

**MANN ENGINEERING**  
ENERGY CONSERVATION EXPERTS

One-source sustainable solutions™



**Professional Engineers  
Ontario**

Authorized by the Association of Professional Engineers  
of Ontario to offer professional engineering services.

# Mann Engineering

The Mann energy audit creates sustainable solutions that are economically viable.

## Providing energy conservation solutions across Canada for 25 years

Building owners, landlords and property management companies are always looking for new strategies to reduce operating costs and the most significant cost that can be controlled is the energy consumption of a building. That's why condominiums and property management companies continue to rely on Mann to decrease their energy consumption with sustainable solutions. Since 1988, Mann has conducted energy conservation programs in over a thousand commercial buildings throughout Canada. We are a unique design-build professional engineering company specialized in the energy management market.

Most Canadian buildings were constructed when the price of electricity, water and natural gas was miniscule compared to present and future energy costs. Even today, many newly constructed buildings are not using optimum energy management strategies due to the higher initial construction costs. If you think your building is already efficient, then take our challenge and Mann will provide a free energy audit.



## Our energy audit maximizes grants and incentives

We always recommend to start your savings with an energy audit. The Mann energy audit identifies the potential energy projects in your building and is coordinated with your budgeted capital expenditures ("CapEx") or reserve fund. It is important to maximize all potential grants and incentives in order to optimize the use of your CapEx or reserve fund for maximum economic benefit.

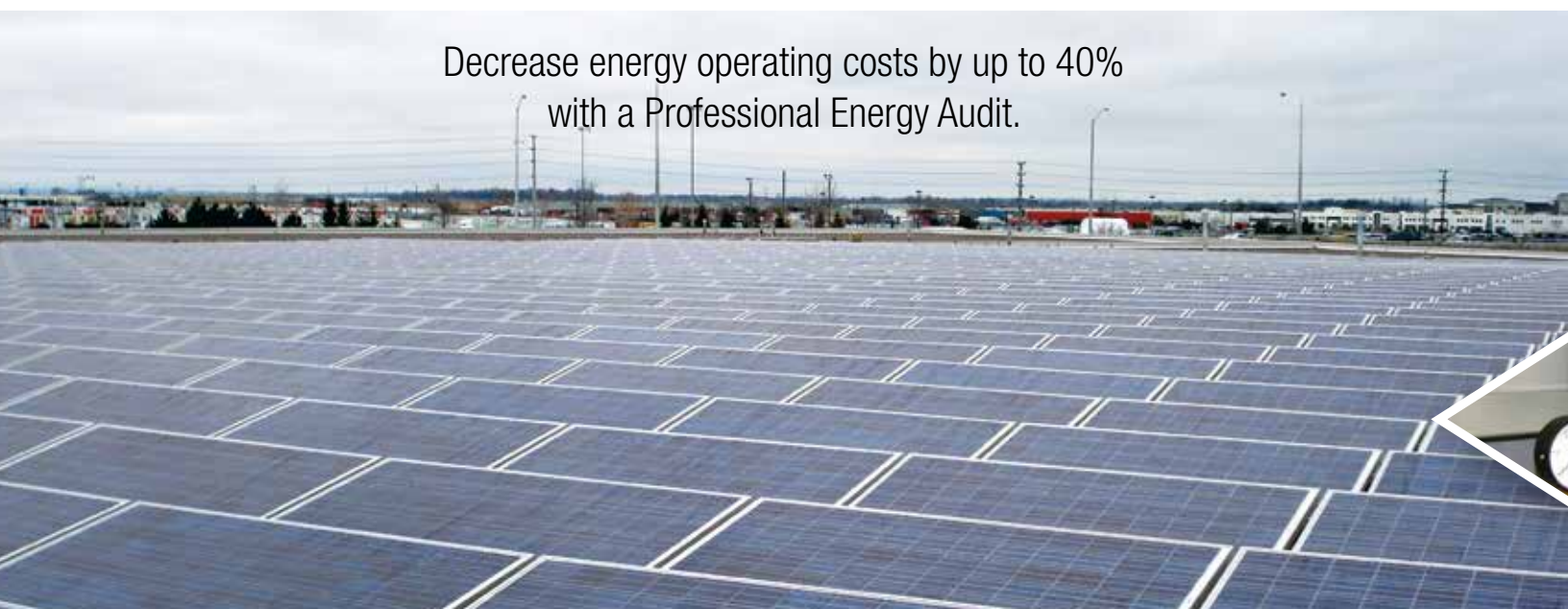
The energy audit consists of a professional engineering report listing all possible opportunities for energy conservation which often include upgrades to your boilers, chillers, controls, heat exchangers, make up air, exhaust systems, booster pumps, lighting, garage heating, CO systems, electrical systems, building envelope, water and HVAC systems. Solar photovoltaic and solar thermal systems are very popular today due to various government programs such as the feed in tariff ("FIT") program.

The energy audit includes a detailed review of historical energy consumption that will allow Mann to provide an accurate forecast of the projected energy savings and how much the opportunities or "measures" will cost. Mann will incorporate the potential incentive programs into the payback analysis for maximum economic benefit. The incentives may come from various sources and it is important to work with Mann Engineering due to our familiarity with all of the programs available to your building.

Our engineering group provides leading edge energy retrofits that follow traditional tendering practices or design/build options. The design/build option is very popular because Mann can provide a performance guarantee and an upset limit on cost.

Brampton's (Ontario) first 250KW rooftop project by Mann Engineering.

Decrease energy operating costs by up to 40%  
with a Professional Energy Audit.





## Leader in the design and installation of solar systems

Energy audits usually include options for solar systems which may be a solar hot water system using solar energy for domestic or heating or a grid connected solar photovoltaic ("PV") system that produces electricity for the grid under an Ontario FIT contract. Solar projects are a great investment and are often blended with other measures to provide a comprehensive energy conservation program with financial paybacks as low as one year.

## Delivering automation systems that balance performance, energy conservation and cost

Mann has a long tradition of providing advanced building automation systems for HVAC applications using in-house engineers and technicians. Our automation group has the task of delivering value based automation systems that blend new or existing equipment with modern automation technology. Through our web-based control a property manager or building operator can control their entire heating and HVAC systems through any computer by virtue of the installed sensors and controls.



## The most opportunistic areas for energy and water conservation...

- Replacing older boilers with mid or high efficiency boilers.
- Installing direct digital controls (DDC).
- Monitoring the DDC system.
- Installing Variable Speed Drives on constant speed motors.
- Upgrading constant flow hydronic and/or air systems with variable flow systems.
- Replacing old chillers with new units with higher COP.
- Upgrading single zone heating systems into primary/secondary systems.
- Converting pneumatic systems to electronic systems.
- Replacing old lighting systems with more efficient light sources.
- Installing water conservation measures.
- Engineered solar systems.
- DDC controls for electrically heated buildings.
- Upgrades to windows and building envelope.



## Grants and incentives pay for a significant cost of your energy project

There are many incentive programs offered to property owners and managers to encourage energy conservation. These programs can pay for a significant portion of your energy management project and significantly improve the return on your investment. Through years of specializing in energy conservation, Mann can effectively obtain any incentives available for your project.

## Professional engineers with construction capability

With Mann's design-build approach, clients benefit with professional engineers and contractors under one contract. This is our most cost effective solution that will;

- decrease your energy costs, and;
- provide a performance guarantee and;
- provide a guaranteed limit on costs.

Our clients save because there are no cost overruns and the performance is guaranteed. Mann may also provide financing or "pay from savings" options on specific projects.

## Advanced monitoring to ensure energy goals are met

Mann Engineering monitors hundreds of buildings with our in-house monitoring department to ensure energy consumption levels are optimized and that the goals of the energy management plan are achieved year over year. Our goal is to help you manage your building and reduce operating costs.

Proudly aligned with;



**MANN ENGINEERING**  
ENERGY CONSERVATION EXPERTS

For more information or a complimentary assessment contact us.

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