

KEYNOTE INTERVIEW

Efficiency targets drive sustainability



*Working to make its facilities more efficient for customers has led GLP into the world of renewable energy and technology, and putting sustainability at the center of its business, says **Meredith Balenske***

GLP started as a logistics specialist, but the evolving nature of global supply chains has led to its expansion into technology, data centers and renewable energy, with operations in the US, Europe, China, Japan, Brazil and Southeast Asia. GLP has more than \$120 billion of assets under management across its global operations. Its head of ESG, Meredith Balenske, explains how the company's drive for better efficiency has become intertwined with making its operations more sustainable.

Q How did sustainability become integral to GLP?

Logistics as an asset class has been

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heavily impacted by the demand for expediency, trying to make the supply chain more efficient, figuring out ways to make things faster and easier for workers and for our customers. So, we began investing in logistics and supply chain technologies as well as investing in the assets themselves; anything ranging from transportation, to managing entry and traffic through a park, to how space is utilized within warehouses.

We've invested in a lot of that ecosystem's technology. For example, you

might invest in technology to improve trucking capacity utilization and identify more optimized routes, which helps drive supply chain efficiencies, but it's also an environmental benefit as you're taking fuel-consuming, carbon-emitting vehicles off the road.

We became involved in renewable energy because the nature of our assets and their expansive roofs presented a major opportunity, and we were able to generate energy from solar panels and sell it to both the customers and to the grid. Sustainability has always been part of our business and it's even more important now, with renewable energy becoming a separate business line.

World's first net-zero carbon construction

GLP's Magnitude 314 building at Magna Park in Milton Keynes, England, is a landmark development for the logistics developer and asset manager

As well as being the subject of GLP's first social impact study, the 314,123 square feet warehouse is the first in the world to be certified as net-zero carbon for construction, according to the UK Green Building Council's (UKGBC) Net Zero Carbon Buildings Framework Definition.

The UKGBC allows three possible definitions of net-zero – in construction, in operations and in whole life. As Magnitude 314 was a speculative development, GLP opted for the construction certification.

GLP set a baseline for performance based on a previous building, which was assessed to use 12 percent less embodied carbon than a warehouse that was built to UK building regulations. A team of 20 consultants and specialists were involved to spark innovations in the process and in the supply chain required for development. Techniques included the use of lower carbon concrete, reducing transportation of earth off site and leaving ceilings exposed.

The whole life embodied carbon of the warehouse was calculated to be 12,270 tons of carbon dioxide, 25.8 percent below a standard logistics building. This carbon was offset using UKGBC-approved methods, including planting 12,000 mangrove trees in Mozambique and Madagascar. Going forward, the building will create fewer emissions in its operations.



Q Are you able to quantify the value of the supply chain efficiency initiatives in which GLP is involved?

In Japan, GLP has invested in a business called +Automation, which helps companies integrate robotics into their

logistics business. Sorting robots increase efficient use of space by approximately 50 percent compared to conventional layouts.

And in China, we created a bespoke solution for a pharmaceutical customer at GLP Park Beijing Airport, which

increased storage capacity by 40 percent. It is also highly automated and efficient, requiring about 30 percent less labor than a traditional warehouse while doubling order picking efficiency and achieving an accuracy rate of 99.9 percent.

We're also committed to adopting smart meter systems to automate the collection of data on energy and water consumption, so we can monitor and make improvements. Our customers, particularly the larger brand names and consumer-focused e-commerce companies, have their own ESG sustainability initiatives to reduce energy consumption, water consumption and waste – not to mention the requirements to report on those things. ESG measures are important to them and also to their customers.

Q Has the pandemic led to a greater focus on health and wellness?

Health and safety, particularly in relation to covid-19, drove significant technology adoption, because we needed to know who was coming in and out of the parks for the health and safety of the people working on our premises. Logistics facilities needed to stay up and running during the pandemic, so protecting the workers was a priority.

In China and Japan, the labor market is very competitive, so we prioritize wellbeing and making the working environment as comfortable as possible, such as by maximizing natural lighting, which also saves energy, greening the landscape and more. Logistics facilities also need to provide amenities such as convenience stores, nurseries and gyms. At a recent development in China, we found mature plum and peach trees on site and renovated that area so the employees can relax there and eat the fruit.

Q Some of those initiatives blur the line between environmental and social

sustainability. How important is the social aspect?

The social piece is perhaps even more interesting. A large real estate development can have a massive impact on the community in which it is built. However, what we've seen is there's not a universal set of international standards to quantify social impact.

We carried out a study in the UK to measure the Social Value Impact of Magnitude 314, a logistics warehouse at Magna Park, Milton Keynes, in order to better understand the social value generated from the development. We engaged a social value consultant to collect data during the development process in order to measure the social value generated by providing skills and employment, promoting local businesses, creating stronger communities and protecting the environment.

The measurement framework for GLP has been built around the Real Estate Social Value Measurement Methodology called the RE TOMs 2.0 (Real Estate Themes, Outcomes and Measures). A total of £4.8 million (\$6.6 million; €5.7 million) of social value was created from the £12 million project cost, by creating employment, buying locally and donating to community projects, among other things.

There's a lot of social value driven by a large logistics park's construction and operation, and we're looking for better ways to quantify this.

Renewable energy is now a separate business line for GLP, what are your ambitions for that business?

We started in 2018, when we established a joint venture with Brookfield in China to introduce solar power assets on tops of our roofs and third-party owned roofs. And given the pressures to reduce energy consumption not just regionally but globally, it's definitely a huge investment area.

Our roofs are built to accommodate the weight of solar panels, even if solar panels aren't up there yet. Our JV is set

to become China's largest rooftop solar power provider with total contracted capacity of one gigawatt by the end of 2021, which is the equivalent to the annual consumption of 750,000 homes.

We've also teamed up with DHL and Nike to open the largest renewable energy powered logistics facility in Brazil. The facility known as GLP Louveira VII in São Paulo is fitted with 785KW of rooftop solar panels and is one of the most sustainable storage facilities in Brazil, providing dedicated

“Given the amount of energy data centers consume, solar and renewable energy is incredibly important to ensure they are as efficient as possible”

charging point for electric vehicles (EV) and other innovative, technology-led environmental practices such as electric carts, scanners and robotic process automation.

Renewable energy is viewed as a separate strategy, and it's also part of our future business. So, we're looking for other investment opportunities including EV infrastructure as well as other types of renewable energy like wind.

GLP announced a new data centers business this year. That can be energy intensive. What are you doing

to make it greener?

Given the amount of energy data centers consume, solar and renewable energy is incredibly important to ensure they are as efficient as possible.

Our proprietary data center infrastructure management system provides an integrated framework to intelligently link IT and facility management with performance-related meta data to optimize power usage effectiveness (PUE) and cost efficiency. Our developments are also fitted with rooftop solar panels to reduce power consumption. By using technology and smart design, GLP's data centers can help customers achieve 5-10 percent higher PUE compared with the industry average, which helps them reduce their operational costs and meet their sustainability goals.

Q Has GLP set a net-zero target?

We will be carbon neutral before 2050. The focus is on making our transition to net-zero credible and we're simultaneously working to reduce both embodied and operational carbon emissions. We are focusing on less carbon-intensive construction methods and materials; for example, using timber frames in certain markets to reduce the usage of steel, lower carbon concrete mixes and foundations that require fewer materials.

But, while we've developed most of our assets in China and Japan, we have acquired many in Europe, and need to consider improving the sustainability of acquired assets. To reduce operational carbon integrate natural lighting, air tightness, LED lighting, etc and work closely with customers to reduce their impact.

The goal is to reduce embodied and operational carbon emissions as much as possible so we can minimize our off-setting activities. We are taking action for the carbon in the portfolio, but it's a work in progress and it will take some time particularly with our global operations. ■