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West Point Energy Capstone Initiative

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Author Note: All cadets named in this paper attend the United States Military Academy and are currently participating in a year-long project as the Systems Engineering Capstone Team. The project would not be possible if not for the oversight of MAJ Sullivan, a research source provider, manager, and funding source for our team.

Abstract: West Point adopted the RCI Energy Conservation Program (RECP) prior to 2015 as part of a combined effort to reduce energy costs across the Army. The program incentivized households to conserve energy through both rebates and penalties. This report illustrates how the Systems Capstone Team advanced the efficiency of the RECP and created a similar program for commercial buildings. The team created two tools for West Point Garrison, which oversaw the RECP, and an incentive program for the cadet barracks. Tool one expedited the evaluation process of Minol, the metering company. Tool two identified trends in the energy usage of a household throughout the day. The incentive program built stronger baselines for the barracks while keeping cadets aware of their daily energy usage. The tools benefited West Point Garrison and the incentive program created a foundation for future Capstone projects.

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