Solidifying its ongoing commitment to sustainability, the Detroit branch office of Siemens Building Technologies Division earned the highest level of achievement for green building operations. In August 2013, the office was awarded four Green Globes® for Continual Improvement of Existing Buildings (CIEB). Green Globes, a green building rating system and certification program developed by the Green Building Initiative, recognizes commercial and government buildings that operate under the organization’s high standards for energy efficiency and sustainable operations and maintenance. The awarding of four Green Globes represents the highest level of achievement possible under the rating system.

Objective

When the Siemens office moved into new space in Plymouth, MI, the leadership team prioritized sustainability and green building design and made a commitment to energy and resource conservation. The facility earned LEED® for Commercial Interiors certification in 2010, by implementing high-efficiency lighting and HVAC systems, water conserving fixtures and a state-of-the-art Siemens APOGEE® Building Automation System that controls and monitors key building systems. As a result, the facility also earned the ENERGY STAR® label in 2010, as recognition for superior energy efficiency performance.

The entire branch office staff also recognized the value of pursuing certification for existing green building operations. “We wanted to show that we were continuing to maintain the building and our operations in a sustainable manner,” said David Everest, Siemens energy engineer and a member of the office’s Sustainability Team. “Green Globes certification provided a perfect vehicle to demonstrate that Siemens is meeting its goal for long-term sustainable practices.”

The Green Globes rating system establishes rigorous performance requirements across a wide range of categories, including energy and water conservation, waste reduction and a variety of policies and practices designed to ensure sustainable operations. In addition, Green Globes is flexible: it permits certification within a tenant space, allowing a large tenant such as Siemens to earn certification based on sustainability efforts that it controls within its own space. This was critical for Siemens, which shares its location with other businesses within the Plymouth Tech Park.
Solution
The Siemens team began the certification process by evaluating current performance metrics required to earn certification, and by conducting a comprehensive energy and facility audit of the building. The design work implemented during the initial fit-out that led to LEED certification played a key role in supporting the Green Globes effort. However, because of occupancy and space use changes, the team conducted the audit to uncover areas of increased optimization and energy savings.

The ability to monitor energy consuming systems is a key aspect to Green Globes certification. The APOGEE Building Automation System provides the most reliable monitoring solution for a wide range of building systems deployed in the building. Through APOGEE, Siemens can monitor and control all major systems, and the deployment of a comprehensive energy metering and sub-metering strategy for all energy consuming equipment makes the process more transparent and easier to manage. “With APOGEE we can see how we are doing in terms of efficiency,” Everest said. “And, if something is off, we can make operational adjustments.” The Detroit branch now calculates its ENERGY STAR score on a monthly basis.

Another key aspect of Green Globes is waste and recycling. As part of the certification process, the team conducted a waste stream audit and reviewed all existing operations and maintenance procedures designed to minimize the building’s waste and maximize recycling. Green Globes also emphasizes policies and standards designed to guide facility management and staff and ensure that sustainability is a part of the day-to-day operations of the building. “Green Globes helped all of us make sure we were following our policies to the letter,” said Laurie Murray of Siemens. Her responsibilities included gathering and confirming information for certification.

Green Globes certification also emphasized transparency. Siemens leveraged a public-facing interactive kiosk that was already in place to monitor and present energy and water consumption information for visitors and employees. Other branch initiatives, including sustainability communications and “lunch-and-learns” reinforced Siemens commitment to engage and inform the public about green buildings.

Results
When the Green Globes audit was completed in July 2013, the Detroit branch earned 779 out of a possible 919 points. This qualified them for a rating of four Green Globes, the highest level of certification.

“[We] received four Green Globes because we showed we could monitor, control and operate our facility in a highly efficient manner,” Everest said.

The Detroit branch also received recognition from the broader community. In 2013, Siemens was named one of Michigan’s 101 Best and Brightest Sustainable Companies. This award is given to companies that “are making their businesses sustainable and the lives of their employees better.”

Through Green Globes certification, the Siemens team showed it was well positioned to maintain its commitment to sustainability long into the future.

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David Everest, Ph. D., LEED AP, CEM
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Building Technologies Division