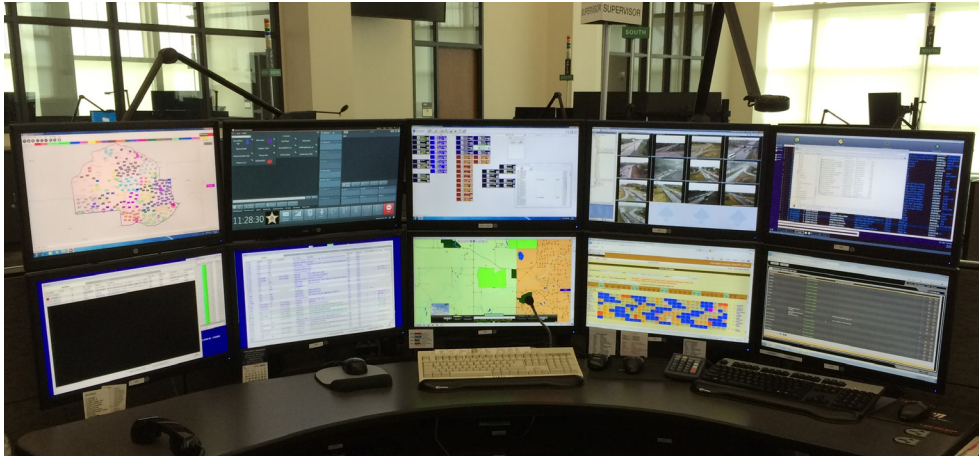


Hennepin County Sheriff's Office 911 Emergency Communications Facility

High Tech Building with Low Energy Use



"The modeling determined in the EDA program was a key component in selecting options to meet the state guidelines for energy usage and reducing our carbon footprint."

JIM SCOTT

Senior Project Manager at Hennepin County Property Services

There's no time to slow down at the Hennepin County Sheriff's Office 911 Emergency Communications Facility, also called the 911 ECF. Each year, dispatch services are provided to more than 400,000 residents in Hennepin County. Dispatchers receive over 200,000 911 calls each year and handle nearly 650,000 computer aided dispatch events annually.

But an aging facility meant it was time for a change. Built in 1948, the facility lacked the capacity to keep pace with future call volume. Maintaining the facility was no longer possible or practical.

With a phase-out plan in place, construction began on a new facility that would bring efficiency, technology and a bright new workspace for those serving the community every day.

Multiple priorities

No strangers to building with energy efficiency in mind, the operations team worked with Xcel Energy's Energy Design Assistance program to determine which measures would save them energy and money over time. They had used this program several times before and knew it would prove useful in benchmarking their energy use, and determining ways to use less energy.

As a county facility, the 911 ECF uses the state Department of Commerce's B3 benchmarking system. It's a program that marries well with the EDA program.

"The modeling determined in the EDA program was a key component in selecting options to meet the state guidelines for energy usage and reducing our carbon footprint," says Jim Scott, Senior Project Manager at Hennepin County Property Services.



Efficiency highlights

- Estimated annual energy savings: 1,341,220 kWh
- Estimated peak energy reduction: 33%
- Estimated annual energy cost savings: \$108,489

The priority was to update the technology in the new facility and plan for future call volume. They started by adding a Next Generation 911 Phone System and call logging recording system. The Next Generation system will ultimately have the technology to accept text messages, photos, and video from outside callers.

In addition to the call center, the facility contains an advanced data center and technical services unit. That's where technicians provide maintenance and repairs to approximately 8,000 interoperable radios and 700 mobile data computers in squad cars, fire trucks and ambulances.

"We had to update all of these things, make the building more efficient and come in on time and on budget because we had to be good stewards of the taxpayer dollars funding the project," says Scott.

With a lot of pre-planning and effort, they were able to accomplish all of their goals.

Efficiency measures built right in

Scott's team opted for the EDA program's Enhanced Track which provides an HVAC analysis. Based on information identified through the study, the team chose to install geothermal heat pumps which turned out to be the top energy-saving measure. The other top energy savers they implemented were:

- Energy-efficient lighting, which accounted for 15 percent of their savings
- A sophisticated Building Automation System
- Occupancy sensors
- Daylight sensors
- Lighting controls systems
- CO₂ sensors in staff areas
- Variable frequency drives (VFDs) on pumps on the heating and cooling equipment
- CO sensors in the garage where vehicles are housed

The efficiency measures were well worth the effort. Compared to building to code, the county is expected to save \$108,000 each year in energy bills.

Brighter, better, smarter space

The new facility has everything the dispatchers need to do their jobs: new technology, updated equipment, and room to grow.

"Everyone loves the new facility because it's brighter, smarter and has the latest technology that will help all of us perform our jobs better," says Scott.



For more about Xcel Energy's Energy Design Assistance program and rebate offerings, visit **xcelenergy.com/Business** or call the Business Solutions Center at **1-855-839-8862**.