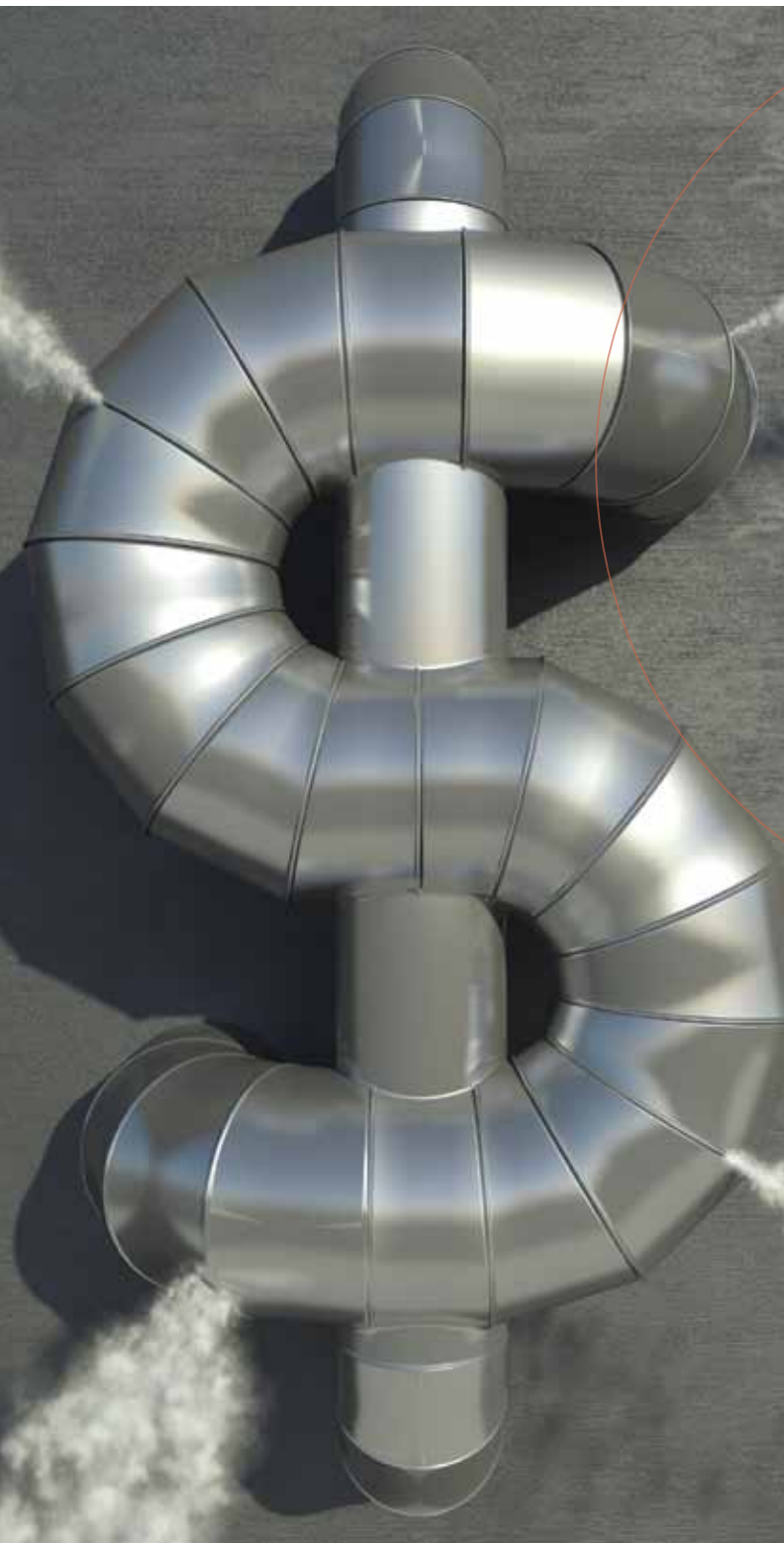


**enersmart**<sup>TM</sup>

Steam System



**Profit from  
steam system  
efficiencies**

**...with  
help from  
Union Gas**

**enersmart™**

Steam System

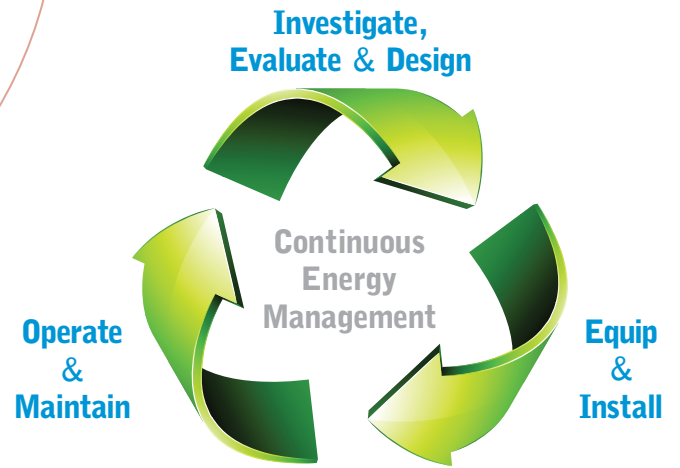
A steam system  
operating at peak  
efficiency can **lower**  
**your maintenance**  
**and life**  
**cycle costs**



lower  
costs

# enersmart™

## Steam System



## No one needs to be reminded that steam isn't free

It takes energy and dollars to generate steam so the less you waste the better. Unfortunately, no steam system is ever in perfect working order and every failed trap or poorly insulated pipe adds up to higher energy bills. What's more, a poorly functioning steam system is unsafe for both workers and your facility. In addition to compromising safety, it can also put a dent in your equipment and your production efficiency.

But take a look at the opportunities. Every steam system has projects just waiting to save money. You shouldn't hesitate to aim for peak efficiency – or very close to it. A 95% return rate on condensate, for example, is an achievable goal. Properly installed and operated, steam valves and traps should last at least six years – and many will last well beyond that. Year over year, proactive maintenance of your steam system is one of the easiest and most cost-effective strategies you can employ to lower energy and production costs.

A steam system operating at peak efficiency can lower your maintenance and life cycle costs. It just makes sense that traps, valves and other components that aren't abused will last years longer than those that are ignored or operated improperly.

Companies are making serious commitments to continuous improvement. Energy efficiency should be a key part of this continuous improvement equation. The energy experts at Union Gas can help you find cost-effective opportunities that will save you energy and money.



# Union Gas will pay you to improve your steam system

Some common energy efficiency opportunities and incentives

## Investigate, Evaluate and Design

- Energy efficiency feasibility study
  - Plant feasibility study
  - Thermal imaging insulation study
  - Natural gas burner combustion and analysis
- Steam plant audit
- Steam trap survey
- Industrial process integration study

Steam trap survey financial incentives available from Union Gas.

Energy efficiency feasibility study financial incentives available from Union Gas.

## Equip and Install

- Steam systems
  - Steam boilers
  - Steam control systems
  - Steam process equipment
- Boilers
  - Economizers
  - Condensing economizers
  - Electronic boiler controls
- Heat recovery
  - Blow-down heat recovery
  - Condensate return
- De-aerator improvements
- Back-pressure turbines
- Natural gas equipment insulation upgrades

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

## Operate and Maintain

- Boiler combustion improvements (with before and after readings)
- Minimize blow down
- Water treatment improvements
- Steam trap repair and replacement
- Steam valve repair and replacement
- Insulation upgrades
- Optimize Pressure Reducing Valves (PRV)
- Optimize steam pressure to production requirements
- Staging of multiple boilers to meet demand
- Operator training workshops (energy-related)

Industrial process study financial incentives available from Union Gas.

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

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

# Steam system efficiencies help Heinz Canada stay competitive and achieve its environmental goals

As the original pure food company, H. J. Heinz Company takes its impact on the environment very seriously. This is reflected in ambitious sustainability goals for the next ten years which are geared to drive down both energy consumption and greenhouse gas emissions by 20%.

The Heinz facility in Leamington, Ontario is a massive operation. It is the second largest Heinz plant in the world. Steam is critical to all food production processes and is also used for space heating. The plant's steam distribution system comprises of over a thousand traps. With this scale, it's vital to keep steam production and distribution at optimal performance – not just to save energy and meet sustainability targets but also to maintain cost-effective production. A smoothly functioning system is particularly vital in peak season when the plant operates 24/7 and any shutdown carries a hefty price tag.

Kim Davidson, the plant's Facilities & Engineering Manager, and Dan Rahm, Utility Services Manager, recognize how important energy management is to staying competitive and meeting environmental goals. They keep steam system efficiency right at the top of their "to do" list and they benchmark their volume-adjusted steam costs year over year to make sure they are getting the best performance possible.

Steam system audits are a key part of energy management at Heinz. Armserv Inc. provides audit services which identify leaking traps, and also costs out any steam losses so that managers have the information they need to make a business case for investing in repairs and replacements.



Union Gas works with Heinz to help meet its sustainability goals. Union Gas EnerSmart program has provided funding for the steam system audits, trap replacements, combustion testing, insulation, and control valves as well as for a project to recover waste heat and water. Together these projects are saving hundreds of thousands of m<sup>3</sup> of natural gas per year and making a major contribution to efficient and environmentally responsible production. Added benefits include more comfortable indoor environments and less wear on building structures.

But Heinz is not resting on its steam system laurels. They are already looking at ways to get more information on how and where steam is used so they can fine-tune the system and further improve operating efficiency.



“Steam system efficiency is very important to our business. We've had great support from Union Gas and this has really helped us reduce our steam costs – and lessen our environmental impact. Without their co-funding, it would have been difficult to proceed. And their input helps us to validate the project and savings to senior management.

What I'd say to other managers is why wouldn't you want to get ahead of the game and do things that save money – now and in the future?”

Kim Davidson  
Facilities & Engineering Manager  
Heinz Canada  
Leamington, Ontario



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## Steam System

## 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 their 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](http://enersmart.com/largebusiness) or contact your Union Gas Account Manager.

Commercial, Institutional, Agricultural Account Managers – [uniongas.com/cams](http://uniongas.com/cams)

Industrial & Large Commercial Account Managers – [uniongas.com/iams](http://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](http://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.

**enersmart™**  **uniongas**  
CONSERVE • SAVE • PROFIT A Spectra Energy Company

Energy efficiency projects pay you year after year!