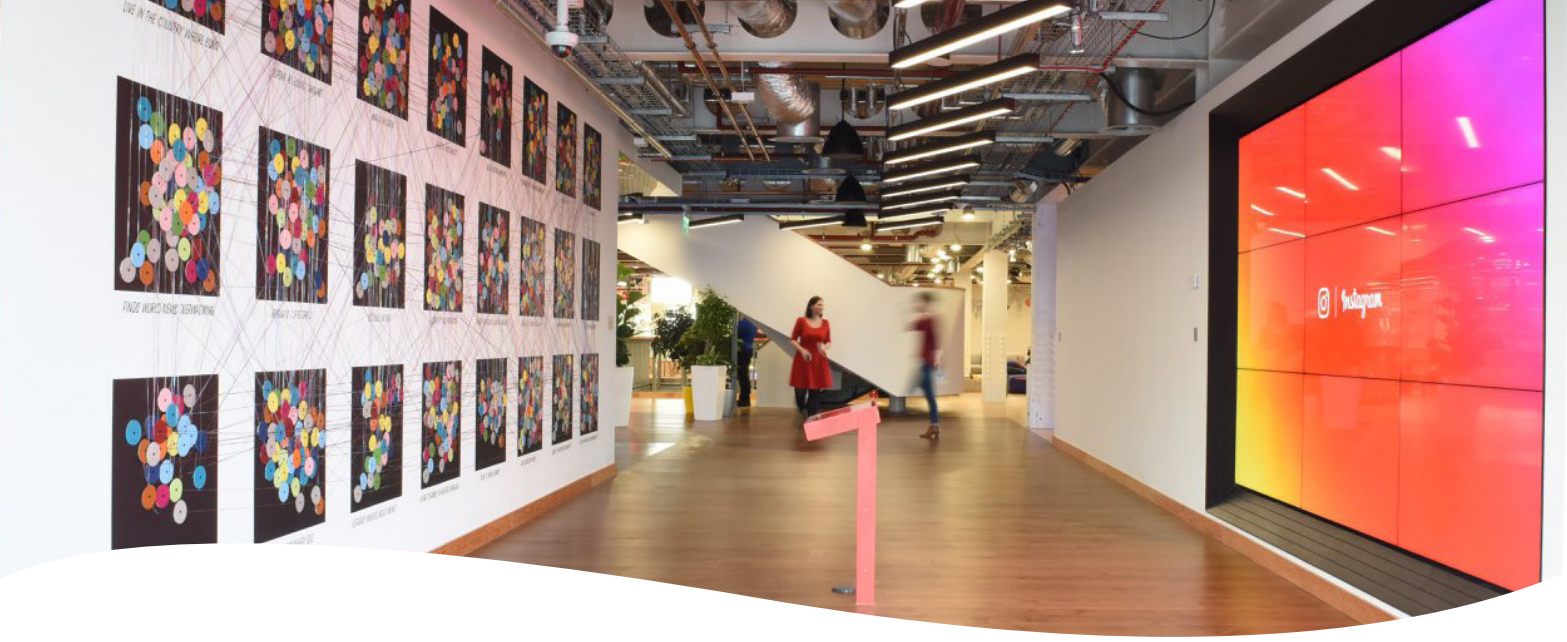

CASE STUDY

Efficiently Operating Our Workplaces

At Facebook, we aim to minimize our energy, emissions and water impact, while embracing the responsibility and opportunity to impact the world beyond our operations.

The opportunity

When we build new office spaces for our people, we strive to create sustainable workplaces by prioritizing the use of healthy and sustainable materials, creating solutions that advance employee wellbeing and minimizing our impact on the environment. While we will source 100% renewable energy for our operations in 2020, we also work to reduce our overall demand, which is why energy efficiency at our offices and other facilities is a key focus for Facebook. For our larger offices in the UK and Ireland, we saw an opportunity to leverage ISO 50001 and implement a more systematic approach to driving energy efficiency.

25%

Reduction in electricity and natural gas consumption at facilities adopting ISO 50001

The solution

The International Organization for Standardization (ISO) 50001 is an international energy management standard that provides organizations with a framework to continuously improve their energy performance and efficiency, helping them identify untapped areas to enhance energy efficiency. It also provides guidance on creating customized energy use policies and generating specific reduction targets for individual facilities.

We knew that without a deliberate and prioritized approach to managing our energy consumption, we were missing opportunities to standardize energy efficiencies, and potential cost savings, across our operations. Once the Facilities Operations team decided to adopt the ISO 50001 model for our facility in Dublin, the first step was developing a workflow to engage cross-functionally. In our first year, the team worked to ensure that everyone from senior leadership to internal stakeholders across different teams – including culinary, facilities, finance and procurement – were thinking about energy optimization for the facility in a holistic way. We developed an energy policy for all offices seeking the ISO 50001 certification that not only ensured further alignment on the goals for this program, but also outlined our specific approach to reducing energy consumption.

> “In our first year, the team worked to ensure that everyone from senior leadership to internal stakeholders across different teams... were thinking about energy optimization for the facility in a holistic way.”

A key benefit of using the ISO 50001 is the technical approach to identifying areas for improvement and collecting quantifiable data around our energy use. Through an internal audit of our building's systems, we found subtle areas where we were using more energy than necessary – such as temperature systems working against each other – that could be easily addressed with system-level management. The data we collected became a baseline for how we would measure the program's success. As a result, we were able to implement a number of measures to enhance energy efficiency, including modifying unoccupied-hours setbacks, upgrading lighting in core areas of the building, increasing system-level metering and updating our automated building management system (BMS) to achieve optimum performance. We also did an optimization study of our heating plant and existing equipment, identifying opportunties to use outdoor air to cool the facility – also known as "free cooling" – wherever possible. Depending on the environment, using outdoor air or other innovative cooling strategies allows us to reduce energy use and cost.

The impact

We achieved our first ISO 50001 certification in Dublin in 2017. In the following year, we were able to extend this certification to four other offices in Ireland and the UK. By adopting this standard, we effectively reduced our electricity and natural gas consumption at these facilities by 25%, compared to our 2017 baseline.

While the ISO certification may not be applicable for every one of our offices, we've been able to apply the strategies from this certification process and develop energy management strategies tailored for our smaller facilities. Now three years into the program, we are currently in the process of launching a large-scale lighting retrofit program in 2020 to continue our efforts to upgrade efficiency in our building systems across our global facilities, and all new buildings will have updated lighting and controls installed as part of our technical guidelines. As we expand our presence to connect more people around the world, we will continue to protect the environment and the communities in which we operate.

"We achieved our first ISO 50001 certification in Dublin in 2017. In the following year, we were able to extend this certification to four other offices in Ireland and the UK."

More information
For more information visit our Sustainability site at sustainability.fb.com