

Green Security

How Access Control Plays a Supporting Role in Sustainability Efforts



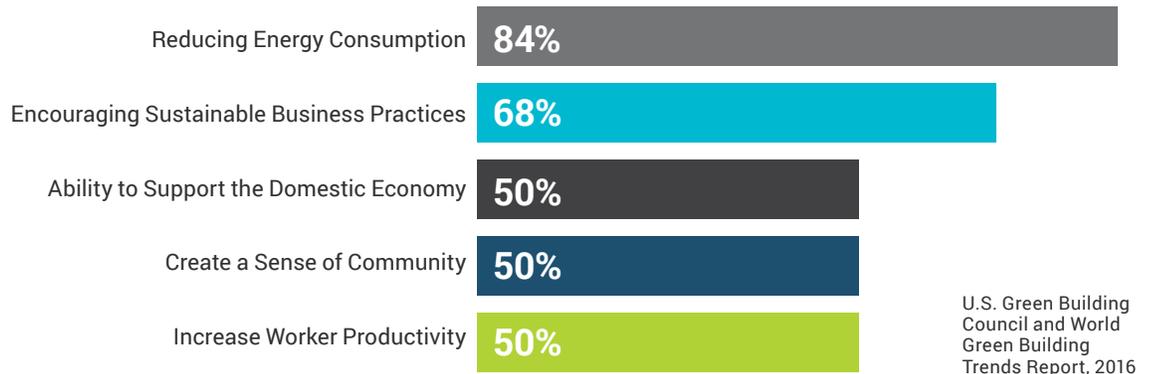
The use of the term “going green” has risen exponentially over the last several years as organizations look for ways to engage in more sustainable business practices, upgrade their facilities to reduce energy consumption and make advances toward lowering their carbon footprint. And consumers are watching. In a 2017 study by Unilever, 33 percent of consumers reported choosing to buy and support brands they believe are doing social or environmental good. In fact, in the same study, 53 percent of shoppers in the United Kingdom, 78 percent in the United States and more than 80 percent in emerging markets said they feel better when they buy products that are sustainably produced.

Engaging in sustainable construction and design practices for new builds is one way this emerging wave of green practices is taking place. And in the near term, organizations are responding to customer demand by looking at ways to reduce overall energy and resources consumption by incorporating more efficient solutions as well as materials that produce little to no waste. This trend is signaling a shift in how sustainable practices, products and design will better serve organizations and their customers for generations to come.

By the Numbers: A Look at Sustainable Practices

According to the U.S. Green Building Council and the World Green Building Trends 2016 report, green building continues to double every three years with 46 percent of green building activity happening in the commercial building segment. Across the board, respondents projected that more than 60 percent of their projects would be green projects by 2018, with activity in institutional buildings – schools, hospitals and public buildings – expected to increase end over end.

A recent U.S. Green Building Council report states that reducing energy consumption and encouraging sustainable business practices were primary drivers for green building initiatives.



In the same study, reducing energy consumption was chosen as a primary driver for green building initiatives from an environmental standpoint (indicated by 66 percent of all respondents from all 13 countries included in the study), protecting natural resources ranked second globally (37 percent), reducing water consumption ranked third at 31 percent, and lowering greenhouse gas emissions ranked fourth (24 percent).. “As evidenced in the Unilever study mentioned earlier, the focus on sustainability not only in business practices, but also in energy-efficient and ‘green’ building initiatives – is crucial to many organizations.”

According to the U.S. Green Building Council, more than 2 million square feet of new space is LEED certified every day along with more than 92,000 certified projects – indicating the depth of focus on sustainability.

Other social drivers contributing to green building included encouraging sustainable business practices (58 percent globally), followed by creating a sense of community (29 percent globally), its ability to support the domestic economy (29 percent globally), and increasing worker productivity (29 percent globally).

“Creating sustainable buildings is not just about meeting energy regulations and becoming LEED certified, it’s about creating a building that stands the test of time and transcends generations,” said Greg Mueller, CEO/Principal, Tucker Sadler Architects in San Diego, California. “We have a significant issue in the U.S. connected to building for the short term tearing down buildings and filling landfills with construction waste that will be around for years and years to come. Many companies are making decisions based on the dollar amount, but if we make decisions that are more sustainable when in the design phase, the product is better, the building is healthier and the life of the facility has more longevity to it.”

Access Control and Sustainability Efforts

Sustainability efforts can be executed in a variety of ways, from the introduction of solar and wind power to building a LEED-certified facility to installing LED light bulbs and incorporating refillable water bottle stations. But organizations must consider that technology already exists (and might already be installed) that can fit into the sustainability puzzle, including physical access control systems.

There are several ways that existing access control system investments can be leveraged to reduce a facility’s carbon footprint and lower energy consumption. Some of these initiatives include integrating with building automation systems, installing power-saving card readers and controllers, utilizing single-source controls for smart buildings and incorporating products with industry



certifications that indicate sustainable practices. And budget doesn’t need to be a barrier as these are not all-or-nothing solutions. Budgets can be re-allocated and attainable options incorporated to streamline the investment.

Power Saving Readers

One trend in access control-driven energy efficiency is the installation of readers designed to save energy. Intelligent power mode, which is available in some of today’s leading readers like HID Global’s iCLASS SE® Readers, allows the

device to be configured to enter a power saving mode similar to that of a laptop or mobile phone after a pre-set period of inactivity. Typically, these readers are located where there is less traffic, such as internal doors, IT equipment closets, etc.

Customers looking for technology that brings this kind of innovation to the table should look for the GreenCircle™ certification, an independent third-party validation for sustainability claims. The GreenCircle Energy Savings certification provides documentation that the product delivers the

energy savings it claims. From the Green Circle site: “GreenCircle will conduct a detailed evaluation and scientifically assess, within laboratory and active settings, that a product does, in fact, save energy as compared to a traditional or similar product. Certification will document the product’s energy savings (by percentage) compared to a standard/similar product based on GreenCircle’s independent evaluation. Consumers of products that earn GreenCircle’s Certified Energy Savings mark can rest assured that those products will reduce energy consumption as compared to a traditional/similar product.” HID Global’s iCLASS SE, multiCLASS SE® and pivCLASS® readers earned the GreenCircle Certification for 59 percent energy savings while in Intelligent Power Mode (IPM) as compared to the same readers without the IPM configuration.

Integration with Building Automation

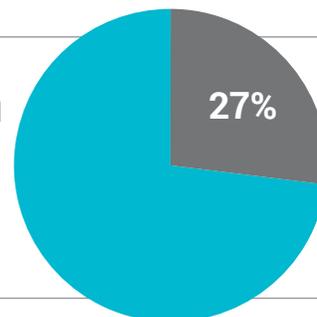
Another major sustainability trend is the implementation of building energy management and building automation systems that incorporate heating and cooling, access control, lighting and other sensors that work together to reduce energy consumption based on usage. The intelligent building market is growing 31 percent annually and is expected to exceed \$59 billion by 2023, according to new research from Edith Cowan University in Perth, Australia. The demand is being driven by government regulation considerations and the desire for reduced operating costs and greater monitoring, control and operability.

According to IHS Markit analysis and the 2018 Smart Buildings Report, electronic access control systems are the leading type of security system being integrated into building management platforms. In 2017, 27 percent of access control equipment shipments were installed and connected to a building management system (BMS), including readers, door controllers and electronic locks.

“Access Control is a foundational element of smart building technology, as it shares core data with building management systems,” said Brandon Arcement, Director of Product Marketing, HID Global. “However, coupled with HID Location Services and occupancy data, building management becomes more passive for users while providing richer data for a building automation system to know who is in the building, how they’re moving around a facility and correlate heating, cooling and lighting around these activities.”

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IHS Markit, 2018 Smart Buildings Report



In 2017, 27% of physical access control equipment shipments were installed and connected to a building management system.

Space utilization and occupancy data gathered through location services technology provides even more information that can help make a building energy efficient. While access control is critical, location services add significant value to customers who are looking to enhance their sustainability efforts.

“Transparency is critically important when striving to meet high levels of sustainability in business. Seeking out manufacturers that are in line with these values can help reach your goal of achieving sustainability on a larger scale within your organization.”

—Brandon Arcement, Director of Product Marketing, HID Global

Sustainably Sourced Materials Considerations

For many, nutrition labels are a must-read to learn about the types of ingredients – good or bad – that go into our favorite foods. Similar to this practice – but not required by law – are the Environmental Product Declarations (EPDs) which detail the materials used in a product and the impact it has on the environment throughout its lifecycle. The product’s footprint during extraction of raw material, transportation, manufacturing, packaging, use and end of life is included in the Life Cycle Assessment within the EPD; giving architects, facility managers and end users the pertinent information needed to make product decisions with sustainability in mind.

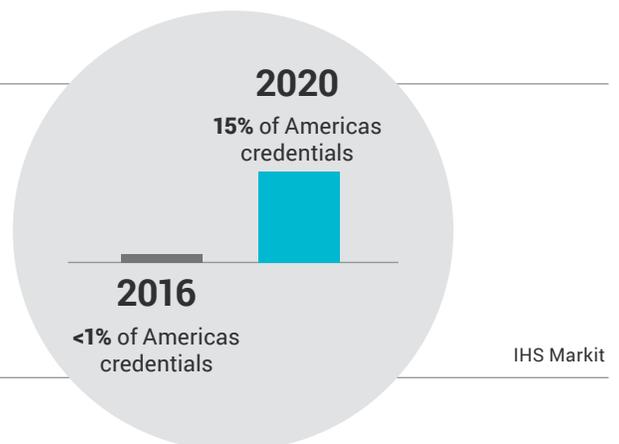
Products with EPDs can be used to earn points toward green building certification programs, such as LEED; making EPDs an important indicator for organizations looking to achieve these recognitions. “Transparency is critically important when trying to strive to meet high levels of sustainability in business. Seeking out manufacturers that are in line with these values can help reach your goal of achieving sustainability on a larger scale within your organization,” said Arcement.

Mobile Credentials

According to IHS Markit, it is estimated that 551 million physical access control credentials will be issued in 2018 primarily using traditional and non-recyclable PVC plastic.

The introduction of mobile credentials offers a choice in access control technology. By 2020 IHS Markit predicts 15 percent of all credential holders will have mobile credentials that are at least complementary to their physical credential, if not primary. This can significantly reduce PVC plastic waste, as well as reduce the cost of producing PVC credentials for the organization.

Mobile credentials to grow from less than 1% of credential shipments to 15% in four years



IHS Markit

The benefits aren't limited to waste reduction. Mobile credentials offer organizations a host of benefits including user convenience, operational efficiency, and increased security.

User Convenience

By adding access control credentials to a mobile device, users don't have to carry or store an additional fob or card to access secure locations, networks, time and attendance systems, or to release documents from a network printer or make purchases from a vending machine.

Operational Efficiency

Because mobile devices are WiFi enabled, administrators can issue, manage and revoke credentials over the air, saving time for both security staff and human resources.

Increased Security

Additionally, mobile devices offer an added layer of security. Users are increasingly tethered to their mobile devices, constantly aware of their location and prone to privacy safeguards often locking them via password or biometrics like fingerprint or facial recognition.

Companies like HID Global and its parent company ASSA ABLOY hold more than 50 percent of the mobile credentials market, and more than 2,000 end-user organizations are already utilizing mobile credentials in an effort to reduce waste and streamline building access.

The Future of Sustainability and Security

The growth of sustainable business practices in today's organizations and across industries is influencing the products being developed by the security industry, such as mobile credentials and energy-efficient access control readers. Forward-thinking organizations are taking these initiatives seriously as they look to invest in technologies that meet customer demand, deliver energy savings and target the reduction of waste.

Companies like HID Global offer customers a selection of efficient and sustainable products and solutions that meet stringent security needs while delivering robust protection for end-users, security operators and managers.

5 Ways to Lower Your Carbon Footprint Using Access Control

Whether you bring your own water bottle to reduce plastic usage or save rainwater. There are a also number of ways to personally reduce your carbon footprint. But there are also a number of ways your company can help reduce the energy used and wasted through systems that are already in place (*think: physical access control*). Here are five ways companies can lower their carbon footprint through access control:

- **Intelligent Power Management Mode-enabled Card Readers.** As intelligent readers permeate the market, the technology offers exponential opportunities to tailor solutions to a customer's needs. In many readers offered by HID Global, customization tools exist that allow companies to set a reader to "power-save" mode when not in use, which can be especially helpful on internal, lower-use doors. Not only does this save energy, it reduces the amount of power used by the readers over time.
- **Location Services and Occupancy Data.** The knowledge of how building occupants move through a facility on a regular basis is crucial to an organization's overall picture of building usage. By integrating location services into the access control platform, facility managers can gain a better understanding of which parts of the building are most used and adjust lighting and access levels to better serve employees and visitors.
- **Building Automation Integration.** Linking usage to heating and cooling, as well as lighting requirements can help an organization save money on energy consumption. This can be done through the integration of physical access control systems with building automation solutions to streamline this process.
- **Look for Transparency and Certifications.** Many companies seek verification from the International Organization for Standardization to provide disclosure regarding the environmental impact of their products or systems. Certifications can also be achieved that validate green building specifications, waste reduction, increased energy efficiency and other meaningful efforts to increase sustainability. Access control products can also achieve these declarations and certifications and it's important to look for these when making purchasing decisions.
- **Mobile Credentials.** Mobile credentials are emerging on the market as a way to not only make access control flexible and scalable, but also reduce plastic waste from PVC cards being issued. And the market is growing, indicating a shift in this practice.

Sustainability 101

For many manufacturers, taking the added step of achieving sustainability certifications indicates to customers the importance of creating best practices that are green and take efficiencies to the next level. The following certifications are recognized in the physical access control market:



GreenCircle™

GreenCircle™ is an independent third-party certification for environmental and sustainability claims. Organizations can be confident that products labeled with the GreenCircle Certified mark have been thoroughly assessed and their claims verified to applicable standards.



Environmental Product Declaration (EPD)

EPDs are a standardized way of quantifying environmental impact. They provide consumers transparency and insight into the materials used in a product and the impact it has on the environment throughout its lifecycle. The product's footprint during extraction of raw material, transportation, manufacturing, packaging, use and end of life is included in the Life Cycle Assessment within the EPD, giving end users the pertinent information needed make product decisions with sustainability in mind.



LEED Certification Contribution

Created by the U.S. Green Building Council, the LEED Green Building System™ is the internationally accepted benchmark for the design, construction and operation of high-performance green buildings.



Zero Waste to Landfill Certification

The Carbon Trust Standard for Zero Waste to Landfill is a leading independent certification recognizing an organization's achievements in diverting waste streams from landfill through increased reuse, recycling or recovery. HID Global has achieved this standard for its Rastede, Germany, site.



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To learn more about how access control can support sustainability efforts, visit

hidglobal.com/access-control

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2019-01-29-hid-pacs-sust-acc-ctrl-wp-en PLT-04230