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Magneti Marelli drives down energy use by 25 percent in first year

Sustainable energy savings help create WCM environment.

Magneti Marelli production employees benefit from improved comfort at plant in Châtellerault, France. Maximize Efficiency! reduces operational costs and improves maintenance without compromising comfort.

Green investments quickly pay for themselves

Magneti Marelli, based in Corbetta, Milan, Italy, is a Fiat Group business that designs and produces leading-edge electronic components and instrument clusters for automotive systems. Recently, Magneti Marelli has redoubled its commitment to environmental sustainability, marketing automotive solutions that unite the best possible technologies with minimum ecological impact. Magneti Marelli is also committed to making its facilities energy efficient. In 2008, the company embarked on a joint efficiency project with Siemens that saw a cost reduction of more than 25 percent in the first year at its plant in Châtellerault, France.

The company chose Siemens for its "sheer professionalism" and because its Energy Savings Performance Contract was "music to our ears," according to Mathieu Bouloux, the project manager

for Magneti Marelli France. "The project didn't include any investment on our part. What's more, the resulting energy savings meant that the project paid for itself in less than 3 years." A Siemens Energy Saving Performance Contract used guaranteed energy savings to fund the modernization of building technology equipment and automation that was needed to reduce energy use and carbon emissions.

Siemens Energy Saving Performance Contracting helps customers bridge the gap between continuously rising energy costs and limited budgets. In more than 1,300 projects around the world, Siemens has helped customers save 15.9 TWh energy and reduce 9.1 million tons of CO₂ emissions each year. Maximize Efficiency! minimizes capital and operating expenditures and resource use while ensuring that buildings consistently perform at optimal levels.

Answers for infrastructure.



Mathieu Bouloux,
project manager for Magneti Marelli

"Initially, yes, it was Siemens' sheer professionalism that attracted our attention and of course their proposals were also music to our ears. That's right, we have no complaints at all now. I wouldn't hesitate to recommend it. Furthermore, I recommend them to enter into the energy performance contract that Siemens offers, that really is a powerful tool."



Minimize capital and operating expenditures

Magneti Marelli's Electronic Systems plant in France produces 5 million electronic components per day. The nine-acre plant has various buildings with 190,000 square feet. In 2008, Siemens worked with Magneti Marelli to define project targets that would help make the French plant an energy-efficient World Class Manufacturing (WCM) environment. The company had goals of reducing energy consumption by 30% in 2009 and by 50% in 2010 and 2011. It also wanted to abolish use of hydrochlorofluorocarbons (HCFC and R22).

The project, which was implemented by local experts, was split into several phases: a preliminary audit; a detailed audit; administrative, technical and legal preparation for the contract; project implementation and optimization. Facility improvement measures began with installation of a Desigo™ Insight Technical Building Management System that allows plant energy use to be monitored and controlled. The

heating systems were upgraded, including boiler insulation, a cascade system, control and automation. The central air treatment units' control and automation were also upgraded, including variable speed control. Heat recovery was added to the air compressors. Lighting systems were automated and new controls added. Other upgrades included water treatment and renewable energy.

In 2009, gas consumption was reduced by 28 percent, or 581,679 kWh, higher than the guaranteed savings of 20 percent. Electrically use was cut by 25 percent, or 2,636,491 kWh, higher than the guaranteed savings of 15 percent.

The energy efficiency project was so successful at its French plant that Magneti Marelli plans to duplicate the approach at other sites in order to benefit from its powerful combination of respect for the environment and cost control. The company also hosted an event at Châtelleraut to show other companies the benefits of Maximize Efficiency!

Highlights

- Investment of 250,000 EUR without the need to invest capital
- Achieved savings of 28% in gas and 25% of electricity in 2009
- Energy Services with monitoring and controlling to ensure the guaranteed energy savings
- Contribution to climate protection with reduction of CO₂ reduction
- Payback period of less than three years
- Assured follow up by the Siemens Advantage Operations Center using Energy Monitoring & Controlling (EMC) remote tool.

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The information in this document contains general descriptions of technical options available, which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract.

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