

## INDUSTRIAL PARTNER

### SAINT-GOBAIN NORTH AMERICA



#### ORGANIZATION TYPE

Building materials manufacturer

#### BARRIER

Energy efficiency not fully integrated into all manufacturing operations

#### SOLUTION

Establishment of a corporate energy management strategy that designates an energy champion at every Saint-Gobain plant

#### OUTCOME

Continuous energy improvement across the company and a growing corporate culture that values energy efficiency

#### Overview

Saint-Gobain has made a commitment to appoint and maintain an energy champion in every U.S. plant as part of its corporate energy management strategy. This approach allows the company to maintain a comprehensive energy program that achieves continuous and sustained energy improvements over time. The onsite energy champion maximizes the benefits of energy management by fully integrating energy-efficient practices into all manufacturing operations. As a result, Saint-Gobain is maintaining steady improvement in energy efficiency and developing a culture within the company that values energy efficiency.



Saint-Gobain uses EPA's ENERGY STAR® Guidelines for Energy Management to organize its plant level energy efficiency activities.



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## Policies

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At Saint-Gobain, energy management is a core business value, and accountability for energy efficiency extends across the corporate, business unit, and plant levels. In 2006, with the support of senior management, Saint-Gobain launched a focused energy management initiative that built on some initial steps the company had taken on energy efficiency in the past. As a key part of this initiative, the company designated energy champions at every plant and across every business unit to ensure a comprehensive energy program and drive continuous energy improvement throughout its business operations.

### **Plant Energy Champions**

Prior to 2006, Saint-Gobain did not have a well-defined corporate energy management strategy. Individual businesses and plants had energy management initiatives, but these were only loosely coordinated within the company. In 2006, Saint-Gobain began managing energy at the corporate level for the first time with an energy procurement initiative. After this initiative was completed, a corporate-led demand-side energy initiative was developed, and soon after Saint-Gobain adopted its present day corporate energy management strategy. To ensure the strategy was part of a comprehensive program, the company focused on placing an energy champion in every plant. The main focus of the energy champions is to provide plant-level energy efficiency leadership, coordination, oversight, and recognition.

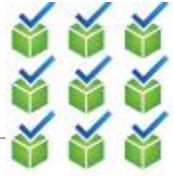
More specific responsibilities of the plant level energy champion include: organizing and facilitating a plant-wide, cross-functional team to achieve specified energy reductions and cost savings; preparing reports for site management and the business unit listing energy consumption metrics, costs, savings, and progress toward achievement of improvement goals; developing funding strategies for implementing energy efficiency improvement projects; ensuring the implementation of energy improvements and the verification of savings; benchmarking energy performance with company sites that have similar processes in order to establish best practices; and educating employees and the public on company energy management successes. The [Energy Champion Profile](#) provides a list of key deliverables, responsibilities, and performance indicators used by Saint-Gobain's energy champion.

### **Business Unit Energy Champions**

In addition to the plant level energy champions, each Saint-Gobain business agreed to maintain an energy champion for the business unit. The responsibilities of the business unit energy champions are to facilitate the energy initiatives within their business units and to coordinate energy-related communications and reporting. In addition, the energy champion serves as the key business unit contact to the corporate energy manager, who has overall responsibility for the company's energy management program. Where warranted, the business unit energy champion is a full-time position; however, in most cases, it is a part time role. In 2013, there were full-time energy champions at Saint-Gobain's two most energy intensive businesses; energy champions are a part-time position at the company's other 16 business units. The selected individuals are vital to the success of the energy initiatives within their business and to the company. They work directly with the plant level energy champion to implement energy management initiatives and ensure the corporate energy program is enforced, plans are developed, goals are achieved, and savings metrics are verified and reported.

## Tools:

- [Saint-Gobain Energy Policy](#)
- [Energy Champion Profile](#)



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## Process

Full implementation of placing an energy champion at every site occurred gradually. Plant-level goals were set consistent with the corporate goal of achieving an annual 2.5% energy reduction, though business units' conditions were also taken into account in the goal-setting process. It took about four years from the inception of the corporate energy program to place an energy champion in every plant. The process involved personal visits from the corporate energy manager to each of the business unit leaders to sell the concept and share how the adoption of the practice would benefit them. The businesses were persuaded by the success stories of those who had already taken this approach, the availability of resources, and by senior management's support for the concept. To this day, Saint-Gobain enjoys strong senior management support for its energy management program.

### Challenge

Often large organizations focus energy efficiency efforts at their biggest, most energy intensive plants. The logic tends to be that the resources required to plan, develop and implement energy efficiency plans and projects are best directed at the largest energy consuming sites. These will generally be the facilities with the greatest savings potential. The smaller, less energy-intensive plants, meanwhile, are sometimes ignored on the basis that energy costs are a relatively small portion of their operating costs. But this approach can leave numerous cost-effective energy-saving opportunities on the table. In Saint-Gobain's case, its largest plant consumes approximately 6,500 times more energy than its smallest facility. The primary challenge for making a commitment to have an energy champion in every plant is the demand for limited resources. In every case, those resources could be applied to other business needs and opportunities. Still, the company has found it worthwhile to invest the resources in making sure at least one person is responsible for developing and executing an energy management strategy at all of its plants, no matter their size.

### Approach

Saint-Gobain's approach was to start with the largest energy consuming businesses, then progress to the businesses where energy was a smaller percentage of their operating costs. Each business was asked to make a time commitment proportional to the impact of energy to their operating costs. To make sure that energy efforts fit within the structure and needs of each specific business, Saint-Gobain put resources in place that allowed the energy champions to maximize their time commitment. For example, national account vendors were established with pre-approved contract language and pricing to minimize the time needed to perform assessments and projects. In addition, an internal energy portal was developed to share best practices and resources across businesses. Other mechanisms to support the transfer of knowledge include periodic conference calls, webinars, and an annual energy conference that usually draws about 70 attendees.



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## Tools and Resources

Saint-Gobain actively uses the ENERGY STAR Energy Management Assessment Matrix. This helps ensure that all plant-level energy champions have a common energy management framework to

reference. The tool allows energy champions to compare their energy management practices to the ENERGY STAR Guidelines for Energy Management to assess the strengths and weaknesses of their programs. Saint-Gobain's energy champions also utilize relevant DOE energy assessment tools, training, and resources.

**Tools:**

- [ENERGY STAR's Energy Management Assessment Matrix](#)
- [DOE's eCenter](#)



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## Measuring Success

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The key factors that allowed Saint-Gobain to successfully place energy champions at each site were the support of senior management and persistence. Both were equally important when trying to establish the company's energy champion network. Once the champions were in place, the overall success of the energy program is demonstrated and tracked through continuous improvement metrics, both implemented and reported by the champions.

Saint-Gobain measures the energy program, energy champions', and plant level success in terms of both energy intensity reduction and monetary savings. To track plant performance, plant level metrics are ultimately compared against the corporate and business unit goals. The success of energy champions are measured through the achievements of meeting energy program goals and reduction targets, as well as engaging and promoting plant-level participation. Over the past few years, Saint-Gobain's energy program has continually demonstrated strong results, which has served as a key indicator that the program's approach works, which in turn ensures continued management support for the program.



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## Outcomes

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Saint-Gobain considers energy efficiency to be part of its overall environmental responsibility. Since the start of a comprehensive energy management strategy, Saint-Gobain has witnessed continued improvements in its overall energy per-unit metric. It has reduced energy intensity across its 118 U.S. manufacturing operations by a little over 8% since 2009, with an annual improvement of about 2.6% in 2012. These improvements contribute to the company's environmental goals and further demonstrate its commitment to promoting a culture that values and integrates energy efficiency into all aspects of its manufacturing operations.

Saint-Gobain made a public commitment to improving energy intensity by 25% over 10 years as part of the DOE Save Energy Now LEADER initiative in 2009 and continued that commitment with the Better Buildings, Better Plants Challenge.

The majority of Saint-Gobain's energy consumption is tied to its construction products division. In 2008, the dramatic slowdown in the housing market negatively impacted energy reduction results in several of the larger, more energy intensive businesses. With capital constraints stemming from the poor economy, Saint-Gobain focused on low-cost, no-cost energy efficiency projects. The company's commitment to an energy champion in every plant—not just the most energy intensive facilities—allowed it to more readily identify and implement these projects,

which resulted in continued achievements in energy reduction. Many improvements were made in some of the smaller business units that might otherwise have been ignored in a less comprehensive approach. This allowed Saint-Gobain to maintain a track record of improving its annual corporate-wide energy use intensity, despite challenges faced by some of the large energy intensive businesses.

Another positive outcome is the ongoing establishment of energy teams in every plant, led by the energy champion. These teams are composed of diverse participants in a plant who meet regularly to discuss ways to save energy. Currently, most plants have energy teams in place; Saint-Gobain's goal is to eventually have teams in every plant supporting the existing energy champions. The teams bring in more ideas, cover more breadth, accelerate improvements, and do more to change corporate culture and heighten awareness than any one person can achieve. These teams can be any size greater than two, and greatly benefit from a diversity of job functions. Furthermore, as the energy champions and energy team members matriculate to other positions within the company, they are able to provide an energy perspective that helps drive a greater understanding of energy efficiency across the organization, and foster a culture that values energy efficiency.