

# Public School Data Center Team Put Energy Efficiency Lessons into Action

The Maryland Energy Administration (MEA) continues to develop innovative energy programs that drive economic development, energy resilience and recovery for Marylanders.

Maryland was the first in the nation to offer a targeted energy efficiency program for data centers with the Data Center Energy Efficiency grant. Data centers use 100 – 200 times more energy than a typical office building, running 24 / 7 / 365.

MEA provides Clean Energy Rebates to businesses, nonprofits, local governments, and State of Maryland government agencies and departments that install clean energy systems on facilities located in the state.

MEA also offers a Residential Clean Energy Rebate Program for homeowners who install renewable energy measures in their home like solar or geothermal.

MEA offers a wide variety of grants and tax credits that help residents close the savings gap on everything from home heating to electric vehicle charging equipment. Read about some of our featured grants here and visit us online at [www.Energy.Maryland.gov](http://www.Energy.Maryland.gov), to see our full list of programs for residents, businesses, nonprofits and local government agencies.



**Maryland**  
Energy  
Administration

Data centers provide round-the-clock sensors to monitor power, temperature, humidity, fire, and other mechanical functions for critical IT infrastructure. In 2017, US data centers required more than 90 billion kilowatt-hours of electricity = the energy generated from 34 massive coal-powered plants. Energy efficiency at data centers has never been more important.

Montgomery County Public Schools (MCPS) received a \$127,000 Maryland's Data Center Energy Efficiency Grant (DCEEG) in 2018, to install more energy efficient technology in their data center. MCPS's data center operates, monitors, and provides technical support for central servers and related equipment allowing 24-hour access to essential student and administrative databases as well as payroll, student attendance and enrollment, retirement, asset management, financial management, report cards, and online ordering.

MCPS implement numerous upgrades including server virtualization, replacement and migration of storage area networks to reduce energy consumption of servers. Air flow optimization measures such as rack enclosure cooling blanking panels; all as part of a multiphase data center improvement project were also implemented. These upgrades are expected to save MCPS over \$21,000 annually or 180,695 kilowatt hours which is enough to power roughly 600 laptop computers for 8 hours. This project was co-sponsored by MCPS' Office of Technology and Innovation (OTI) and Department of Facilities Management's (DFM) Energy Resource Team.

MCPS hopes to reinvest the grant funding to procure software that will give insight into actual server energy usage that is not presently available. This would facilitate and encourage informed decisions in prioritizing and pursuing larger ticket/cost items where greater energy savings and efficiencies could be realized. Before this project, MCPS did not consider energy efficiency or Energy Star™ ratings purchasing equipment.

Get more information on both of these programs online at [Energy.Maryland.gov](http://Energy.Maryland.gov) or email us at [DLInfo\\_MEA@maryland.gov](mailto:DLInfo_MEA@maryland.gov).

