SHOWCASE PROJECT: ARCELORMITTAL USA LLC: CLEVELAND — RE-ATTTEST AS 50001 READY FACILITY

SOLUTION OVERVIEW
ArcelorMittal USA, an early partner in the U.S. Department of Energy (DOE) Better Plants program, employs about 20,000 people at 27 operations across the United States. The company serves many critical areas of the U.S. economy—from automotive manufacturing to construction.

As steel production is an energy-intensive process, energy is the second biggest production cost at ArcelorMittal USA (after raw materials). Consequently, the responsible use of energy is a key business tenet for the company, and one that has been embedded into its sustainability framework for a number of years. In 2012, ArcelorMittal USA became the first steel company to join the DOE Better Plants program, with 17 of its U.S. plants participating. ArcelorMittal USA was the first steel company to win the Energy Star Partner of the Year (2008) and award for Sustained Excellence (2010–2013).

“Getting this designation makes ArcelorMittal Cleveland more competitive in the marketplace. We are proud that our plant was the first ArcelorMittal facility to take on the challenge and be recognized as 50001 Ready.”

Rishabh Bahel, Energy Manager, ArcelorMittal Cleveland

SECTOR TYPE
Industrial

LOCATION
Cleveland, Ohio

PROJECT SIZE
3.8 million ton of steel/year, 923 acres 1880 employees

SOLUTIONS
ArcelorMittal’s integrated steel manufacturing plant in Cleveland, Ohio, recently re-attested to 50001 Ready, one year after initially earning 50001 Ready recognition by setting up an energy management system (EnMS) aligned with the ISO 50001 global standard. Continued adherence to the energy management requirements of 50001 Ready has helped the plant further improve its energy performance, reduce production costs, and increase competitiveness. In particular, the plant has found additional savings by focusing on the plant equipment identified as significant energy...
users through use of DOE’s 50001 Ready Navigator online software tool.

50001 Ready recognition generated positive press coverage of the plant and reinforced management’s commitment to energy efficiency. In essence, 50001 Ready recognition increases the company’s appeal to key customers who expect their suppliers to demonstrate excellence in energy management, thus enhancing ArcelorMittal’s value to its customers.

Management at the Cleveland plant views 50001 Ready as a key strategy for maintaining the plant’s high-caliber, well-trained workforce. Implementation of the 50001 Ready EnMS helps ensure the continuity of energy management practices as key staff retire or relocate. In addition, 50001 Ready serves as a training platform to help new staff learn how to continuously monitor energy performance and recommend energy improvements.


For more information, visit https://betterbuildingssolutioncenter.energy.gov
"50001 Ready creates a nurturing environment for cost-effective energy projects. It's like a nutrient that helps you sustainably grow more energy savings."
— Rishabh Bahel, Energy Manager, ArcelorMittal Cleveland

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OTHER BENEFITS

50001 Ready is a low-cost way to achieve significant energy benefits through implementing an energy management system that facilitates identification of energy savings opportunities, including simple operational improvements that cost only the time required to discover and implement them. Achieving 50001 Ready recognition from DOE has elevated the importance of energy management in ArcelorMittal’s plant leadership, facilitating capital allocations for energy projects.

In addition, the plant Energy Team is increasingly invited to assist in evaluation of a variety of projects across the plant. Most recently, the team conducted (1) an energy analysis that should cut by half the payback period for a replacement air compressor and (2) a major LED replacement project to achieve over $300,000 in energy savings annually.

The Cleveland plant has found continued participation in 50001 Ready to be a reliable mechanism for identifying improvement opportunities, effectively communicating gaps, and garnering support from decisionmakers—directly improving the plant’s energy performance and bottom line.

Key Takeaways

50001 Ready supports ArcelorMittal USA’s Cleveland plant in developing a practice of energy management across all employee levels, which helps raise awareness of energy management activities both internally and externally. This heightened awareness (technical, cultural, and behavioral) helps the plant obtain approvals for implementing energy-saving capital projects, which, in turn, will help meet corporate energy goals under the Better Plants program.

The 50001 Ready program aligned well with the plant’s existing energy goals with regards to process and safety improvements. For example, moving to energy-efficient LED saves energy, cuts costs, and improves safety and employee morale through better lighting of work areas.

Even with ArcelorMittal’s long history of commitment to energy efficiency, the Cleveland plant uses the Navigator tool to gain a broader energy perspective and pursue a more systematic approach based on ISO 50001. An engineer from another of ArcelorMittal’s largest mills, Burns Harbor (Indiana), observed portions of the plant’s re-attestation process to become familiar with the Navigator tool. The Burns Harbor plant is implementing an energy management system and plans to achieve 50001 Ready status in 2020, putting the company in a position to leverage a multi-site 50001 Ready approach and accelerate achievement of 50001 Ready status by ArcelorMittal plants nationwide.
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ArcelorMittal's integrated steel manufacturing plant in Cleveland, Ohio, Credit: ArcelorMittal

For more information, visit https://betterbuildingssolutioncenter.energy.gov
ArcelorMittal Cleveland blast furnaces overlooking the Cuyahoga River, Credit: ArcelorMittal

2019 ArcelorMittal Cleveland Team, Credit: ArcelorMittal

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ArcelorMittal’s integrated steel manufacturing plant in Cleveland, Ohio, Credit: ArcelorMittal