

# Energy Demand Management



Clients face large and growing challenges on the energy management front. Energy demands can be reduced through energy efficiency measures. Morrison Hershfield provides concepts, detailed design and tender documents, and project management services for energy savings and conservation upgrades. Our team of experts specializes in:

- **Energy audits**
- **Energy modeling**
- **Utility usage analysis (water, gas, electricity)**
- **Energy master plans**
- **Strategic planning**
- **Alternative energy sources**
- **Financial analysis**
- **Incentive advisory services**
- **Business case development and support**
- **Building envelope testing**
- **Power quality studies**
- **Heat gain and loss calculations**
- **Cogeneration systems**
- **Boiler combustion testing**
- **Electrical systems efficiency improvement**
- **Mechanical plant efficiency improvement**
- **Demand reduction**
- **Curtailment and planning**
- **Project management**
- **Permitting/regulatory compliance**
- **Project and program management**
- **Services during construction**

Services are provided for a wide range of industrial plants, institutional and commercial buildings, airports, recreational and cultural facilities as well as residential buildings.



Energy Audits and Condition Surveys at 37 Schools



Energy Optimization for Renovated Town Hall



Energy Audit of a Die Casting Plant



Utilities Master Plan Assessment & Energy Efficient Retrofits for Health Centre

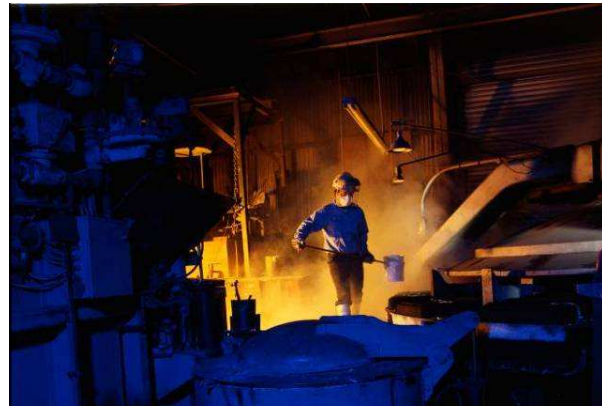


Windshield Plant Energy Audit



### **Monitoring and Targeting at Molson Breweries**

We conducted a Monitoring and Targeting pilot project at one of Molson Breweries' Ontario facilities, to provide a deeper understanding of utility use by tracking the consumption of utilities such as natural gas, electricity, compressed air and water versus production output. A report detailing consumption per unit of production provided comparisons between facilities and identified times and locations with high consumption. Our extensive knowledge of energy management techniques combined with brewery process knowledge improved utility performance. Molson reported annual savings of \$1.5 million and the project was featured in an Ontario Hydro efficiency initiative brochure.



### **Energy Audit of a Die Casting Plant**

Richmond Die Casting is a subsidiary of Meridian Technologies, manufacturers of aluminum automobile parts. The worker environment and comfort were negatively affected by the heat from melting furnaces and holding vessels at their Long Sault, ON plant. To assist the client, we carried out a detailed energy audit and designed a new air heat recovery system and a direct-fired flue gas condensing heater. The cost of make-up air heating was effectively reduced, significantly improving the employee environment.