

Mackenzie Management Uncovers major savings in building tune-ups

Headquartered in Lutherville, Maryland, MacKenzie Management has been in the business of operating commercial real estate for more than 35 years. MacKenzie's 150-plus employees handle everything from tenant relations and bookkeeping to property maintenance and oversight of contractors and vendors working on-site.

"We are the property owner's eyes and ears," says Kevin Kimmel, senior property manager at MacKenzie. "We make decisions and act within the guidelines the owner gives us. That means managing day-to-day operations, as well as looking for opportunities to save money and increase the value of their buildings."

One way MacKenzie is doing just that is by working with property owners to schedule building tune-ups that help increase energy efficiency and reduce costs.

The opportunity

According to Kimmel, building comfort is number one when it comes to tenant complaints. So when a client purchased five properties in Maryland, MacKenzie stepped in to help the client understand how the newly acquired buildings were performing, which included assessing heating, ventilation and air conditioning (HVAC) system operations.

That's where BGE's Smart Energy Savers Program[®] came in. The program provides technical assistance and financial incentives to offset the cost of improving energy efficiency in commercial buildings. Of interest to MacKenzie and its client was BGE's Building Tune-up Program, which identifies relatively low-cost operational and maintenance improvements that can save energy and money. The tune-ups focus on monitoring, troubleshooting and adjusting electrical, mechanical and control systems to optimize performance.

"The Building Tune-up process looks in depth at HVAC systems to identify waste," Kimmel says. "Over time, problems can be introduced if the maintenance staff tweaks a setting when someone reports his or her office is too hot or too cold. You might find systems operating in a way they weren't designed to."



"The Building Tune-up Program was a very attractive option for our out-of-state client—for an independent third party to review the buildings for things that were not working as well as they could."

— Kevin Kimmel,
senior property manager,
MacKenzie Management

The BGE solution

The five office buildings MacKenzie's client bought in suburban Cockeysville and Upper Marlboro house tenants that range from financial services providers to manufacturers to computer software developers. MacKenzie collaborated with a BGE participating Service Provider, which performed the BGE Building Tune-up services at each property.

"We normally don't have the luxury of hiring a mechanical engineer to look into every nuance of a building," Kimmel says. "We're like the general practitioners of facility management. We know a little bit about everything. The incentives enabled us to hire a specialist and make sure the systems were running correctly."

After assessing the buildings, the engineers offered MacKenzie's client a number of low-cost, energy-saving recommendations to consider. Then MacKenzie solicited multiple bids for implementing projects to address problems such as:

- Air-handling were units running all night when tenants were not there, wasting electricity.
- Heating and cooling in certain areas of a building were running at the same time. "The systems were fighting each other," Kimmel says.
- The demand limiting feature on two chillers, allowing management to limit chiller capacity during peak energy usage, was not being used. Enabling that feature was "the number one savings opportunity in that building," Kimmel says.
- The water temperature in a condenser was set too high. Lowering the temperature helped use less energy.
- A set point for morning warm-up of rooftop units was unnecessarily high. "Somebody probably got a call saying it was cold in the morning, so the previous engineer had raised the set point," Kimmel says. "That's how buildings get like this."

- An electric water heater ran 24/7. Installing a time clock enabled scheduling for operation only when the building was occupied.

Applying simple low- and no-cost control strategies brought these systems back in line with the equipment manufacturers' specifications and limited operation to only when people are in the buildings. Once the adjustments and upgrades were completed, GFS ensured all the measures were implemented correctly and achieving the desired energy performance and operational improvements.

The benefits

These projects were designed to reduce energy usage, cut costs, increase tenant satisfaction and decrease complaints regarding comfort. According to Kimmel, BGE's Building Tune-up Program delivered on all fronts.

An additional benefit was the educational opportunity. "We don't often get to see the underbelly of an HVAC system," Kimmel says. "This was a chance for the engineering and facilities staff to really learn about these systems, so they understand the consequences of their actions. If I turn this valve, it makes these areas colder. Or if I switch that off, the air conditioning runs all night." And, with facilities staff often having responsibilities at multiple buildings, they can apply their learning to operations at other properties.

Kimmel knows that convincing an owner to spend money on a specific improvement can be difficult. But, in many cases, the improvements offered a payback on the investment in less than a year, thanks to the available incentives. He reports, "The incentives helped sell it to the finance and accounting people, who really understand return on investment and the cost of capital. We said, 'These measures make sense on their own. And, getting paid 75 cents on the dollar to implement them really makes sense.'"

Savings at a glance

MacKenzie Management helped a client access financial incentives from BGE's Smart Energy Savers Program to optimize the energy efficiency of heating and cooling and control systems in five commercial buildings.

BGE program: Building Tune-up	Total project cost: \$202,391	Incentives paid: \$150,000	Cost to the customer: \$52,391
	Electricity savings: 1,754,316 kWh/year	Cost savings: \$182,093/year	Payback: 4 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).