

# Real estate and ESG in a post-COVID world

## How the principles of sustainable real estate can improve outcomes during the crisis and beyond

### Overview

On the night of Monday, March 30<sup>th</sup>, the Empire State Building unveiled a new design for its mast, from a signature white to a flashing red display. The design represents “the heartbeat of America with a red and white siren” and pays tribute to health care workers, who are battling on the front line of this pandemic.

The symbol also underscores the importance of the built environment during a time of crisis and the ways in which the various forms of real estate play an important role within a community—from the network of distribution facilities to essential services within our retail buildings to apartments also functioning as home offices for many.

Although we are still moving through the acute phases of this crisis, we can already take steps to prepare real estate in light of the pandemic, both in terms of the operational aspects needed today as well as planning for the restoration of operations within buildings currently closed.

From an operational perspective, the crisis has raised issues around the “Social” of Environmental, Social, and Governance (ESG), particularly as it relates to health and wellness, where topics such as air quality have become increasingly important, along with tenant/resident communications, resilience planning, and community engagement.

For real estate managers, we believe in the continued focus on reducing expenses during this period, and managing energy and consumption can present a strong opportunity for savings in buildings experiencing lower occupancy.<sup>1</sup>

<sup>1</sup> Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect.

These savings can translate into benefits for both landlords and tenants and help them to achieve their environmental goals.

Over time, we believe there may be long-term implications to the way we invest in and manage real estate.

First, it will be important to think about how we better design healthy buildings across different property types.

Second, the new technologies that drive a more virtual world will likely necessitate that buildings have connective infrastructure and capacity. And sensor-based connectivity can help to serve as the first line of defense within the built environment, from creating contact-free systems to better screening of entrants and monitoring building health around key indicators.

This experience also raises an opportunity to enhance the partnership between landlord and tenant to better align incentives and collaboration on the topic of sustainability, which can help to create better outcomes for tenants, the property and the environment.

Ultimately the tools we use to manage through a post-COVID world, including health and wellness, smart buildings, and resilience planning are intrinsically linked to our sustainability programs and form an important part of how we think about ESG within real estate.

With the lessons learned, we can continue to implement, adapt and evolve these programs to create healthier and more sustainable buildings.

## ESG principles to manage through the crisis

The pandemic has raised key operational issues that can be addressed through an ESG-enhanced approach.

### Healthy buildings start with the air we breathe

Maintaining good indoor air quality is an important way to help combat the spreads of airborne disease. This starts with improving the fresh air delivery rate, meaning less recycling of air (and potentially the pathogens that come with it), increasing the frequency of filter changes and regular maintenance checks of air handling equipment. Humidity levels are also important to the way in which we manage a healthier building as viruses generally perform better in low humidity environments.<sup>2</sup> Given the heightened need for sanitizing, green clean protocols can help to reduce exposure to those chemicals that can be harmful to human health.

### Resilience and planning

Even before the current pandemic the topic of building resilience had become increasingly in focus given the recent rise in the frequency and intensity of natural disasters. This new crisis has underscored the need to refresh emergency planning and procedures as well as ensure that the property is prepared but also flexible enough to react to unanticipated events. There may also be an opportunity for properties to support the local community or emergency services in the event of the disaster, and in this case, it is critical to have coordination and communication between the landlord, local property managers and key stakeholders to react quickly while protecting against potential risk to the property, tenants and staff.

### Adapting buildings to occupancy changes

As many employees have shifted to working from home, there has been a significant reduction in the energy needs within offices alongside a simultaneous change in operations in residential property, creating particular stress on connectivity in these buildings. For offices, an active approach to managing energy expense (while still prioritizing the safety of the property and tenants) can help to protect operating income and reduce tenant expenses.

**Figure 1** provides a case study of the way in which office

usage can be more closely managed around occupancy shifts. Conversely, residential buildings are coping with full daytime occupancy and a significantly higher usage driven by bandwidth draining video calls. In the short term, there may likely be a need to invest in upgrades to prepare for a major shift in usage.

**FIGURE 1: CASE STUDY OCCUPANCY-BASED ENERGY MANAGEMENT IN REAL TIME**



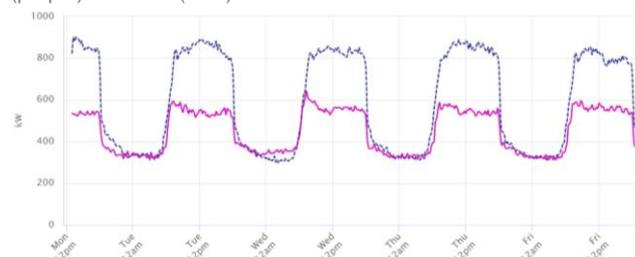
In our multi-let offices, we can use real-time energy data to manage low occupancy and reduce energy expense for landlords and tenants. Actions can include:

- Using outside air to adjust temperature, which also helps to improve air circulation
- Reducing run times, delay start up times for heating and cooling equipment
- Drastically reducing usage outside of operating hours

Expected outcomes at one building in Boston were estimated through the end of April 2020

- 169,969 kWh projected reduction
- 120 metric tons CO<sub>2</sub> averted
- USD 29, 090 in expenses saved

Table: Weekday hour use lower during the first week of April (purple) v. March (blue)



Source: DWS, 2020, Aquicore.  
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### Supporting residents and tenants

During the current period of crisis our immediate goals from an ESG perspective are to communicate with stakeholders and address the acute incidents that can occur in the building. This involves the formation of rapid response crisis teams on call to address incidents occurring at any time of

<sup>2</sup> Reiman, J.M., et al. (2018). Humidity as a non-pharmaceutical intervention for influenza A. PLoS One, 13(9), e0204337

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day and communicating with residents pro-actively and regularly.

Additionally we believe communication is important in terms of providing tenants/residents with information and access to resources that can help to support them during a time of crisis.

### *Restoring Operations*

Communication can be key in during the crisis and also in the days and weeks in which we restore operations, and it can also help to provide potentially anxious tenants with visible signs that the offices they will re-occupy are prepared for potential future outbreaks and are mitigating the spread of disease. This plan will require proper coordination between the landlord, property management team and tenants to address the infrastructure in the building, the design of spaces and the operational aspects that may change

#### **FIGURE 2. DWS 10 DIRECTIVES FOR RESTORING OFFICE OPERATIONS**

1. Develop a comprehensive communication strategy for tenants and visitors from wayfinding signage and social distancing protocols to essential hygiene practices
2. Assess operating conditions to minimize times of overcrowding
3. Devise and implement broad mental wellness strategy for reducing occupant anxiety
4. Implement stricter cleaning protocols on high touch surface
5. Increase fresh air in building to reduce recirculation of pathogens
6. Increase frequency of filter changes, use high quality filters and new cleaning protocols
7. Perform regular condition checks on outside air systems
8. Optimize humidity levels (between 40% and 60% to minimize virus transmission)\*
9. Rotate schedule for building staff, reducing risk for staff, tenants
10. Work with interior designer and architect to create better space

Source: DWS, 2020. \*Center for Active Design, 2020.

## Investing in ESG in the long-term

In the long-term, we can adapt our core ESG programming to meet the new changes we will likely experience in a post-COVID world.

### *Measuring health and wellness across property types*

<sup>3</sup> The WELL building standard and Fitwel are two programs offering independent assessments and certifications on health and wellness.

There has been a growing focus on health and wellness in the past few years, which is evidenced by the rise of new health and wellness certifications for buildings, such as WELL and Fitwel<sup>3</sup>. Similar to LEED<sup>4</sup>, and other real estate certifications, these programs have provided a robust framework to assess health topics across a variety of metrics, including air quality, access to natural light, active spaces, and healthy eating. However, while there has traditionally been more certifications within office buildings, the crisis has shown the importance of the topic across property types, including industrial properties, particularly in light of the growing number of COVID cases among warehouse workers. While it may not be possible to implement some of the more high cost strategies, especially for older buildings, it can help to inform building design. Additionally, we can implement the simple and most effective health and wellness strategies at scale, particularly where it involves low-cost, operational improvements, and we can begin to track and measure the improvement across the portfolio on key health and wellness metrics.

#### **FIGURE 3. DWS HEALTHY BUILDING EXAMPLE**



Multi-let London office building applying for a WELL Gold certification for Core and Shell  
Source: DWS 2020. For illustrative purposes only

### *Connective capacity*

The crisis has also shifted much of work and school life to an online world. In order to account for more virtual connectivity going forward, we believe there will be a need to design in more capacity in building digital infrastructure. With many offices standing empty for the foreseeable future the technological channels have been diverted into our homes. Furthermore, many logistics hubs are in overdrive to meet our new home delivery needs in this new decentralised working environment. As a result, the connectivity

<sup>4</sup> Leadership in Energy and Environmental Design (LEED) is a green building certification program and includes a set of ratings focused on energy and environmental performance.

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capabilities of many multi-family assets and out-of-town logistics centres are being tested like never before. Upgrades may be required in the short term, and for the long term the crisis may drive up industry expectations ahead of future crises and as part of a broader step-change in the way we live and work.

#### *Sensors and the first line of defense in an outbreak*

Connectivity also allows us to harness the power of sensor and smart building technology to help mitigate the spread of diseases. For instance, we can utilize our buildings systems to react with precision in identifying and addressing outbreaks. Building systems such as keycard access, security, elevator systems and building sensors, provide information on contact points for suspected and confirmed cases and also can help to map the exposure path. Using this information, we can focus on the buildings and areas at risk in order to protect our tenants/residents and staff.

As the most cutting edge technologies begin to move towards more automation, it also reduces the need for the surface contact within the building that can be often be the harbinger of germs. Sensor based technologies can obviate the need to manually open doors, swipe badges, touch elevator buttons, often the most heavily trafficked surfaces in the building. Sensors can also play a role in monitoring CO<sub>2</sub>, humidity, and temperature, and in combination with occupancy sensors and integration into the Building Management System, allow for real time adjustment to improve the air quality and health of the building. Infrared-based sensor technologies could be deployed in building lobbies as a first line of defense to help screen for visitors with fevers<sup>5</sup>. However, the use of data may also raise important questions around data privacy and security, and it will be important to maintain strong cybersecurity frameworks and strike the fine balance between the need for physical and digital protection.

#### *A better landlord-tenant model*

In order for buildings to react to the unexpected in the future, be it another health crisis, a natural disaster or regulatory moves towards stricter standards around energy and carbon, we believe it will be important to have collective engagement between landlords and tenants. By embedding sustainability across the process of working with tenants, from design standards, to capital improvements, to information sharing, there is the possibility to achieve better outcomes and create more healthy and resilient buildings.

Tools such as green leases can help to provide the rules of the road and create more flexibility to adapt to changing circumstances. For instance, while many office buildings are lying vacant, some leases may have set rules around operating hours that provide little flexibility to change the building without time-consuming lease amendments. By changing language to adapt to occupancy changes, we can create a more efficient and more sustainable model to manage buildings. Over time and as smart technology features into many more aspects of building management, we could see an increasing shift to revenue models as it relates to tenant services. This could range from moving to gross lease structures that incentivize greater efficiency savings to a move towards energy/health and wellness/resilience as-a-service allowing landlords to design, retrofit, and charge for those features and optimize around ESG outcomes for both parties.

### **Bringing it all together – ESG and Active Management**

In the wake of this unprecedented social and economic crisis, it may be tempting to reprioritize ESG to address the many acute impacts to a real assets portfolio. In fact, this crisis has underlined the need for a robust ESG program, a focus on key topics around smart building, health and wellness, and resilience, and on defining a framework that can help many stakeholders work together and to strengthen the role of real estate as a beacon during the storm.



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<sup>5</sup> Heinley, J Kevin, "Design Office Buildings to Respond to the Corona Virus", March 2020.

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