

Washington Research Library Consortium turns the page to savings with building analytics

Long before contemporary libraries began adding baristas among their bookshelves, nine Washington, D.C. area universities banded together to share resources and conserve campus library space.

The Washington Research Library Consortium (WRLC) was established in 1987 to support those partner universities, including The George Washington University, Georgetown University and Howard University. Located in Upper Marlboro, Maryland, the WRLC headquarters is made up of three climate-controlled storage facilities. Inside those units, books, journals and other resources are stored until they are requested by faculty or students at one of the partner universities.

To keep the collections properly preserved, each unit must maintain a temperature of 60°F with 40% humidity. Because of this demand, Timothy Connolly, WRLC director of finance and administration, says energy usage is closely tracked at each facility. With the help of the BGE Smart Energy Savers Program®, the WRLC was able to accurately identify and reduce energy use after it unexpectedly doubled.

The opportunity

The first 61,000-square-foot storage facility for the WRLC was built in 1993. The second unit was added in 2010 with no surprising increases in energy use. When the third similarly sized facility opened in 2015, energy usage doubled. That spike put Connolly and his team on alert. He says BGE took notice too.

“Peter Chew, our engineering consultant, worked with BGE to solve the usage problem. The Building Energy Performance Report we received was very telling as to when we were consuming this electricity.” The report showed increased energy



“The BGE report identifies potential problems. But it also presents solutions and helps you implement them. It was very much tailored toward our equipment so we knew what we needed to target.”

— Timothy Connolly,
director of finance and administration,
Washington Research
Library Consortium

usage during peak business hours. It also gave the WRLC recommendations for improving energy efficiency through BGE's Building Tune-up Program.

The BGE solution

Once Connolly saw the WRLC energy use depicted graphically, the BGE Building Tune-up Program helped him pinpoint ways to save. He says the process of optimizing energy performance by monitoring, troubleshooting and adjusting electrical, mechanical and control systems made it easy to understand and implement energy efficiency measures. "BGE puts it on the table from beginning to end. They do a lot of it for you. I can see how any small business owner would like the complete follow-through and hand-holding with a project like this," says Connolly.

Chew agrees, noting how BGE's building analytics report helped his engineering team create a more accurate baseline energy model for controlling usage and costs. "It was the tool that helped us solve our energy use problem. Without the report, our baseline energy model would have been full of assumptions about what time of day and what days we were using certain amounts of energy. It made our energy model incredibly accurate and saved us an enormous amount of time and money," says Chew.

The benefits

The BGE Smart Energy Savers Program has helped the WRLC's climate-controlled storage facilities to save over \$100,000 per year, which allowed the WRLC to recoup their initial \$85,000 investment in about 8 months. On top of those savings, Connolly says he also received a \$15,000 rebate check as part of the BGE Building Tune-up Program once the project was completed.

"The most significant benefit is the cost savings. Using less energy is good for the environment too," says Connolly. "You can become more efficient, save money and spend it elsewhere. That helps the universities be more efficient in their business of educating young people."

Chew says the BGE Building Energy Performance Report can help any business owner become more educated about saving energy and money.

"Most organizations don't have that expertise. The report really does put it in layman's terms. For us, it was an invaluable tool," says Chew. "The BGE report gave us confidence to implement new measures."

Savings at a glance

The WRLC took advantage of financial incentives from BGE's Building Tune-up Program to reduce energy use at its Upper Marlboro, Maryland, headquarters.

BGE program:
Building Tune-up

Total project cost:
\$85,000

Incentives paid:
\$15,000

Cost to the customer:
\$70,000

Electricity savings:
1,099,943 kWh/year

Cost savings:
\$129,000/year

Payback:
8 months



The BGE Building Energy Performance Report provides a detailed analysis of how your building uses energy. It identifies which systems are performing well and which have the greatest potential for energy savings. The report provides recommendations for improvements and financial incentives available through the BGE Smart Energy Savers Program. For more information, visit [BGESmartEnergy.com](https://www.bgesmartenergy.com).

EmPOWER Maryland programs are funded by a charge on your energy bill. EmPOWER programs can help you reduce your energy consumption and save you money. To learn more about EmPOWER and how you can participate, go to [BGESmartEnergy.com](https://www.bgesmartenergy.com).