

Solutions

Winter 2007
Energy services for commercial customers

How to cut your annual gas bill by more than \$80,000



That's exactly what one Terasen Gas customer achieved after a three year system monitoring and equipment upgrade program. All the more remarkable was that simple solutions were found to seemingly complex energy efficiency problems without any major capital investment in new heating plant.

John MacLean, of Bentall Real Estate Services LP, manages the property in question – a 26-storey, 361,000 square foot office tower located at 1075 West Georgia Street, Vancouver. The building uses natural gas to provide hydronic space heating, ventilation air heating and domestic water heating.

Average annual gas consumption for the building had been in the order of 21,000 GJ, costing more than \$200,000 per annum.

A computerized building management system controls the operation of the boilers, chillers and the distribution of both heated and cooled air and water within the

building. Two Volcano water-tube boilers rated at 10 million Btu/hour provide hot water to coils in the air handling units and reheat coils in the air distribution system, as well as domestic hot water for the building.

Through the initiative of John MacLean several system changes were made.

In 2002 the HVAC operation schedule was changed and a damper maintenance program was developed.

In 2003 isolating valves were installed to allow the two boilers to operate independently. The isolation of the boilers increased the number of firing stages to four. At the same time, the heating coil in the main supply air fan was cleaned. A significant amount of dirt had clogged the coils. During the fall of 2003 the two-stage burner on one boiler was replaced with a fully modulating Weishaupt power burner. In addition, thermal wells were installed to more accurately measure boiler water supply and return temperatures. (*"How to" continues on back page*)

CUSTOMER CHOICE is coming to a home near you

Starting in May 2007, hundreds of thousands of BC residential natural gas customers will also be able to choose whom they buy their natural gas from – Terasen Gas or a gas marketer – with gas flowing in November.

CUSTOMER CHOICE is the new name for "commodity unbundling", with which commercial customers are already familiar.

Contracts offered through gas marketers provide customers with price security and possible savings. The choice is comparable to a home

owner locking in their mortgage at a fixed rate as opposed to staying with a variable rate where prices can change.

No matter what customers choose, Terasen Gas will continue to deliver the gas, charge for delivery service and installation, and provide all billing functions.

The BC Utilities Commission is responsible for licensing the gas marketing companies and is responsible for ensuring they adhere to a code of conduct. Terasen Gas has no role in overseeing

the actions of the gas marketers.

Due to different regulatory agreements, CUSTOMER CHOICE is only available in the Lower Mainland, Fraser Valley, and the

Interior (excluding Fort Nelson and Revelstoke and the Kootenays.)

Provinces such as Ontario, Alberta and Manitoba

(*"CUSTOMER CHOICE" continues on back page*)



Burn blue. Save green.

When it comes to space heating and water heating, there's no beating the savings you can achieve with natural

gas. Because the clean blue flame of natural gas helps you save two kinds of green – your hard-earned cash and the super natural environment that we enjoy in British Columbia. If you want to find out more about saving green, please visit the Commercial section of our website.

Understanding your gas bill – a quick refresher



("How to" continued from first page)

In 2006, the second boiler was retrofitted with an identical Weishaupt burner.

The gas consumption records and heating degree-days for the period in question were compared to determine the weather-adjusted savings that occurred from the specific changes. The results indicate that the system modifications and new maintenance procedures were the foundation for the savings that occurred with the replacement of the burners. Gas consumption started dropping in November 2003 and has continued in a downward trend through to present. Consumption in GJ/degree-day has decreased by 43% from October 2003 to December 2005.

A job well done

The reduction in natural gas use at 1075 West Georgia Street was achieved with very modest changes to the heating system and demonstrates the benefits of considering the building as an integrated system. The lessons learned can be applied in many similar buildings in the Lower Mainland and throughout British Columbia. The decreased use of natural gas lowers the operating cost to the owners, increases the productive use of the facility and decreases the emissions of greenhouse gases to the benefit of all.

Maybe we can help you save time, energy and money too. Give us a call at 604-576-7135.

Need our help?

Are you paying the lowest possible scheduled rate for your natural gas? Is your business using too much gas?

If you have questions about how you can achieve maximum efficiency from natural gas, please contact Terasen Gas at commercial.energy@terasengas.com or call toll free at 1.888.477.0777.

1) Basic charge – a flat monthly fee that partially recovers various fixed costs incurred by Terasen Gas. These costs arise whether or not natural gas is used, and include services such as emergency response and meter reading.

2) Delivery – this is the charge for delivering gas

through the Terasen Gas pipeline system to your business or home. It is paid in addition to the monthly basic charge. It is calculated on a per gigajoule basis.

3) Midstream – this includes the costs to store and transport gas to the Terasen Gas system as well as the cost of purchasing incremental gas, or revenue from the sale of excess gas.

4) Cost of gas – cost of the gas used.

Where a commercial customer is purchasing their gas commodity from a competitive gas marketer, the cost of gas will show the agreed rate you pay your gas marketer and include the name and contact number of the marketer.

If you have questions about your gas bill, you will find a sample bill on our website with detailed explanations of how it is calculated and itemized. You may also call Terasen Gas customer service at 1-888-224-2710.

("CUSTOMER CHOICE" continued from first page)

have allowed gas marketers to sell to all customers for several years. In BC, large industrial companies have always had the option, but wasn't until 2004 that commercial customers were able to choose their gas supplier. Now, all gas customers will have the same freedom of choice with CUSTOMER CHOICE.

Smell gas? Act fast!

If you suspect a gas leak, leave the premises immediately, get to a nearby phone and call the Terasen Gas 24-hour emergency line at 1-800-663-9911, your local fire department, or 911.

Avoid frozen meters

A build-up of heavy snow or ice on your gas meter and piping can cause problems. For your safety and uninterrupted service we ask you to:

- keep the meter clear of accumulated snow and ice
- keep a clear path to your meter so that emergency response crews may locate it to shut off the gas valve if required

For more safety tips visit www.terasengas.com

