



Local Projects

Johnson Controls' work in Michigan includes implementing energy efficiency solutions for college and university campuses, K-12 schools, local and state government, including correctional facilities. These and countless other projects have provided us valuable experience around the expectations and requirements of conserving energy while improving the indoor environment within our customers' facilities.

Our best-in-class engineering team members have vast expertise understanding which ECMs and WCMs have the greatest potential for payback and meet your overall goals and objectives for your facilities. In fact, the project team identified in this proposal has *successfully implemented over \$500 million of energy performance contracting projects in the state over the past 20 years*. Those projects addressed critical infrastructure needs while producing savings for our customers and environmental benefits. Additionally, through this experience we have developed a large, experienced resource pool of subcontractors in the state. Together, our track record of success in Michigan allows us to provide the best overall project value, and pricing, to the State of Michigan.

Local People

Additionally, we believe it is important to note that our employees work and live in your communities, so our team members are invested in projects not only professionally, but on a personal level. As fellow Michiganders, our employees see value and comfort in knowing that they are contributing to projects in a state that has a *shared commitment* to programs that improve the economy, the environment and the health and well-being of our citizens, including the successful rehabilitation and reintegration of offenders.

Local Service

Johnson Controls' culture of innovation applies our unique insights and capabilities to continually exceed customer expectations. We begin by seeking first to understand your needs and objectives. Together, we then use a co-developed approach to incorporate the best products and solutions to address them, employing comprehensive market research and rigorous engineering practices. We are equally proud of Johnson Controls' ability to not only provide the complete suite of energy efficiency measures – from HVAC, lighting, water, renewables, and controls to fire and security – but also offer a complete inventory of maintenance services that ensure our clients' buildings realize maximum energy performance throughout the project's life. Only we can claim that our clients need not look beyond their relationship with Johnson Controls for all of their facility and energy needs.

Sustainability Initiatives

Renewable energy systems are a key part of the energy management strategy for many wastewater treatment plants. Johnson Controls brings experience installing solar PV arrays at several treatment plants. We have more than **108 MW of solar PV projects either completed or under construction**; with experience in ground-mounted, roof-mounted and parking canopy systems as well as PV systems coupled with energy storage. We have implemented 17 Power Purchases Agreements for solar PV projects in the recent past.

LEED Certified Buildings

As a charter member of the U.S. Green Building Council's board, Johnson Controls helped develop the LEED Green Building Rating System. This rating system provides standards and recognition for designing, constructing and operating sustainable, high-performance facilities. With nearly 800 staff members who are well-trained, LEED credentialed professionals, we are able to help clients navigate the LEED rating system and certification process for both new and existing buildings.

Renewable Energy Technologies

Johnson Controls has established a "center of excellence" for renewable energy technology projects, central utility plants and critical facility systems that we refer to as our Advanced Solutions Development team. This group is comprised of senior industry experts located across North America, operating in support of our branch offices. This provides our clients with a unique blend of well-staffed local offices with professionals who know the local markets, complemented with specialized expert resources to handle more complex projects.

As a world-class leader in environmental sustainability, Johnson Controls is committed to the development of clean and sustainable energy. We frequently employ solar, geothermal, biomass, wind and other renewable sources as energy supply options for our customers. We have a dedicated group of renewable technology experts stays abreast of the growing.

Distributed Energy Storage for Reliable Back Up Power

Maintaining reliable power is critical in times of crisis and when natural disasters hit to help ensure first responders and emergency services can operate effectively. Having back up power also ensures that your facilities can be used as emergency shelters and command response centers.

To address this need, Johnson Controls combined our industry leading building efficiency expertise with our energy storage expertise to provide a scalable system from 500kW up to 2MW that can provide hours of high-energy output within a proven modular design. The result: an efficient, cost-effective solution that is integrated into the energy control system at the lowest total lifecycle cost. The batteries are housed in custom 20- or 40-foot containers to ISO shipping container dimensions.

In addition to back up power, there are numerous applications for the State of Michigan where this technology would reduce costs significantly, including transmission and distribution deferral, voltage support, frequency regulation, and other ancillary services. What's even better is that the systems are designed right here in Michigan and manufactured in the United States.



Johnson Controls has strong presence in Michigan with a broad base of experience and employees:

- 687 employees dedicated to building technology & solutions projects in Michigan
- 14 offices across the state
- 132 years doing business in Michigan
- \$127 million in outstanding savings guarantees for Michigan customers
- 110,000 tons of CO₂ in reduced state greenhouse gas emissions as a result of our active projects
- \$115 million paid in payroll taxes in Michigan over the past five years
- \$12.1 million in spending with diverse suppliers in the state 1,898 jobs created as a result of construction-based efficiency projects*

*Jobs created includes direct jobs and jobs created through the expanded impact to the economy. This data is based on construction industry economic multipliers generated by the Regional Input-Output Modeling system (RIMS) from the Bureau of Economic Analysis.



A NEW OPPORTUNITY TO CREATE BETTER LEARNING ENVIRONMENTS



The Wyandotte Public Schools district in Wyandotte, Michigan, serves 4,700 students in 11 facilities spanning over 900,000 square feet. The district implemented three back-to-back performance contracts, allowing for significant building improvements and delivering \$6.9 million in cost savings to the district.

The state of Michigan just made it easier for school districts to create the best school environments possible. New legislation allows school districts the flexibility to fund critical infrastructure improvement projects without upfront capital. Through this legislation, schools across Michigan can create more effective learning environments.

Johnson Controls worked with state legislators to make the new law a reality. Under the law, retroactive to April 1, House Bill 4080 allows Michigan's K-12 school districts to enter a financing arrangement known as a Tax-Exempt Lease Purchase (TELP), which is not considered debt for school districts. The legislation allows school districts to enter into 20-year lease programs, including energy performance contracts (EPCs).

Through EPCs, the utility and operational savings realized from the improvements are guaranteed to cover the costs of the work, without the need for additional funding or capital expenditures. TELP opens the door for districts to enter into 20-year lease programs including energy performance contracts, paid back through annual energy and operational savings.

With more than 30 years of experience with energy performance contracting, we can help you make the most of the new law and we'll even guarantee the estimated savings, paying the difference if the savings don't offset your investment. We have helped customers save millions of dollars in infrastructure upgrades, implementing more than 3,000 energy performance contracts in North America alone, including many for school districts.

BENEFITS OF A JOHNSON CONTROLS ENERGY PERFORMANCE CONTRACT



- Utility and operational savings offset facility and critical infrastructure retrofit costs.
- Facility audits identify ways to update critical infrastructure of building envelope, lighting, HVAC, water and other systems.
- Performance contract specifies the scope of improvements, costs, estimated savings, grants available for project funding and the resulting cost savings.
- Performance assurance staff validates savings and provides effective communications.
- Johnson Controls pays the difference if savings don't accrue, mitigating your risk.
- You can expect lower operating costs alongside the creation of safe and more comfortable environments.

**JOHNSON CONTROLS
IS A MEMBER OF THE
GLOBAL COMMUNITY
AND YOUR LOCAL
COMMUNITY**

We live, work and play in the communities we serve. We're backed by the strength of a global, multi-industrial corporation and have helped more than one million customers worldwide increase energy efficiency and lower operating costs in buildings. We have a long history of working with educators throughout North America to create classroom environments that inspire and engage both students and teachers. Create a better, brighter school district today. Visit JohnsonControls.com/K12 or contact your local Johnson Controls K12 expert.

ENERGY IMPROVEMENT PROJECTS MADE AFFORDABLE



The state of Michigan just made it easier for local governments to improve energy efficiency. Legislation signed into law earlier this year allows local governments – which include cities, counties, townships, village councils and governing bodies – to fund energy conservation projects with Tax-Exempt Lease Purchase (TELP) plans. TELPs are not considered debt for local governments, making energy performance contracts that are paid back through annual energy and operational savings more attractive.

Johnson Controls worked closely with state legislators to make the new law a reality. Effective August 17, House Bills 4990-4994, now Public Acts 119-123 of 2016, will boost energy efficiency across the state by opening the door to energy performance contracts. These contracts represent an important funding option that can help municipalities like yours save energy and upgrade critical infrastructure without upfront capital.

Johnson Controls' experience with energy performance contracting spans more than 30 years. During that time, we have helped customers save millions of dollars in energy and water efficiency, implementing more than 3,000 energy performance contracts in North America alone, including many at the local, county and state government levels.

By providing another avenue for local governments to modernize and boost energy efficiency in their facilities, we are helping you do more with less, using tomorrow's energy savings to pay for today's upgrades. And Johnson Controls guarantees the estimated savings, paying the difference if the savings don't accrue and mitigating your risk.

These Michigan projects have enjoyed the benefits of energy performance contracting:

- City of Monroe
- Genesee County
- COBO Center
- City of Warren
- City of Port Huron

BENEFITS OF A JOHNSON CONTROLS ENERGY PERFORMANCE CONTRACT



- Utility and operational savings offset facility and infrastructure retrofit costs.
- Facility audits identify opportunities to improve the efficiency of building envelope, lighting, HVAC, water and other systems.
- Performance contract specifies the scope of improvements, associated costs, estimated energy and other savings, grants available for project funding and resulting cost savings.
- Performance assurance staff validates savings and provides effective communications.
- Johnson Controls pays the difference if savings don't accrue, mitigating your risk.
- You can expect lower energy and operating costs; reduced carbon emissions; and healthy, safe and more comfortable environments.
- Provide a vehicle to update municipal water and wastewater utility assets including renewable energy solutions without the need to raise additional capital.

JOHNSON CONTROLS IS A MEMBER OF THE GLOBAL COMMUNITY AND YOUR LOCAL COMMUNITY

We live, work and play in the communities we serve. Backed by the strength of a global, multi-industrial corporation, we have helped more than one million customers worldwide increase energy efficiency and lower operating costs in buildings.

We have a long history of working with local governments across the country to create communities that people want to call home.

Take the first step in making your community a destination of choice. Visit johnsoncontrols.com/localgov or contact your local Johnson Controls expert today.

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