



John Lewis Vangarde Shopping Park, York, UK

Lateral Technologies used IESVE to achieve 35-40% less carbon than other similar John Lewis stores and are now using iSCAN, a new powerful IES tool, to identify performance gaps to deliver a soft landing.



JOHN LEWIS
VANGARDE SHOPPING PARK,
YORK, UK

SECTOR: IES ICL

DATE: April 2019

COUNTRY: UK

www.iesve.com/icl





When John Lewis asked Lateral Technologies to help create its most sustainable store ever, the mechanical and electrical design consultancy not only had to come up with a BREEAM outstanding design, but also find a way of ensuring the design lives up to expectation.

John Lewis have set a target to reduce absolute carbon emissions by 15% across all its stores by 2020. Because the retailer is growing and adding new shops, achieving this target means the carbon emissions for new shops must be 30% less than similar existing shops. This includes John Lewis York, a new department store in Vangarde Shopping Park, York.

In order to achieve this target Lateral Technologies used IES Virtual Environment (IESVE) to analyse the performance of the store and find the best energy saving strategies. Measures taken included the installation of a 450kw chiller, requiring 25% less energy than those in other stores, Photo Voltaics (PV) roof panels to generate 4% of the store's electrical energy from a renewable source, building air permeability of less than 3.0 m³/(h.m²) and full LED lighting, requiring 40% less energy than other artificial lighting methods.

In order to demonstrate that the store performs as expected, Lateral Technologies are continuing to monitor it using iSCAN, a new powerful IES tool. This allows them to import the actual building data back into the model, so they can continuously analyse the occupied building to quickly identify any performance gaps to deliver a soft landing.

"The level of detail provided by the iSCAN model is incredible, enabling us to analyse how everything from the HVAC to the escalators to the catering equipment is performing."

Paul Paterson
Sustainability Design Manager,
Lateral Technologies

KEY FACTS

- Most sustainable John Lewis store to date
- BREEAM Outstanding Rating
- 35-40% reduction in carbon compared to similar stores
- £15m project

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www.lowcarbonconsultant.com
www.johnlewis.com

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