record

The hidden potential of your automatic doors

Why your door settings matter more than you think

Your global partner for entrance solutions

Overview

Commercial door openings do more than just provide access – they are key players in reducing operational costs, enhancing indoor comfort, and supporting sustainability efforts. With constant foot traffic, these entry points can be a major source of heat loss and air infiltration, making their design and efficiency critical to a building's overall energy performance. Investing in well-constructed, high-performing door solutions isn't just about functionality – it's about smarter, more sustainable building management.

While automatic door openings are designed for convenience and accessibility, their impact on energy-efficiency depends on proper sealing, insulation and operation. Many doors allow conditioned air to escape, forcing HVAC systems to work harder, increasing energy use. Glass type, framing materials, door speed, hold-open time, and opening and closing speeds all influence a door's efficiency. When these factors aren't optimised, automatic doors can become a significant source of energy loss.

By contrast, well-insulated doors with tight seals, thermal breaks, double-pane glass, and properly adjusted door settings – such as hold-open times and open and close speeds – help maintain indoor temperatures more effectively. This results in lower energy consumption, reduced utility costs, and long-term savings for building owners and operators.

Beyond cost savings, energy-efficient doors contribute to occupant comfort. Temperature fluctuations caused by inefficient doors or poorly adjusted door settings can create uncomfortable indoor conditions, affecting employees and customers. In addition, automatic doors can influence indoor air quality by reducing the infiltration of pollutants. Proper insulation of doors and optimal operational factors of automatic doors ensure a stable and comfortable indoor environment, improving overall well-being and workplace efficiency.

From an sustainability perspective, improving door efficiency supports sustainability goals by reducing carbon footprints. Lower energy consumption means fewer greenhouse gas emissions, aligning with global and regional climate policies such as the EU Green Deal and certifications such as LEED (Leadership in Energy and Environmental Design). As businesses continue to prioritise environmental responsibility, investing in energy-efficient automatic doors is a key strategy for meeting green building standards and reducing operational impact on the environment.

Door openings are key to reducing operation costs, enhancing indoor comfort and driving sustainability efforts.

Enhancing Energy Efficiency Through Door Design and Operation

Energy efficiency within buildings can be increased by maintaining a tight building envelope and selecting appropriate materials and proper installation techniques. Ensuring that all doors in a facility, both manual and automatic, are taken into consideration, energy loss can be reduced. This can also lessen the load on heating, ventilation, and air conditioning systems.

Several Record automatic doors utilise thermally broken glazing to reduce the amount of energy needed to heat or cool a building, resulting in lower costs and a smaller carbon footprint for businesses. Often, automatic doors can be fitted with optional thermo glass, thermal break profiles, and very tightly fitting brushes to further reduce environmental costs.

However, many automatic sliding doors still exhibit significant and continuous heat exchange due to fixed operational settings such as opening and closing speeds and hold-open time. Utilising the same settings for all customer traffic volumes (high/low), indoor/outdoor temperature differentials, and time of day may result in energy efficiencies and unnecessary door wear-and-tear. We developed ecoLOGIC to adapt to varying conditions, eliminating these operational inefficiencies and enhancing our doors' energy-saving capabilities.

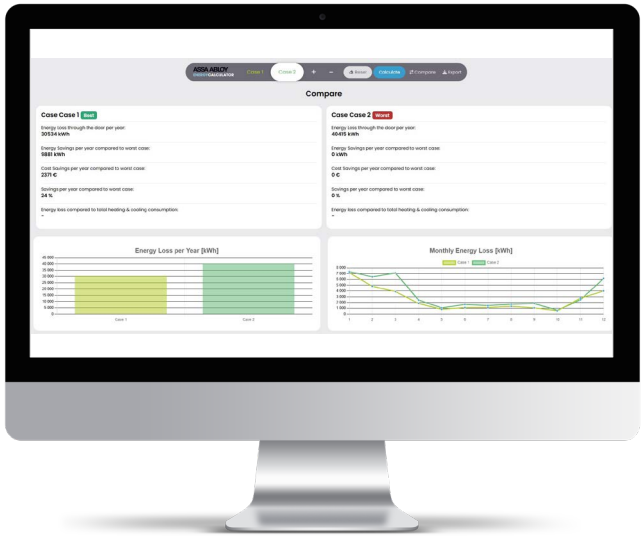
Record ecoLOGIC

While automatic sliding doors may result in higher heating and cooling costs, they are incredibly appealing for inviting people into a storefront or building and significantly boosting foot traffic (as well as related sales). Our studies show that a typical automatic door of a street-facing, medium-sized retail store stays needlessly open for 288 hours each year. This means significant energy is lost when heating or cooling the store. We developed ecoLOGIC to minimise this energy loss, reduce the store's environmental impact, and save customers money.

What is ecoLOGIC?

ecoLOGIC is a secure, cloud-based AI solution that controls door behaviour. It can adjust the speed of opening and closing and the hold-open time. By allowing ecoLOGIC to manage these settings automatically, customers can save about 14,000 kWh per year per store. Additionally, the number of door opening cycles is typically reduced by 2–7%, leading to less wear and tear on the door. All this significantly reduces the customer's heating and cooling costs – and their carbon footprint.

ecoLOGIC seamlessly integrates with the Record Insight platform, a powerful suite of applications that transforms door data into actionable insights. More than just an energy-saving tool, Insight helps businesses optimise their operations with advanced features like door usage analytics, error and alarm monitoring, and service history tracking. With these tools, customers can make smarter, data-driven decisions, proactively manage maintenance, reduce costs, and extend the lifespan of their doors – all within a single, user-friendly platform.



ecoLOGIC in Action: Proven Energy Savings

It's common sense — when doors stay open less, less energy escapes. And while the theory is clear, businesses need hard proof before they believe in the savings. That's why we put ecoLOGIC to the test in real store conditions. With the support of third parties, we've developed an energy-savings calculator based on billions of real-world data points from customer pilots. To validate its accuracy, we ran a controlled study in five cities across Belgium, using ten stores from a major European retail chain.

The selected stores are approximately 1,000 square meters and welcome around 1,200 customers per day. To ensure a fair comparison, we paired stores in the same locations with similar layouts and foot traffic. In each city, one store used ecoLOGIC, while the other served as a control store.

By normalising the energy cost per door cycle, we demonstrated significant energy savings. Stores with ecoLOGIC reduced energy consumption by over 8 %. Over the course of a year, this translates to an estimated savings of 9,000 kWh per store, or approximately € 2,250 in reduced heating costs (based on an energy price of € 0.25 per kWh).

How ecoLOGIC Optimises Door Performance for Energy Efficiency

Unlike static door settings, which do not account for changing conditions, ecoLOGIC continuously analyses real-time data to make intelligent, automated adjustments that minimise unnecessary energy loss.

Dynamic Adjustments Based on Traffic and Weather Data

ecoLOGIC leverages real-time customer traffic flow and weather conditions, including temperature, humidity, wind speed, and wind direction, to optimise door operation. By processing this data, the system automatically adjusts:

- Hold-open times — Extending during peak traffic periods to improve accessibility while shortening when traffic is low to reduce heat loss.
- Opening and closing speeds — Accelerating during cold or windy conditions to maintain indoor temperature stability and slowing when energy efficiency is the priority.
- Fresh air intake — Allowing longer door openings when outdoor temperatures are favorable, reducing reliance on mechanical heating and cooling.

For example, on a cold and windy morning with low customer flow, ecoLOGIC reduces hold-open times and increases closing speeds to prevent excessive heat loss. Conversely, on a mild summer morning when indoor exceeds outdoor temperatures, it deliberately extends hold-open times and slows door closure to introduce free cooling from the outside air.

AI-Powered Continuous Learning for Long-Term Optimisation

ecoLOGIC is not a static system; its AI continuously refines its predictive model by incorporating historical data, seasonal trends, and customer flow patterns. As conditions evolve, ecoLOGIC ensures that door settings remain optimised for both energy savings and occupant comfort, improving efficiency over time.

Conclusion

ecoLOGIC offers a smart, data-driven approach to energy efficiency, helping businesses reduce operational costs, minimise environmental impact, and enhance indoor comfort — all while maintaining an optimal customer experience. By dynamically adjusting door settings based on real-time traffic and weather conditions, ecoLOGIC delivers measurable energy savings, lower maintenance costs, and extended door lifespan. For organisations looking to optimise building performance and sustainability, ecoLOGIC provides a proven solution with a clear return on investment. To learn more about how ecoLOGIC can benefit your business, contact your local Record sales representative for a consultation.

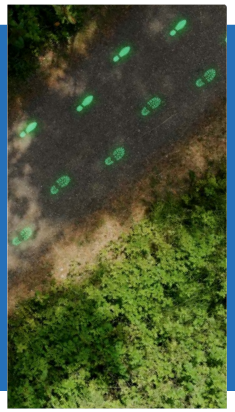
ecoLOGIC Summary

- ecoLOGIC dynamically adjusts door settings to minimise unnecessary open time.
- ecoLOGIC helps reduce energy usage and carbon footprint.
- ecoLOGIC can generate large cost-savings from reduced heating and cooling needs.
- ecoLOGIC can reduce opening cycles by 2–7%, prolonging the life of the door.

In Focus:
The Impact of Sustainability Standards on Energy Efficiency

Energy efficiency is a cornerstone of modern sustainability efforts, and the European Union (EU) plays a leading role in shaping policies that drive improvements in this area. Through a combination of binding regulations, directives, and sustainability certifications, the EU ensures that industries, businesses, and households adopt energy-saving measures that reduce environmental impact, lower energy costs, and promote long-term sustainability.

One of the most significant legislative frameworks in this regard is the EU Energy Efficiency Directive (EED), which establishes binding targets for reducing energy consumption across all sectors. The directive sets the goal of cutting overall energy use by at least 11.7% by 2030, requiring member states to implement policies that enhance efficiency in buildings, transportation and industrial processes. The Energy Performance of Buildings Directive (EPBD) complements this by mandating minimum energy performance standards for new and existing buildings, ensuring that construction practices incorporate high-efficiency materials and technologies. These laws directly impact businesses by encouraging the use of energy-efficient doors, windows, insulation, and heating and cooling systems, reducing operational energy demand.



The EU Energy Efficiency Directive's goal cuts overall energy use by

11.7% by 2030

In addition to regulations, sustainability certifications such as LEED (Leadership in Energy and Environmental Design), BREEAM (Building Research Establishment Environmental Assessment Method), and the EU Taxonomy for Sustainable Activities serve as influential drivers of energy efficiency. These certifications provide standardised frameworks for evaluating a building's environmental impact, including its energy efficiency. For example, a LEED-certified commercial building must meet stringent criteria related to energy conservation, including the use of efficient lighting, heating and cooling systems, and insulated doors and windows. BREEAM, widely used in Europe, assesses buildings based on their sustainability performance, rewarding energy-efficient designs, and responsible resource use. Businesses that achieve these certifications benefit from lower operational costs, enhanced marketability, and compliance with EU sustainability goals.

Another critical policy is the Fit for 55 package, a collection of EU initiatives aimed at reducing greenhouse gas emissions by 55% by 2030. This package includes reforms to the EU Emissions Trading System (ETS), which places a price on carbon emissions, further incentivising companies to adopt energy-efficient practices. For businesses operating in the EU, reducing energy consumption is not only a regulatory necessity but also an economic advantage, as compliance with emissions standards can lead to cost savings through lower energy bills and reduced carbon pricing penalties.

The role of EU laws and certifications in shaping energy efficiency extends beyond financial and environmental benefits; they also impact consumer and investor expectations. Many businesses seek sustainability certifications to enhance their reputation, attract eco-conscious customers, and secure funding from investors who prioritise environmentally responsible projects. Under the EU Green Deal, sustainable investments are encouraged through the EU Taxonomy, a classification system that helps investors identify environmentally sustainable economic activities. Energy-efficient buildings and infrastructure projects are more likely to receive funding and tax incentives, making compliance with EU energy laws and certification standards a strategic decision for businesses.

Learn More

To learn more about ecoLOGIC, visit https://www.recorduk.co.uk/en/ecoLOGIC_campaign_page

The Record Group (part of the ASSA ABLOY Group) is an industry-leading manufacturer of automatic door systems. Founded in Fehraltorf, Switzerland in 1953, Record has historically relied on combining its global presence with local reach to achieve customer satisfaction and success; pushing the boundaries of product innovation from the start, Record's product range today includes top-quality revolving doors, sliding doors, swing doors, hermetic doors and security entrance solutions. Together with its well-known maintenance service, which supports and inspires clients around the world, Record is proud to offer end-to-end entrance solutions to suit any business' individual needs.

Find out more at www.record.group

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