

CASE STUDY:

# MedStar Montgomery Medical Center



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Services performed at this facility include:

- Energy Assessment
- Engineering Design
- Project Management

Mission critical facilities like hospitals require a unique approach when exploring energy efficiency options. Reliability and system performance simply cannot be compromised. When MedStar Montgomery Medical Center decided to explore energy efficiency they trusted Energescos Solutions to thoroughly analyze their facility. Special consideration needs to be given to solutions that cannot afford to compromise day-to-day operations.

Energescos conducted an ASHRAE Level 2 energy audit on the medical center to determine energy efficiency measures that would produce a combined 26% reduction in utility expenses. The 24 measures identified included: high efficiency boilers and chillers, Energy Management System upgrades and controls optimization, cooling tower upgrades, and interior and exterior LED lighting upgrades. Water conservation measures included dishwashing and laundry machine upgrades and measures to decrease toilet, sink, and shower water usage. Energescos also recommended a 100kW PV solar rooftop system and a 1MW Combined Heat and Power Plant.

The energy efficiency and water conservation measures proposed were a result of the comprehensive, whole building approach Energescos uses, which included energy modeling to capture and optimize the interactions between multiple building systems. Energescos also obtained significant rebate funding for the audit itself while securing rebates and grant monies in excess of \$1M for implementation of the various energy efficiency measures.



Project Value	Rebates/ Grants Secured	Total Out of Pocket Cost	Annual Energy Bill	Annual Cost Savings	Utility Bill Savings	Simple Payback
\$2,558,594	\$1,009,656	\$1,548,938	\$2,480,249	\$643,534	26%	2.4 yrs