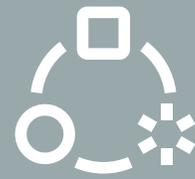


# Montgomery County, New York





Government



Bundled Energy Systems

**Energy Performance Contract**

## THE CHALLENGE

Montgomery County's complex in Fonda, NY was equipped with energy intensive, aging, and near end of life boilers, AC units and furnaces. Additionally, the aging buildings consisted of building envelope air leak issues and old historic windows, causing outside air infiltration, uneven temperatures and occupant discomfort.

## THE SOLUTION

To update the aging equipment, reduce energy usage and enhance occupant comfort, the county implemented a bundled energy systems optimization project. The project was funded through an energy performance contract, requiring no up-front capital and the ability to use guaranteed energy savings to pay for the project.

- **Building Automation System:** The County's existing energy management system was optimized to include building startup and shutdown scheduling based on temperature, actual and expected occupancy, and ventilation set points.
- **Mechanical Systems:** The antiquated mechanical boilers, window AC units and furnaces were replaced with new energy efficient equipment. A new variable refrigerant flow (VRF) system was installed to provide central cooling to the courthouse and eliminate the need for individual window units. All equipment was equipped with controls and tied back to the county's building automation system, allowing for more granular control and scheduling of the systems.
- **Building Envelope:** All entrance doors, windows, and roof/wall joints were properly sealed and caulked. Additionally, new energy efficient windows were installed in a courthouse, and window film was added to existing windows throughout other buildings.

Other measures included interior and exterior lighting upgrades, pipe insulation, adding variable frequency drives to mechanical motors, new transformers, and water conservation measures.

## THE IMPACT

This project helped the county reduce its energy usage, replace aging equipment, and enhance occupant comfort, while maintaining the integrity and historic look and feel of their buildings.

**\$270K** / total annual cost savings

**1.2M** / annual kWh savings

Annual energy savings: **\$238K**

Annual natural gas savings: **26,871 therms**

Annual maintenance savings: **\$31K**

Annual water savings: **2,021 kgal**