrick Victorian townhouses of the eighteenth and nineteenth century respectively are equally hampered by the cost of retrofitting and shortages in specialist and technical materials, and skilled labour. Meanwhile, policy leadership on greening the housing stock has focussed on new build development, aiming to improve the environmental performance of future homes.

Sustainability has moved up the agenda for an increasing number of residential developers in the region. Projects such as the Sustainable City in Dubai have been successful and popular among occupiers. The project in Dubai is close to fully occupied with new schemes currently under development across Sharjah, Abu Dhabi, and Oman. Along with incorporating modern methods of construction, these developments focus on sustainable sources of energy, water recycling, and rainwater harvesting within the community and also offer urban farms as a way to support local food production and cut down carbon emissions across the supply chain. The success of the project is an exemplification of building commercially viable projects that are greener and cost less to operate and maintain.



Cooling households is one of the largest challenges for the Middle East region. The amount of energy used for cooling homes is growing faster than ever, as a large number of new residential supply is being handed over every year. In Dubai alone, there are close to 80,000 residential units currently under various stages of construction, and this number is only set to increase. **As per the OECD, air conditioning can represent more than 70% of peak residential electrical demand in the region on extremely hot days.** It estimates that globally, energy requirements specifically for home cooling will triple by 2050. Unlike most other markets, especially in the UK, where retrofitting existing developments is the need of the hour, in the UAE, the focus has to be on ensuring upcoming developments are built using sustainable practices/materials and in accordance with local climatic conditions.

The retail and leisure sectors have been slow to adopt.

With the changes in the retail landscape and its impact on both the high street and shopping malls across Europe and North America, the demand for the construction of new shopping precincts is limited so the focus here is on improving building performance and operational use of existing property.

Aside from ESG criteria and legislation and policy, consumers are a key driver for sustainability changes for retail. However, there remain several key challenges including the waste generated in retail fitouts, its associated carbon impact, and the energy required for lighting, heating, and cooling for long periods throughout the day and across the year. Despite retailers' ambitions and efforts to improve their sustainability, 80% of a retail landlord's emissions are associated with tenant activity but there are opportunities to effect positive change.

Currently, less than 10% of the retail stock across the UAE is green-certified. While tenant activities account for a large share of the carbon emissions, there are still avenues for landlords to upgrade including smart lighting in common areas, smart water meters and regulators, rooftop solar panels, and efficient waste management and recycling systems.

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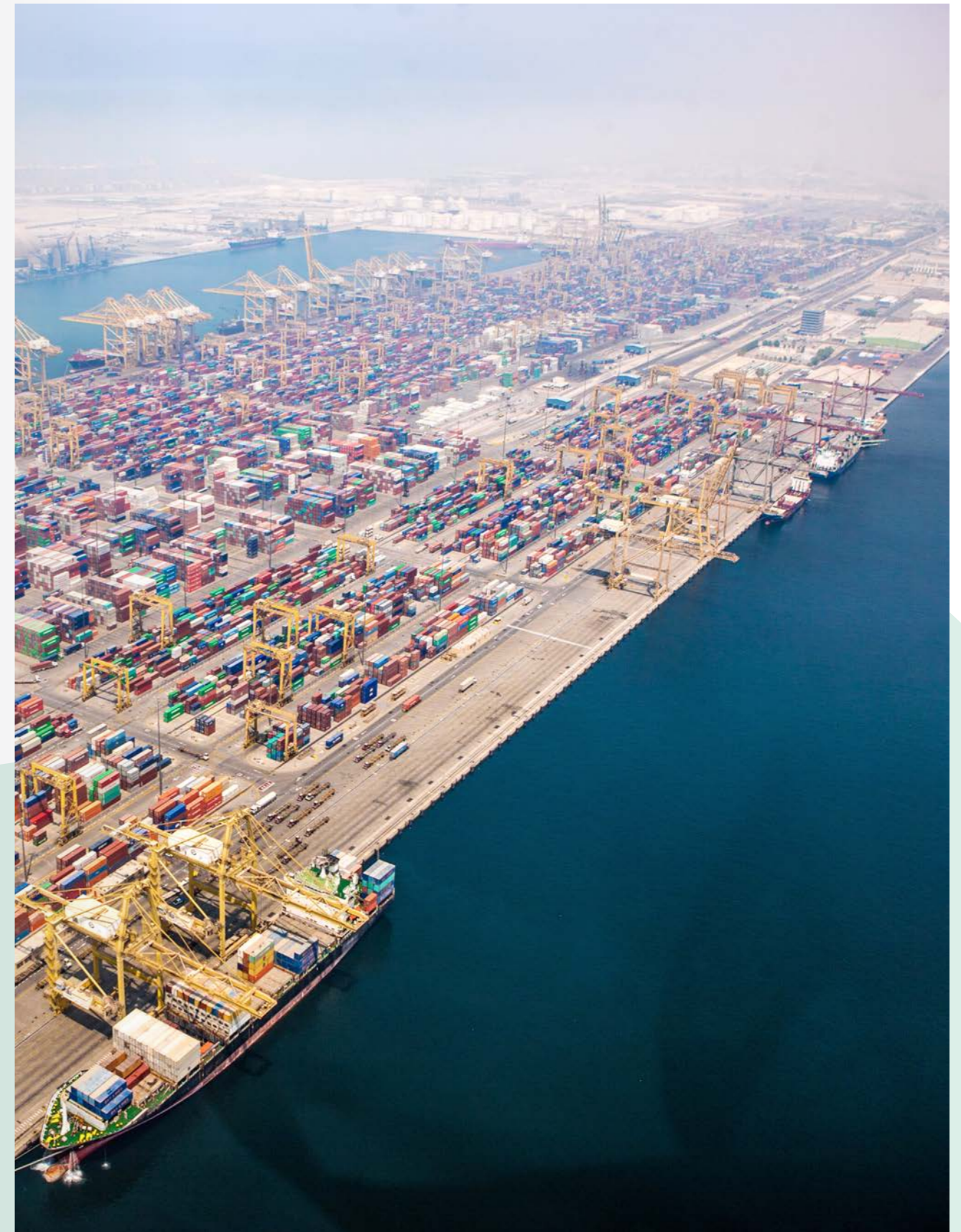
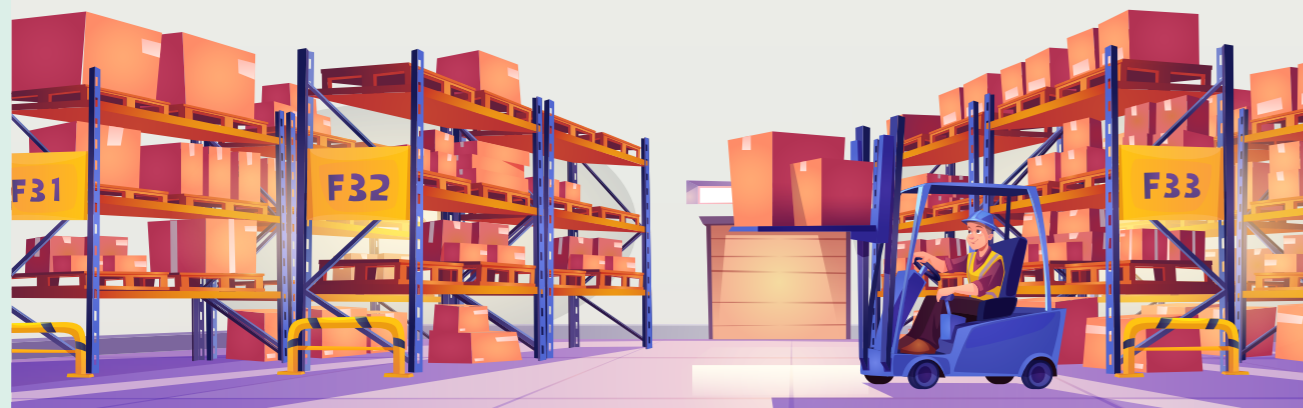


Logistics and warehousing are quick to adapt

The warehousing sector has been in focus as an investment class in the last few years. A combination of factors including the changing shopping patterns driven by growth in e-commerce focus on supply chain efficiencies, and a general rise in consumerism across established and emerging markets, have led to sustained demand for warehousing space. When compared to other real estate asset types, building a warehouse takes less time and is less complicated in terms of layout and general design. It is a segment of real estate that can be easily refurbished, and newer developments can be made more sustainable.

In the region, built-to-suit developments by prominent retail operators as well as key government-backed landlords such as Dubai South and KEZAD Group have embedded ESG principles into their development. From an operation perspective, it includes installing solar panels on rooftops to using sustainable construction materials. Unlike the retail sector where 80% of a retail landlord's emissions are associated with tenant activity, warehousing acts as a hub for promoting sustainable business. KEZAD for example is home to companies in the recycling and renewable energy sector. It also signed an agreement with Helios for an AED 3.67 billion hydrogen energy production facility that will produce green ammonia using 800 MW solar plant.

It is a segment of real estate that can be easily refurbished, and newer developments can be made more sustainable.





Often there are three key barriers to retrofitting any property. First is a consideration of the future use of the building. While adaptive reuse is not only an effective approach to addressing concerns around embodied carbon, it is not new but is often at the forefront of conversations around retrofitting notably for commercial properties where conversation around occupancy rates leads into those around CapEx.

Second, recovering the costs associated with retrofitting environmental technologies is the most fiercely debated with frequent calls for more stringent policies and statutory requirements as well as financial incentives, loans, and grants. Exemptions apply to commercial property in the UK under a rule that specifies where the installation of such technologies does not achieve a payback within seven years, a building is relieved of the responsibility. However, this does not address the demand from occupiers for more energy-efficient buildings. Finally, the potential to retrofit some buildings will be hampered by the architecture or heritage of the asset.

In the UAE, the market is at an interesting juncture. While there is a significant amount of newly built projects that are likely to enter the market, there are parts of the city where projects need to be refurbished or repurposed. This is mostly observed for the aging office stock that is undergoing a fundamental shift in terms of its use. While cost implications have been the biggest barrier to refurbishment, an increasing number of clients have realised that the long-term viability and attractiveness of the asset will be contingent on how relevant the asset is in offering a conducive and sustainable built environment to work, play, and live.

Can all buildings be retrofitted?

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