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Process & Production



Profit from
process &
production
system
efficiencies

...with
help from
Union Gas

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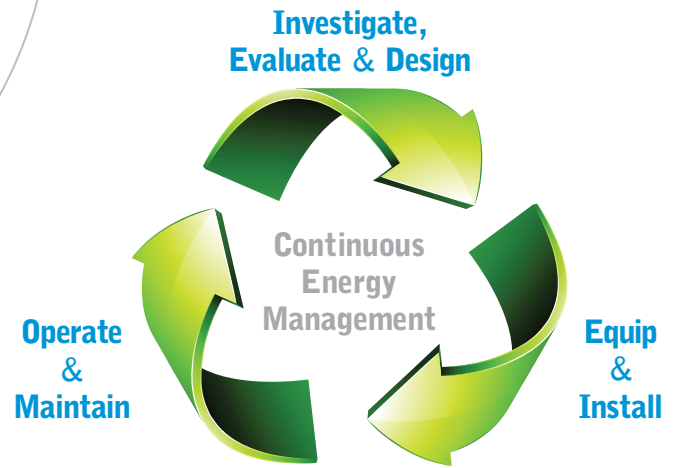
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Energy efficiency
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and increase
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Is process improvement on your list of things to do?

You've heard the mantra – the secret to success is continuous improvement. Energy efficiency is a key part of this continuous improvement equation. Whether it's in the process -- like steam production, heat recovery, waste streams, or in a myriad of other areas -- there are many cost-effective opportunities that will reduce your energy consumption just waiting to be discovered.

Energy efficiency projects can boost your production and increase your margins. A process integration study, for example, can tell you if your processes are working against each other. It can also uncover options to get them all working together in harmony so you can save money.

If product improvement is also a priority, you should know that more precise energy control can often play a role in achieving better quality – so saving more can sometimes mean delivering more.

The Union Gas EnerSmart program can help you to identify energy efficiency opportunities that deliver bottom-line results. Whether it's raising quality, boosting production, lowering costs or raising earnings, a world of production and process possibilities are waiting to be uncovered.



Union Gas will pay you to improve your processes and production

Some common energy efficiency opportunities and incentives

Investigate, Evaluate and Design

- Energy efficiency feasibility study
 - Plant feasibility study
 - Thermal imaging insulation study
 - Heating, Ventilation, Air Conditioning (HVAC) and make-up air study
 - Natural gas burner combustion and analysis
- Steam plant audit
- Steam trap survey
- Industrial process integration study

Industrial process integration study financial incentives available from Union Gas.

Industrial process study and energy efficiency feasibility study financial incentives available from Union Gas.

Steam trap survey financial incentives available from Union Gas.

Equip and Install

- High efficiency thermal process equipment
 - Furnaces
 - Ovens
 - Kilns
 - Dryers
- Boilers
 - Condensing boilers
 - Economizers
- Heat recovery
 - Pre-heat process equipment
 - Heat exchangers
 - Regenerative burners
- Natural gas equipment insulation
- Electronic natural gas burner controls
- Process control systems
- Process make-up air ventilation

Equipment installation financial incentives available from Union Gas. Equipment must save natural gas.

Operate and Maintain

- Furnace insulation and air leakage
- Reduce furnace material handling fixtures
- Minimize partial loads and reheat requirements
- Natural gas burner improvements (with before and after readings)
- Control system improvements
- Steam trap repair and replacement
- Steam valve replacement
- Process water treatment improvements
- Operator training workshops (energy related)

Industrial process study financial incentives available from Union Gas.

Steam trap repair and replacement financial incentives available from Union Gas.

Some restrictions may apply. Total incentives cannot exceed \$250,000 a year per site.

Saint-Gobain Advanced Ceramics – Dramatic reduction in unit energy use

“Follow the dollars.” That’s the advice given to other producers by Saint-Gobain’s Business Development Manager Lee A. Peekstok. He estimates that this Paris, Ontario business, supplying ceramic filters to iron and steel foundries worldwide, has saved upwards of 100,000 m³ per year in natural gas. By simply following the recommendations of a recent internal plant HVAC audit, the cost of the upgrades are relatively low. Then it was just a matter of “being smarter about what we do.”

Further energy savings will result from linking all fans to a programmable controller. The ventilation improvements also reduce process variation by narrowing fluctuations in building air pressure.

The Saint-Gobain operation in Paris has reduced its energy costs by 20 per cent per unit of production as a result of three earlier projects: use of waste heat to preheat product and air entering a ceramic kiln, use of waste heat to preheat the gas burner combustion air, and use of low thermal mass insulation.

The company also benefitted from a weekend gas usage study that helped them to set optimal kiln temperatures and fan configurations for weekend shutdown periods. These new operating parameters saved about 46,000 m³ natural gas per year -- and did it without degrading refractory life by avoiding extreme temperature cycles.

Saint-Gobain, an ENERGY STAR® partner of the year, employs an ongoing, multi-project strategy to improve plant energy and process



efficiencies. Union Gas has provided financial assistance for a wide variety of energy efficiency projects, contributing EnerSmart program funding to cover some of the study costs as well as supporting both heat recovery project and operational changes. Saint-Gobain received \$48,074 in financial incentives over several years for these initiatives.



“Tough economic conditions are no excuse for not improving energy efficiency. In fact, it’s because of tough economic conditions that you should be looking for every possible way to save energy dollars.”

The energy efficiency incentives from Union Gas help give credibility to the investment. In addition to reducing project costs, they made it easier to justify the investment.”

Lee A. Peekstok
Business Development Manager
Saint-Gobain Advanced Ceramics
Paris, Ontario



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Energy efficiency never ends

Energy efficiency is all about continuous improvement. It includes everything from designing new and replacement systems, to making good equipment choices, all the way up to successfully operating and maintaining the systems and equipment you install.

Call the energy experts at Union Gas

Union Gas is committed to helping commercial and industrial customers make energy efficiency part of business planning. The EnerSmart program offers commercial and industrial customers a full range of support every step of the way. Our team of energy experts can help you find the best solutions for your facility.

The EnerSmart program provides significant incentives for new and retrofitted energy efficient equipment and technologies that yield immediate and ongoing savings on utility costs. If you'd like to learn more about our financial support for high efficiency equipment and studies, visit our website at enersmart.com/largebusiness or contact your Union Gas Account Manager

Commercial, Institutional, Agricultural Account Managers – uniongas.com/cams

Industrial & Large Commercial Account Managers – uniongas.com/iams

Supporting your energy team

Union Gas can also assist your energy team and help you build a culture of awareness within your organization. Check the energy team support section on our website – enersmart.com/energyteam You'll find all sorts of ideas about starting, organizing, managing, sustaining and funding your energy team.

Kick start your energy team today and start delivering bottom-line results for your organization.



Energy efficiency projects pay you year after year!