



Maryland Manufacturer Pursues Energy Efficiency Improvements for Operational Savings



MedImmune is the global biologics research and development arm of AstraZeneca. The company has made it a priority to reduce energy use at its Gaithersburg facility.



Why energy efficiency?

MedImmune's primary goal is to ensure the firm's long-term competitiveness through reduced operating costs. Systematic energy management is a way for MedImmune to demonstrate its corporate commitment to energy efficiency and environmental stewardship. As a current participant of the U.S. Department of Energy's (DOE's) Better Plants Program, MedImmune Gaithersburg was selected to participate in the North East Superior Energy Performance (SEP) demonstration. MedImmune Gaithersburg is pursuing ISO 50001 and ANSI/MSE 50021 certification as part of this demonstration. By partnering with DOE and the Maryland Energy Administration, the company has been able to tap into a valuable pool of professionals and tools for the development of its energy management system.

What energy efficiency opportunities have been identified?

MedImmune has identified and prioritized more than 25 energy saving opportunities at its Gaithersburg campus. The opportunities include projects in several different areas such as ventilation optimization, compressed air, plant steam, lighting, HVAC controls, lighting, hot water heating, and chilled water optimization. Since joining the Better Plants Program in 2010, MedImmune Gaithersburg has implemented several improvements such as exterior lighting retrofits, compressor capacity optimization, boiler plant optimization, and new building specifications development. These improvements have helped MedImmune Gaithersburg achieve energy reductions in excess of 10%. One of the largest projects has been the retrofit of all exterior lighting, which helped reduce exterior lighting requirements by more than 45%.

To obtain more detailed information about facility energy use, MedImmune Gaithersburg is enhancing its building automation system with additional sub-meters and the implementation of an energy monitoring system or dashboard. The company is currently performing an evaluation to optimize the monitoring and control of its 1,800-ton chilled water loops. Savings on this project is expected to exceed 3,500 MWh. In addition to energy efficiency improvement projects, MedImmune Gaithersburg has implemented a predictive maintenance strategy that is increasing equipment reliability and reducing energy consumption by predicting failures before they occur.

MedImmune Gaithersburg has also made energy efficiency a priority in its new and renovated facilities. A large R&D laboratory expansion completed in 2011 was awarded LEED Gold certification for New Construction. The new 300,000 square foot facility uses 28% less energy per square foot than the rest of the main building. LED lighting, high efficiency T5 lighting fixtures, high efficiency pumping systems, occupancy sensing controls, and advanced building automation system algorithms are among the many energy saving features.

How much energy will be saved?

MedImmune Gaithersburg has set a target of 25% reduction in energy intensity by 2020 relative to its performance in baseline year 2010. In order to achieve this long-term commitment, MedImmune Gaithersburg is using the SEP requirement of at least 5% reduction every three years to drive system evaluations, capital investment, and project implementation in a systematic way. In the first three years after setting the target, the company had already achieved a 19.2% energy intensity reduction, equivalent to approximately 170,000 MMBTU. This new, systematic approach to energy management will help MedImmune Gaithersburg achieve its target of 25% reduction in energy intensity, which is equivalent to total annual energy savings of 225,000 MMBTU.

What programs and resources has MedImmune utilized?

MedImmune Gaithersburg has been able to achieve savings in such an aggressive way due to its partnerships with DOE's Industrial Assessment Center program and the Maryland Energy Administration, as well as energy efficiency rebates available via its electric utility, Pepco.

Interested to pursue energy efficiency opportunities at your business?

Maryland Energy Administration can help you explore available assistance programs and other resources.

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