



FERMI NATIONAL ACCELERATOR LABORATORY (FERMILAB)

In December 2009, the U.S. Department of Energy awarded Ameresco a contract to implement five energy conservation measures (ECMs) for Fermi National Accelerator Laboratory (Fermilab) in Batavia, Illinois.



Project Details

The project is being implemented through an Energy Savings Performance Contract (ESPC). Under the ESPC, Ameresco will provide \$1.4 million in up-front capital for the project and will be paid back via the energy savings that the project generates over the term of the contract. Ameresco guarantees the annual savings will exceed the annual finance payment, and performs annual measurement and verification of the ECMs to verify the savings for the project.



The five **ECMs** include:

ECM 1: Install a new high efficiency boiler in the Central Utility Building (CUB). The new boiler can provide the entire footprint area's heating load without the necessity of utilizing one of the older, existing, less efficient boilers.

ECM 2: Replace existing T-12 fluorescent lighting with new, high efficiency T-8 lighting in Wilson Hall and the footprint area, including retrofits of the "waffle" fixtures in the cafeteria and other areas of Wilson hall.

ECM 3: Replace existing High Intensity Discharge (HID) lighting systems with T5 fluorescent fixtures in the high bay areas of the Industrial Building Complex, Wilson Hall Auditorium, Gallery Building, and Village Gymnasium.

ECM 4: Install lighting control panels to shut off lighting in irregularly occupied spaces of the Industrial Center and Industrial Buildings 1-4.

ECM 5: Transfer of electrical loads from seven (7) under-utilized transformers to other transformers and disconnection of the 7 existing transformers.

Project Benefit

This ESPC project provides the following benefits to Fermilab:

- First-year savings of \$155,866 and total savings of \$3,250,486 over the 15 year contract term.
- Improvement of aging infrastructure, aesthetics, and lighting levels to support Fermilab's mission.
- Progress toward meeting energy reduction goals set forth in the Energy Independence and Security



Act of 2007 (EISA 2007) by reducing the Fermilab's energy intensity (MMBtu/KSF) by 6%.

- Implementation of key energy/infrastructure/maintenance projects with no upfront funding.
- Firm, fixed-price contract and expedited implementation schedule.
- Reduced Operations and Maintenance demands and costs.

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