The Bottom Line on Managing Your Electricity Costs, A Guide for:

Food Processors

ieso
Power to Ontario. On Demand.

The Bottom Line on Managing Your Electricity Costs, A Guide For Food Processors will help guide your business decisions to save you money. This brochure will help you learn to manage electricity costs by understanding how and when your business uses electricity. In addition, read real life examples of how three Ontario companies from the food processing sector have taken action to manage their electricity costs, with positive results on their bottom line.

Molesworth Farm Supply Limited shows that understanding how you are charged for electricity is an important step in identifying cost saving opportunities.

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Weston Foods demonstrates how a professional electricity audit has the potential to yield significant savings (pictured on cover).

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Jones Packaging reveals that implementing an energy management plan can have a positive impact on a company's bottom line.

page 14

The Independent Electricity System Operator (IESO) manages the province's power system so that Ontarians receive power when and where they need it. It does this by balancing demand for electricity against available supply through the wholesale market and directing the flow of electricity across the transmission system. Visit the IESO at www.ieso.ca.

The IESO aims to provide businesses with information about the electricity market to help them manage their electricity bottom line. Visit the IESO at www.ieso.ca/business.

Reducing electricity costs can mean higher profits for food processors

Electricity acts like other commodities where the price is influenced by supply and demand. However, there is one key difference: since electricity can't be stored, hourly prices can be much more volatile than other commodities. With changing hourly prices there are more opportunities for businesses to control their electricity costs by shifting their consumption to lower-priced times of the day.

More and more businesses across Ontario are recognizing that electricity costs aren't just an overhead – they represent an opportunity to increase bottom line profits. A recent Ontario Ministry of Agriculture and Food (OMAFRA) review of 75 energy audits from Ontario's food industry demonstrated that energy use in food plants could be reduced by 12 per cent through investments with a one and two-year payback (OMAFRA IDU Bulletin 008).

Research shows that the cost of utilities – like water, sewer, electricity and natural gas – can exceed labour costs in a food plant, and plant managers are generally uncertain about how more than half of their utility load is used *(Mike Pehanich, FoodProcessing.com, February 2005)*.

By understanding how and when your company uses electricity, you too can recognize opportunities to increase profits and to demonstrate your commitment to using electricity wisely. The five steps to managing electricity costs will help you get started.

FIVE STEPS TO MANAGING ELECTRICTY COSTS

1 UNDERSTAND YOUR ELECTRICITY BILL

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As a business that uses at least 250,000 kilowatt-hours (kWh) of electricity per year you pay the market price for electricity. You are billed according to how much you use, your peak demand (how quickly you draw electricity from the system) and the time of day and week when you use electricity (if you have an interval meter). By reducing your consumption, managing your peak demand, or by using an interval meter to take advantage of price fluctuations, you can lower your electricity costs.

2 UNDERSTAND HOW YOU USE ELECTRICITY

page 6

The cost saving opportunities will become clear once you understand your company's demand profile. You will need to determine how much you are using, what the pattern of your usage is (e.g. is it higher at certain times of the day of the week or month of the year?) and whether you draw heavily from the system for a short period of time once or twice a month to perform a specific operation.

3 TAKE CHARGE OF YOUR ELECTRICITY USE

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Maintaining or making minor changes to your operations or equipment can yield significant savings. You can save money by using less electricity, taking advantage of price fluctuations, and managing your demand.

4 DEVELOP AND IMPLEMENT AN ENERGY MANAGEMENT PLAN

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An energy management plan can boost your bottom line over the short and long-term. Understanding how you incur costs for electricity, how you use it, what changes you can make to your operations to become more energy efficient – and then putting the plan into action – can significantly reduce your costs.

5 MAKE THE MOST OF INCENTIVES

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Provincial agencies and many local distribution companies (LDCs) offer financial incentives for businesses that take steps to conserve electricity or change the way they use electricity. These Conservation and Demand Management (CDM) incentives can make energy efficiency a profitable exercise.

1

UNDERSTAND YOUR ELECTRICITY BILL

The first step to reducing electricity costs is understanding how you're charged.

Businesses that use at least 250,000 kWh of electricity per year (or about $2,000 per month in electricity costs) pay the market price for electricity rather than the Regulated Price Plan (RPP) that households, small businesses and designated large volume customers pay.

Although each LDC in Ontario uses a slightly different bill format and terminology for its customers, two basic principles are common to all who pay the market price. Your electricity costs are based on:

- **How much** electricity you consume, measured in kWh (see below); and
- **Peak demand**: this is how fast you draw electricity from the system, measured in either kilowatts (kW) and kilovolt-amperes (kVA) (see page 11).

ELECTRICITY/COMMODITY: Measured in kWh, this is the cost of the electricity supplied to you. It is the part of the bill that is subject to competition. This means you can buy it through your LDC (standard supply service) or choose a retailer licensed by the Ontario Energy Board (OEB).

LINE LOSS: When electricity is delivered along distribution lines, not all of it reaches its destination. For example, when electricity moves along the wires, some of it is lost as heat – it's simply a function of the physics of how electricity moves. LDCs use a "loss factor" to adjust the electricity consumption up so that you pay the full amount of what it costs to supply your electricity. This difference is typically shown on bills as metered usage and billed usage.

STANDARD SUPPLY SERVICE (SSS) ADMINISTRATION: This $0.25 charge per month covers the administrative costs to your LDC if you don't have a retail contract.

REGULATORY (WHOLESALE MARKET SERVICES): This rate provides for the reliable management of the power system and the wholesale electricity market. It is 0.62¢/kWh and is approved by the OEB.

DEBT RETIREMENT: This charge of 0.7¢/kWh is set by the Ontario Ministry of Finance to pay down the residual stranded debt of the former Ontario Hydro.

ONTARIO POWER GENERATION (OPG) REBATE: This rebate is paid quarterly and appears on your electricity bill as a credit based on your total electricity consumption for the quarter. If your business purchases electricity from a retailer, you may or may not receive this rebate depending on the terms of the contract. This rebate will be in effect until April 30, 2009.

PROVINCIAL BENEFIT: The price of electricity in Ontario is set by a competitive market. However, to ensure that there is always an adequate supply of electricity, certain payments are made for some generation and conservation contracts that differ from the market price. The Provincial Benefit, set at the beginning of each month, settles up differences between the market price and rates paid to some generation and conservation contracts. The Provincial Benefit may be a credit or a charge, depending on whether the market price is lower or higher than the contract rates.

Molesworth Farm Supply Limited

"Feed manufacturing is a very low margin business. We knew every month when we received our electricity bill that we were paying a power factor penalty. We realized that in order to compete with multi-nationals, we needed to better manage our electricity costs," said Ron Coghlin, President of Molesworth.

TRANSFORMER CREDIT: Customers who own and maintain their own transformers that connect them to the power grid receive this credit. The rate is based on peak demand, and typically set at $0.60/kW.

POWER FACTOR: Power factor does not typically appear as a line item on your bill, however, if your facility has a lower power factor, this can result in higher distribution and transmission charges. Distribution and transmission charges are often billed on either the metered kW or 90 per cent of the metered kVA, whichever is greater. Therefore, low power factor (which is the ratio between the maximum kW and maximum kVA) results in extra charges. A number of companies, such as Molesworth Farm Supply Limited (see page 4) have found that correcting their power factor can provide one of the fastest paybacks when making investments to reduce electricity costs. Your LDC can tell you if you're paying a penalty for power factor.

TRANSMISSION*: These regulated charges are required to cover the capital and operating costs of Ontario's high-voltage electricity grid. They include two components:

Transmission Network: This covers the cost of operating and maintaining the towers, wires and other equipment used to deliver electricity from where it's generated to your LDC.

Transmission Connection: Your LDC is connected to the transmission system and the electricity has to be transformed to lower voltages before your business can use it. This charge covers the cost of doing this.

DISTRIBUTION*: This rate, regulated by the OEB, covers the cost of delivering electricity from the transmission system to your business. The charges go to your LDC to build and maintain the distribution lines and poles.

Customer Service: This fixed monthly charge covers your LDC's administrative costs such as meter reading, billing and customer service.

Talk to your LDC

If you have questions about how your bill is calculated or don't understand the cost breakdown, talk to your LDC. They can explain your demand and energy charges and confirm whether or not you're paying the market price for electricity.

*Delivery is the term used when an LDC bundles the distribution and transmission charges.

NOTE: Your electricity bill may or may not reflect all the charges outlined here – sometimes charges are bundled.

Molesworth Farm Supply Limited

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Ron Coghlin and Tom Johnson use computer automated batching equipment to manufacture livestock feeds in a Hazard Analysis and Critical Control Points (HACCP) certified production facility.

Molesworth Farm Supply Limited is a livestock feed manufacturing facility, located in the heart of dairy and hog country at the border of Perth and Huron Counties in southwestern Ontario. Thirty years ago, Molesworth was a small and simple gristmill operation. Today, Molesworth uses researched and high-tech processes to blend and process grain for commercial livestock production.

As Molesworth grew, management knew that the company was not using electricity as effectively as it could. The 20 motors used to grind, mix and transfer equipment for feed had a sub-standard power factor of 74 per cent to 77 per cent, whereas 90 per cent is considered the acceptable industry target. For years, management tried to resolve the problem on its own without success.

In 2002, Molesworth decided to tackle the problem head-on and hire a professional energy auditor.

"Feed manufacturing is a very low margin business. We knew every month when we received our electricity bill that we were paying a power factor penalty. We realized that in order to compete with multi-nationals, we needed to better manage our electricity costs," said Ron Coghlin, President of Molesworth.

The energy audit recommended installing a series of capacitors on the company's major electric motors. The installation cost $27,000 and took one month to complete. The audit projected that Molesworth would recover the cost of the installation within 36 months.

Upon completion of the project, Molesworth's power factor jumped immediately to between 93 per cent and 95 per cent. Molesworth was able to recover the costs of the capacitors within 15 months – less than half the amount of time projected by the audit.

"By taking control of our power factor, we have been able to pass on savings to farmers and put more money back into our company. Since 2002, Molesworth's volume has doubled and more efficient electricity usage has been a contributing factor to our success," said Coghlin.

POWER FACTOR

An unimproved typical power factor for a manufacturing plant is 80 per cent to 84 per cent *(OMAFRA IDU Bulletin 004)*. A power factor utilization rate of 90 per cent is considered the acceptable industry target. Some facilities target power factor utilization rates of up to 100 per cent. Your LDC can assist you in determining the power factor utilization rate that will yield the best return for your company and ensure you are not paying a penalty.

2

UNDERSTAND HOW YOU USE ELECTRICITY

Knowing how much electricity you use and when you use it can reveal cost-savings opportunities.

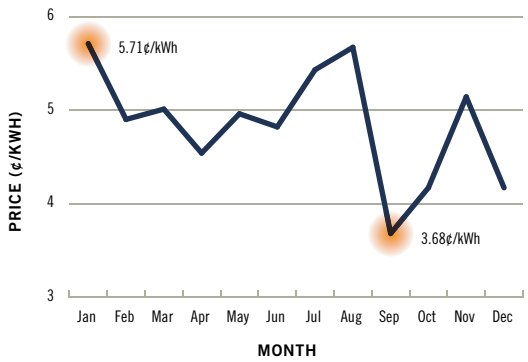
Monitoring and keeping track of your electricity use over time will allow you to compare your consumption patterns against your operational needs, and help to highlight potential savings.

Before making any investments in energy efficiency it's important to know where you stand today. Getting your demand profile from your LDC is an important first step. In addition, find out if you have an interval meter. If you do, you may be able to take advantage of changes in the hourly price of electricity. You may also want to hire an electricity consultant to conduct an audit to provide you with a detailed description of your electricity use.

Get your demand profile

Demand profiles are like a fingerprint – they detail the characteristics of your company's electricity use over time. They are an important tool to help understand your company's electricity use patterns and how to manage them more effectively.

You will see what times of day you're using electricity, how much you're using, and when your peak demand occurs each month. Understanding when your business sets a demand peak (or your power factor) can help determine what equipment or process may need to be adjusted in order to lower demand charges. You can also determine whether there are ways to avoid using electricity at the most expensive times of the day. Your local distribution company or an energy consultant can provide you with data and information on your demand profile.



Variable Monthly Prices

Approximate 2006 prices for companies that paid the market rate but did not have interval meters.

Monthly average price (weighted, 2006)

Weston Foods

"A professional electricity audit can identify significant opportunities for savings, which sometimes require no cost to implement. At Weston we are anticipating $40,000 in savings as a result of shifting operations to different times of the day to lower our demand charges," said Darren Borden, Energy Management Engineer, Weston Bakeries.

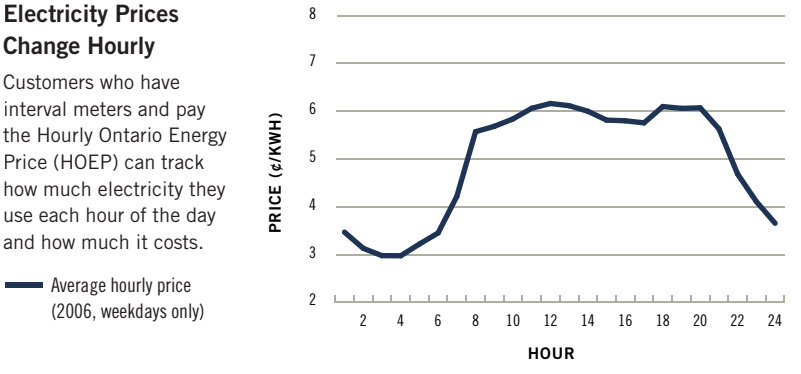
Interval meters allow you to track prices on an hourly basis

If you have an interval meter, your LDC charges you the hourly price – or the Hourly Ontario Energy Price (HOEP). As a customer that pays the wholesale, competitive price for electricity, interval meters are the only way for you to take advantage of fluctuations in price. Interval meters allow you to track how much electricity you use on an hourly basis and your electricity costs for every hour of the day.

Businesses without interval meters pay the monthly average market price, which is a weighted average of the hourly price. This is based on the consumption patterns of consumers in their area, rather than just their own.

Electricity Prices Change Hourly

Customers who have interval meters and pay the Hourly Ontario Energy Price (HOEP) can track how much electricity they use each hour of the day and how much it costs.



If your electricity use is fairly consistent 24 hours a day, or if you use more electricity during off-peak hours, it's likely you can reduce your costs by installing an interval meter. Your LDC or an energy consultant can help you determine whether it may be advantageous to purchase one.

If you don't have an interval meter or a smart meter, you will be required to have one soon. As part of an Ontario Government initiative, all electricity consumers will have one by 2010, with a significant number of installations already beginning in 2007.

Energy audits reveal potential savings

Consider hiring a professional to help you understand how you're using electricity, when you're using it, and how much each piece of equipment draws (demand) and uses (consumption). As Weston Foods discovered (see page 8), the auditor can also provide you with suggestions on process changes and/or investments in energy-efficient technology. You will also be shown the decrease in electricity use with each change, and how soon investments will pay for themselves through savings on electricity costs.

Weston Foods

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Wai-Chee Lam, Mixer Operator, observing the bread dough ball rounding belt, which takes cylindrical extruded dough pieces and rolls them along the plastic coated bars into spherical balls, and then delivers them to the transfer belt.

George Weston Limited is a Canadian public company founded in 1882 and is one of North America's largest food processing and distribution groups, which includes Loblaws Companies Limited and Weston Foods. Weston Foods focuses primarily on the baking and dairy industries within North America.

In 2006, Weston Foods decided to undertake an energy audit of five of its Ontario bakeries located in Sudbury, Kingston, Kitchener, Mississauga and Toronto – each employing about 125 people – to identify energy consumption reduction and cost saving opportunities.

Working with a professional energy auditor, Weston Foods developed a comprehensive energy management plan, which included the following measures:

More efficient lighting: Each bakery could save about $100,000 in electricity costs annually by replacing the existing 400 watt high bay metal halide fixtures and bulbs, T12 fluorescent lights and metal halide 175 watt fixtures with T8 fluorescent lights.

Power factor correction: An analysis of the historical electricity bills and a demand profile of the bakeries revealed that they were paying a penalty because they had power factors of less than 90 per cent in most cases. It is anticipated that an investment of about $15,000 per plant in capacitors will result in a $20,000 pay back within one year.

Demand management: The demand profile also showed each plant had an infrequent peak demand of over 100 kW, which was occurring less than one per cent of the time over the course of the month. This peak demand sets the total distribution and transmission charges for the month. Identification of this peak allowed for procedural changes to manage peak power use. Requiring no investment in capital and only procedural administrative changes, over $10,000 per site can be saved in avoidable demand charges, as job tasks are managed to control the peak power load on the plant.

Compressed air system controls: Compressed air is vital to the operations of a bakery. Audits found deficiencies in the system including inefficient control sequencing, inadequate storage, expensive uses of air such as panel cooling, vacuum generation and material moving, as well as inadequate maintenance leading to excessive system leaks. It is projected that improvements to the compressed air systems will result in approximately $100,000 annual savings for each bakery.

Boiler optimization: A review of the bakeries' boilers found that a savings of $50,000 annually for each bakery could be achieved through insulation, addressing excess air balance, modulated air and gas mixing control, and full condensation recovery.

The complete implementation of the energy management plan will require an investment of $350,000 - $450,000 per bakery, with an estimated cost recovery time of less than two years, followed by continued annual savings of $250,000 for each bakery.

"A professional electricity audit can identify significant opportunities for savings, which sometimes require no cost to implement. At Weston we are anticipating $40,000 in savings as a result of shifting operations to different times of the day to lower our demand charges," said Darren Borden, Energy Management Engineer, Weston Bakeries.

So far, Weston has implemented the lighting and power factor correction recommendations in all four bakeries, and is beginning to make changes to its compressed air systems and boilers.

3

TAKE CHARGE OF YOUR ELECTRICITY USE

Understanding electricity pricing trends as well as rebates and adjustments will help you make smart energy savings decisions.

Understanding how electricity prices vary can help you manage electricity costs by allowing you to take advantage of price fluctuations. Simply put if you have an interval meter, using less electricity at times when the price is high can cut costs considerably.

What influences fluctuations in electricity prices? Electricity acts like any other commodity where price depends on supply and demand with one important difference. Because electricity can't be stored, prices can be more volatile hour-to-hour than other commodities.

When demand for electricity is high, more generation is needed, which in turn can drive up the cost of power. Think about hot summer afternoons when chillers are running full tilt and industrial production is at its peak.

Supply is determined by how much generators can produce. Certain power sources are more expensive to run than others. These higher-cost generators only run when demand is high relative to supply.

What does this mean to you? For starters, if your business can't take advantage of price fluctuations or needs more certainty you may want to consider a retail contract. At a minimum, being aware of electricity pricing trends will help you decide how to structure your operations.

Consider a retail contract

As a large volume consumer, it might make sense to purchase electricity at a fixed rate through a licensed retailer. Fixed-rate contracts will not necessarily save you money, for much like gas prices or interest rates, no one can predict what future prices will be. A retail contract can, however, provide your business with certainty about the electricity portion of your bill – regardless of how prices fluctuate. Conditions and prices do vary and under some contracts, you may be required to sign away the OPG rebate. For information on retail contracts see www.ieso.ca/retailers.

Hourly price trends

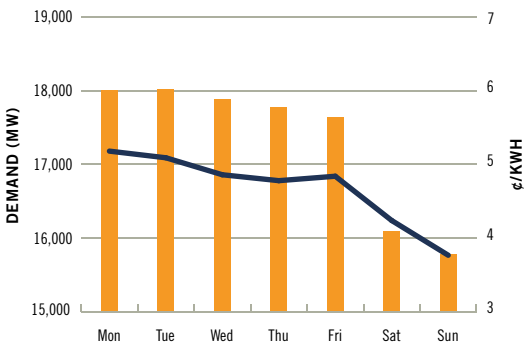
For most of the year, electricity prices tend to be higher in the afternoon, particularly between 4:00 pm to 6:00 pm. Prices are usually lowest on weekends and overnight, between 11:00 pm and 7:00 am.

Cost saving opportunity: If you have an interval meter, shifting operations to cheaper times of the day, or testing back-up generation during high-priced times, will save money. Running operations overnight can cut energy costs by more than 30 per cent.

Daily price trends

Electricity consumption across the province, tends to be highest on Mondays. As a result, prices also tend to be highest on Mondays. Consumption is lowest on the weekends, as is the price.

Cost saving opportunity: If you have an interval meter, consider whether your business can reschedule some of its operations to weekends, when prices are lower. You may also consider planning maintenance or outages early in the week.



Daily Price Trends

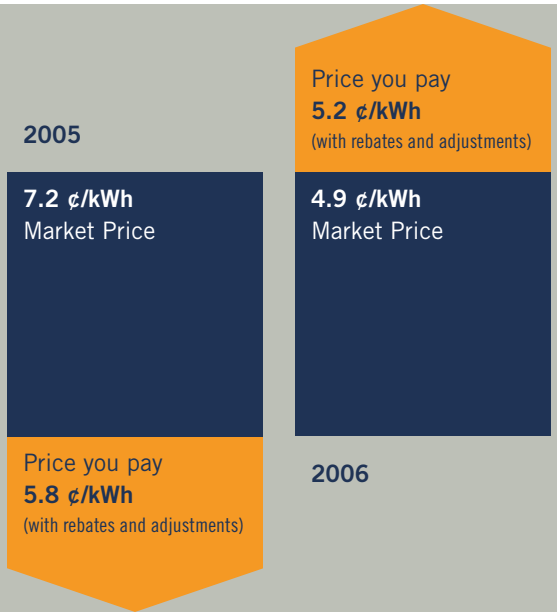
Understanding average weekday and weekend pricing trends will help you decide how to moderate consumption or structure operations to take advantage of lower average prices.

Average Ontario Demand in megawatts (MW) (2006)

Average Price in ¢/kWh (2006)

Prices with rebates and adjustments

Electricity costs incorporate the difference between market prices and rates paid to some generators and for conservation contracts. The adjustment can result in either a rebate (2005) or a charge (2006).



Rebates and adjustments

While electricity prices are determined by the open market, you do have some protection from price volatility. Adjustments to your electricity costs reflect the difference between market price and rates paid to some generators and for conservation contracts. Although hourly and monthly prices can fluctuate, adjustments to the market price, as depicted in the graphs above help to stabilize the price of electricity.

Currently there are two adjustment programs in place:

1. OPG Rebate: This rebate is paid quarterly and appears on your electricity bill as a credit based on your total electricity consumption for the quarter. If your business purchases electricity from a retailer, you may or may not receive this rebate depending on the terms of the contract. This rebate will be in effect until April 30, 2009.

2. Provincial Benefit: This adjustment relates to the amount paid for certain generation and conservation contracts versus the actual market price of electricity. If the market price for electricity is more than the amount paid, the Provincial Benefit will appear as a credit on your monthly bill. If the market price was less than the amount paid to generators, the Provincial Benefit will appear as a charge. This is an ongoing monthly adjustment.

Manage your peak demand

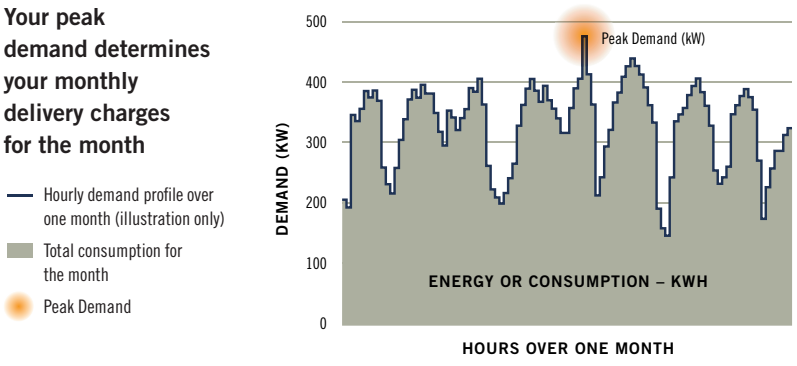
You can use the same amount of energy overall and still reduce your electricity bill. How? All you need to do is manage your business's electricity demand and draw the same amount of electricity from the system at a slower rate.

Demand charges cover the cost of the size and type of wires and equipment needed to get the electricity to your business. Drawing a lot of electricity at one time creates a higher demand. Higher demand requires additional wires and transformers that can supply electricity at the rate you draw it without overloading. So, the higher your monthly peak demand, the higher your bill.

Remember, your electricity delivery charges for the month are based on one 15-minute or 60-minute peak. If you can reduce your peak, you'll also reduce your delivery charges.

Many LDCs across Ontario have programs that reward businesses for reducing the demand on the system. Contact your LDC for more information.

Your peak demand determines your monthly delivery charges for the month



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DEVELOP AND IMPLEMENT AN ENERGY MANAGEMENT PLAN

A recent OMAFRA study of energy management activities in 75 food companies showed that food companies that provide their staff with energy management training exceed their efficiency goals.

(OMAFRA IDU Bulletin 008)

Energy use should be a key part of your business plan

As Jones Packaging found out (see page 14), understanding your business's technical systems and how your staff operates them are the keys to identifying opportunities to use electricity wisely and reducing your electricity costs. Outlining this information in a documented plan helps ensure your staff understands what changes need to be made and why. It also helps you track your progress, cost-savings, and payback on investments in energy efficiency over time.

The following eight steps provide a simple, systematic approach to understanding how your business uses electricity, what influences costs, how you can use less, and how to chart your success.

Step 1: Understand your Energy Costs

Understanding which factors influence your demand (kW or kVA) and energy (kWh) costs are important aspects in understanding what steps you need to take to reduce those costs.

Step 2: Monitor and Target

Comparing monthly data can help you determine how energy consumption at your facility varies over time. For example, comparing your energy usage against production can help determine your energy costs per unit of production as a means of assessing potential savings opportunities.

Step 3: Understand When Energy is Used

The cost of electricity is influenced by when it's consumed. Your company's demand profile shows your energy use patterns – information which is useful if you're considering changes to lower demand or, if you have an interval meter, to take advantage of times of the day or month when electricity prices are lower.

Step 4: Understand Where Energy is Used

Identify your energy hogs – the equipment that draws the most power to run. If you make changes to this equipment, you will see a bigger reduction in your electricity costs. An energy audit provides a useful, detailed breakdown of how much gets consumed in your facility and where.

Step 5: Eliminate Waste and Conserve

Energy waste can appear in many forms including excess time, volume, pressure and temperature. In order to realize energy saving opportunities, it's important to match what your business actually uses to what's really needed. Once these requirements are established, eliminating waste becomes an effective cost saving tool.

You might be surprised to discover that making changes to use less electricity won't cost you much or anything at all, and can lead to considerable savings.

Regular equipment maintenance or turning off equipment not in use won't cost much but can shave up to five per cent off your electricity bill.

Jones Packaging

"An energy audit is a valuable tool for identifying and benchmarking savings, and for kick-starting the implementation of an energy management plan with financial and environmental rewards," said Ron Harris, President of Jones Packaging.

Step 6: Maximize Efficiency

The state of your company's equipment and operating conditions can have a significant impact on energy-savings potential. Changing the way you operate or maintain existing equipment, or investing in more energy-efficient technology can yield significant savings. While some operational changes can have relatively little or no implementation costs, investments in equipment upgrades or retrofits may have a shorter payback period than you would think and can lead to permanent long-term savings.

Step 7: Optimize the Energy Supply

Once you've reduced your requirement for energy, you may consider other options to meet your growing energy needs. You may wish to investigate heat recovery, cogeneration and renewable generation options.

Generating your own electricity might also be an option for your business. Thermal generators, wind turbines, solar panels, biomass systems or small-scale hydroelectric can be used to replace what you consume from the power system during your business's demand peaks or when the price of electricity is high. It can be more economic to generate your own power during these times.

An added benefit is that you will always have back-up power in the event of power outages. You may also have the option of selling any surplus electricity back into the power grid. If you generate using renewable sources, you may be able to receive credits on your bill or even payments under the Ontario Power Authority's (OPA) Standard Offer Program. Contact your LDC or the OPA for more information on the technical requirements and approvals process.

Step 8: Monitor your Progress, Share the Results

Charting your progress over time helps you share these successes with staff and encourages them to keep looking for ways to lower electricity costs. You will have a rolling operational schedule and maintenance plan that takes advantage of opportunities to reduce electricity costs. And you will see how investments in energy efficiency pay off.

Ready to make an investment in energy-efficiency?

For a fee, an energy efficiency professional can help find new ways to use less electricity in your operations and save money month after month. You will also get advice on planning upgrades and retrofits to get the most out of your investment. Contact Natural Resources Canada's (NRCan) Office of Energy Efficiency (OEE) for information on financial incentives to help plan and implement your energy upgrades: www.oee.nrcan.gc.ca/buildings.

Jones Packaging

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Keith Wernham, maintenance person at Jones Packaging changes a fluorescent light bulb in the manufacturing facility. The fluorescent based lighting installed replaces the original halide lighting, decreasing Jones's consumption of electricity by approximately 600,000 kWh per year.

Jones Packaging was founded in 1882 to serve the packaging needs of the Canadian pharmacy market. Today Jones Packaging, headquartered in London, Ontario, is a fourth generation family company servicing a multitude of national and international firms with a broad spectrum of products, including food packaging. Jones operates out of two manufacturing locations and one distribution centre in Canada with 423 employees.

Since 2004, Jones has developed and maintained a certified Environmental Management System which sets annual objectives and targets for the company. In 2006, one of the objectives was to reduce energy consumption by five per cent from lighting changes in its manufacturing and warehousing facilities in London and Guelph.

A detailed lighting audit revealed that 30 per cent of energy usage in the two facilities was from lighting, and that the company could reduce lighting energy consumption by 50 per cent, representing a reduction in overall energy consumption for the company of almost 16 per cent.

Jones decided to move ahead with its London facility. Over a two week period, Jones replaced High Intensity Discharge (HID) Metal Halide lighting with fluorescent platform lighting, which is 50 per cent more energy efficient. Jones also installed motion sensors in its warehouse so that lights are turned off when there are no employees or movement in the area.

As a result, Jones was able to reduce the plant's energy consumption from lighting by almost 12 per cent (surpassing its original goal of five per cent), for a total reduction in energy consumption of almost 17 per cent. Tracking of this savings will be continued over the 2007 year.

Jones's employees have been extremely pleased with the positive impact of the new lighting on their working environment. The bulbs chosen for the facility create a brighter, day-like atmosphere, thereby reducing eye strain.

The success of the London facility lighting project has impressed upon Jones the importance of energy management for cutting costs and caring for the environment. In 2007, Jones is planning a similar lighting replacement project for its Guelph facility, a compressed air management program, as well as energy consumption awareness training program for its employees.

"An energy audit is a valuable tool for identifying and benchmarking savings, and for kick-starting the implementation of an energy management plan with financial and environmental rewards," Ron Harris, President of Jones Packaging.

5

MAKE THE MOST OF INCENTIVES

Taking advantage of incentive programs can directly impact your bottom line.

Emergency Load Reduction Program

The IESO has developed a program to keep the power system functioning reliably during times when it is under heavy strain. The Emergency Load Reduction Program (ELRP) provides financial incentives to businesses that reduce electricity or use back-up generation when the electricity supply-demand situation is tight. Not only will you avoid using electricity when prices are high, but you will get paid to do it. Participating companies also have the opportunity to tell customers that they are doing their part to help keep the power flowing in Ontario. See www.ieso.ca/ELRP for more information.

Conservation and Demand Management Programs

Programs by local distribution companies

LDCs across Ontario are launching Conservation and Demand Management (CDM) programs designed to help businesses. Talk to your LDC about the complete range of strategic conservation and load management incentives. Contact information for all LDCs in Ontario can be found at www.ieso.ca/findutility.

Provincial programs by the Ontario Power Authority

The OPA's Demand Response Program provides businesses with incentives to reduce their demand on the electricity system. Businesses that stop drawing electricity or reduce their electricity demand at peak times, or who invest in their own electricity generation facilities can receive financial incentives. Visit: www.conservationbureau.on.ca or www.powerauthority.on.ca for more information on this and other conservation and energy-efficiency programs administered by the OPA.

Natural Resources Canada

Natural Resources Canada's Office of Energy Efficiency (OEE) offers a wide range of programs and services to improve energy conservation and energy efficiency in every sector. The OEE offers financial incentives and other resources, including workshops, data interpretation and numerous publications to help Canadians save energy. For more information visit: www.oee.nrcan.gc.ca/buildings, or for a list of publications, visit: www.oee.nrcan.gc.ca/.

FOR MORE INFORMATION ON:

Your local distribution company
www.ieso.ca/findutility

Electricity price information for businesses
www.ieso.ca/business

Retail electricity contracts
www.ieso.ca/retailers

Joining the IESO's Emergency Load Reduction Program
www.ieso.ca/ELRP

The Ontario Power Authority
www.powerauthority.on.ca

Conservation programs available province wide
www.conservationbureau.on.ca

Federal government Office of Energy Efficiency
www.oee.nrcan.gc.ca

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