

Manitoba Hydro Undertaking #135

Manitoba Hydro to provide spreadsheet analysis performed comparing Xcel Energy's Programs to MH's Programs.

Please see attached internal working document which provides a comparison summary of Manitoba Hydro's Power Smart Programs and Xcel Energy's Demand Side Management programs.

**MANITOBA HYDRO VS XCEL ENERGY
ELECTRIC CONSERVATION PROGRAM COMPARISON**

COMMERCIAL SECTOR

PROGRAM AREA	MH POSITION	COMMENTS
Energy Management	Leader	Xcel does not offer a comparable program.
Small Business	Leader	MH offer identifies opportunities beyond just lighting, and also includes some free direct installation of energy and water saving devices.
Building Envelope (retrofits)	Leader	Xcel does not offer a comparable program.
Retrocommissioning and Recommissioning	Leader	MH offer is superior due to larger incentive, technical support, customer commitment, and mandatory persistence documentation and training.
Commercial Appliances	Leader	Xcel does not offer a comparable program.
Custom Opportunities	Comparable	Xcel's incentive is higher, however MH offers a feasibility incentive which Xcel does not.
HVAC	Possible opportunity.	Xcel offers incentives for a few technologies that MH does not.
Commercial Lighting	Comparable	Advocated technologies and incentives are very similar.
Commercial Refrigeration	Leader	MH offer is more aggressive and far more comprehensive. MH advocates many technologies and offers incentive for both retrofits and new construction opportunities. Xcel only addresses tune-ups of current systems, without any upgrades, and fails to address new construction.

PROGRAM AREA	MH POSITION	COMMENTS
Geothermal Heat Pumps	Leader	MH offer is superior due to incentives being based on the building heat load, while Xcel Energy incentives are based on only cooling loads. Heating load is far greater than cooling load, therefore MH incentives are much greater. MH also provides feasibility study assistance, while Xcel does not.
Information Technology (I.T.)	Comparable	Xcel's Data Center Efficiency Program is very similar to Manitoba Hydro's Commercial Custom Measures Program. Xcel is simply marketing/promoting a custom-program to the I.T. sector.
New Construction	Leader	Xcel Energy's project minimum of 20,000 square feet excludes many projects, while Manitoba Hydro does not have minimum or maximum building size requirements. Manitoba Hydro offers in-kind technical support, while Xcel Energy does not. Manitoba Hydro's incentive is larger. Manitoba Hydro offers a path for both design-build (small), and modeled buildings, while Xcel only addresses modeled buildings.

PROGRAM AREA: Energy Management

MANITOBA HYDRO PROGRAM(S)

- The Power Smart Energy Manager Program (PSEM) for Schools provides information, training, and support for Manitoba school divisions to hire dedicated Energy Managers.
- Energy Management training has been offered and subsidized.
- Manitoba Hydro contributes:
 - An Energy Management Program implementation toolkit. This valuable tool details the actions required in the implementation of a PSEM Program in a school division.
 - Technical training and ongoing support for the Energy Manager.
 - Support in establishing and maintaining an energy accounting system to track resource consumption and costs.
 - Informational material for classroom use.
 - Salary financing at 6.5% over five years, with the option of no payments in the first year.

XCEL ENERGY PROGRAM(S)

- No comparable program is offered.

COMMENTS

- Manitoba Hydro's program is more aggressive in this area as Xcel Energy does not have a comparable offering.

PROGRAM AREA: Small Business

MANITOBA HYDRO PROGRAM(S)

- The Power Smart Shops Program is aimed at independently owned and operated restaurants, convenience stores, retail shops, or small offices. Power Smart Shops can help save by reducing energy and water consumption.
- Customers are visited by Manitoba Hydro employee who does an assessment of all energy savings opportunities, and prepares a report summarizing the findings, and directing them to incentive programs.
- Direct installation of a number of free energy and water saving devices, and incentives for remaining energy savings opportunities. Free items include:
 - Low-flow (1.0 GPM) bathroom faucet aerators
 - Low-flow (1.5GPM) kitchen faucet aerators
 - 14W CFLs
 - 23W CFLs
 - Hot water tank pipe insulation
 - Low-flow pre-rinse kitchen spray valves

XCEL ENERGY PROGRAM(S)

- Lighting Efficiency One-Stop Efficiency Shop Program offers lighting retrofit rebates and special services for small to medium-sized business customers.
- Free lighting audit with cost-saving recommendations and associated incentives.
- Financing.

COMMENTS

- Although the programs differ in their deliverables, it is deemed that Manitoba Hydro's program is more aggressive.
- Both programs offer assessments of opportunities, but Manitoba Hydro goes beyond simply indentifying just lighting opportunities.
- Both programs offer incentives.
- Manitoba Hydro offers direct installation of a number of free energy and water saving devices.
- Xcel offers financing while Manitoba Hydro does not.

PROGRAM AREA: Building Envelope (retrofits)

MANITOBA HYDRO PROGRAM(S)

- Commercial Building Envelope Program includes:
 - Insulation - rebates to upgrade roof and/or wall insulation to existing facility.
 - Windows - rebates to upgrade windows in existing facilities.
 - For renovation projects, Manitoba Hydro will provide incentives for up to 75 per cent of the incremental cost of insulation upgrades and up to 80 per cent of the incremental cost of installing energy efficient windows.

XCEL ENERGY PROGRAM(S)

- No comparable program is offered.

COMMENTS

- Manitoba Hydro's program is more aggressive in this area as Xcel Energy does not have a comparable offering for insulation and window retrofits.

PROGRAM AREA: Retrocommissioning and Recommissioning

MANITOBA HYDRO PROGRAM(S)

- Commercial Building Optimization Program.
- \$2,500 for the scoping study.
- Up to \$0.14/ft² of conditioned space for the investigation study.
- Up to \$0.05/ft² for measures that have paybacks greater than two years (maximum incentive of \$10 000).
- Up to \$5,000 for persistence.
- Guides customers through the entire lifespan of the retrocommissioning process.
- Commits customers to implementing all measures found that have a two year payback or less.
- Savings persist due to the implementation of a comprehensive persistence plan.

XCEL ENERGY PROGRAM(S)

- Recommissioning Program.
- Xcel Energy will pay up to 75% of the cost of the study, not to exceed \$25,000.
- Xcel Energy pays for custom incentives for implementation of recommended actions up to \$400/kW saved.

COMMENTS

- Manitoba Hydro's offer is more aggressive.
- Manitoba Hydro's incentive is larger.
- Manitoba Hydro offers in-kind technical support through entire project, while Xcel Energy does not.
- Manitoba Hydro customer commits to implementing all measures found that have a two year payback or less.
- Manitoba Hydro program requires, and provides financial support for the creation of, persistence documents and building operator training to ensure savings carry forward into the future.

PROGRAM AREA: Commercial Appliances

MANITOBA HYDRO PROGRAM(S)

- Commercial Clothes Washers Program
 - An incentive of \$180 per ENERGY STAR® qualified front-loading commercial clothes washer is available.
 - Conserve energy and water.
- Commercial Kitchen Appliances Program (includes steam cookers, and deep fryers). Upgrade to ENERGY STAR qualified commercial steamers and fryers and receive rebates of
 - \$1,250 per fryer.
 - \$2,500 per steamer.
 - Water savings – connectionless steamers eliminates the need for drain pipe and water supply.

XCEL ENERGY PROGRAM(S)

- No comparable program is offered.

COMMENTS

- Manitoba Hydro's program is more aggressive in this area as Xcel Energy does not have a comparable offering.

PROGRAM AREA: Custom Opportunities

MANITOBA HYDRO PROGRAM(S)

- Commercial Custom Measures Program. Any project that involves energy savings but is not already included in other Programs.
- Eligible technologies/measures include, but are not limited to:
 - 1) developing waste energy recovery systems for refrigeration, exhaust air, and drain-water;
 - 2) upgrading existing inefficient natural gas domestic hot water and space heating equipment; replacing inlet vanes and discharge damper volume controls on existing fan systems with variable speed drive systems;
 - 3) replacing inefficient fluid pumping and refrigeration compressor systems with variable speed drive systems;
 - 4) integrating system control strategies using Direct Digital Control or conventional control systems;
 - 5) replacing mechanical cooling systems with groundwater cooling systems;
 - 6) installing solar air and water heating systems.
- The program provides financial incentives to identify, investigate and implement system efficiency improvements in your facility.
- Incentives for feasibility study:
 - 50 per cent of the first \$5,000
 - 25 per cent of the remaining portion up to a maximum of \$10,000
- Incentives for energy savings:
 - \$0.20/kWh saved – annual electric

XCEL ENERGY PROGRAM(S)

- Custom Efficiency Program. Any project that involves energy savings but is not included in other conservation programs. This can involve: Replacing old, less efficient with new, higher efficiency equipment, or purchasing new equipment that is more efficient than the standard, or improving efficiency of processes.
- Rebates up to \$400/kW saved.

COMMENTS

- The two programs are very comparable offerings.
- Xcel's incentive is higher; however Manitoba Hydro offers a feasibility incentive which Xcel does not.

PROGRAM AREA: HVAC

MANITOBA HYDRO PROGRAM(S)

- Commercial HVAC Program (electric) includes:
 - Chillers.
 - CO2 Sensors.
 - Heat recovery and other options available through Manitoba Hydro Custom Program.

XCEL ENERGY PROGRAM(S)

- Cooling Efficiency Program includes:
 - Chillers.
 - DX Units (split systems, condensing units, rooftop units).
 - Packaged Terminal Air Conditioners (PTAC).
 - Economizers.
 - Hotel room controllers.
 - Heat recovery and other options available through Xcel Energy Custom Program.

COMMENTS

- Chillers comprise the largest electric energy efficiency opportunity.
- For chillers less than 150 tons, the Xcel Energy incentive is higher than Manitoba Hydro.
- For chiller greater than 150 tons, the Manitoba Hydro incentive is higher. The larger you go above 300 tons, the bigger the gap between Manitoba Hydro's incentive and Xcel's.
- Xcel offers incentives for a few technologies that Manitoba Hydro does not.

PROGRAM AREA: Commercial Lighting

MANITOBA HYDRO PROGRAM(S)

- Commercial Lighting Program, includes:
 - T8 Fluorescent Lighting Systems.
 - T5 Fluorescent Lighting Systems.
 - Compact Fluorescent (CF) Lighting Systems.
 - Light Emitting Diode (LED) Exit Signs.
 - Metal Halide (MH) Lighting Systems.
 - High Pressure Sodium (HPS) Lighting Systems.
 - Occupancy Sensors.
 - Light Emitting Diode (LED) Backlit Signage.
 - Day Lighting Systems.
 - Custom rebates available for installations that do not fit the prescriptive parameters.

XCEL ENERGY PROGRAM(S)

- Lighting Efficiency Program, includes:
 - Fluorescent T8 lamps.
 - Low-Wattage T8 lamps.
 - Fluorescent T5 lamps.
 - CFL.
 - Metal halide.
 - High pressure sodium fixtures.
 - Ceramic metal halide fixtures.
 - Pulse start metal halide fixtures.
 - Occupancy sensors and photocells.
 - LED or LEC exit signs.
 - LED traffic signs.
 - Parking garage fixtures.
 - Custom rebates available for installations that do not fit the prescriptive parameters.

COMMENTS

- The two programs are very comparable offerings.
- Advocated technologies and incentives are very similar.

PROGRAM AREA: Refrigeration

MANITOBA HYDRO PROGRAM(S)

- Commercial Refrigeration Program, includes:
 - Converting open cases to doored cases.
 - Heat free doors.
 - Anti-sweat heater controls.
 - Night covers.
 - Mechanical room compressor upgrades.
 - ECM evaporator fan motors.
 - Insulation to bare suction lines.
 - Strip curtains.
 - Automatic door closers for walk-in boxes.
 - T8 lighting for walk-in boxes.
 - LED lighting for display cases.
 - Door gasket replacement for walk-in boxes and display cases.

XCEL ENERGY PROGRAM(S)

- Refrigeration Recommissioning Program.
- Designed to assist customers in tuning up their existing commercial refrigeration system to make sure it is operating correctly and to rectify deficiencies immediately during their investigation.
- Rebates for system tune-ups; available to grocery stores, large warehouse grocery outlets and convenience stores.

COMMENTS

- Manitoba Hydro's offer is more aggressive and far more comprehensive.
- Manitoba Hydro's advocates many technologies and offers incentive for both retrofits and new construction opportunities.
- Xcel Energy only addresses tune-ups of current systems, without any upgrades, and fails to address new construction.

PROGRAM AREA: Geothermal Heat Pumps

MANITOBA HYDRO PROGRAM(S)

- The Commercial Earth Power Program Manitoba Hydro offers financial incentives towards the installation of commercial geothermal heat pump systems.
- Eligible systems must reduce electric consumption in the building or be considered an electric base-case for new construction projects.
- Manitoba Hydro offers the lesser of \$1.25 per square foot, \$60 per MBH of system capacity or \$60 per MBH of eligible heat load. The eligible heat load tends to be the predominant incentive factor.
- For qualifying feasibility studies, Manitoba Hydro provides assistance up to 50 per cent of the first \$5,000 and up to 25 per cent of the remaining cost of the study (to a maximum grant of \$10,000 per study).

XCEL ENERGY PROGRAM(S)

- Xcel Energy offers rebates towards the installation of ground source heat pumps to improve the efficiency of cooling loads in commercial buildings.
- Customers are eligible for rebates of \$75 per ton plus a \$5 bonus for efficiency improvements above the baseline.

COMMENTS

- Manitoba Hydro's offer is more aggressive.
- Manitoba Hydro's Commercial Earth Power incentives are based on the building heat load, while Xcel Energy incentives are based on cooling loads. Considering the difference in loads, the level of incentive offered between the programs is not comparable.
- Manitoba Hydro provides feasibility studies assistance, while Xcel Energy does not.

PROGRAM AREA: Information Technology (I.T.)

MANITOBA HYDRO PROGRAM(S)

- Commercial Network Energy Management Program (hibernating software).
- Reduce unnecessary personal computers (PCs) energy use. The Network Energy Management Program offers commercial customers a rebate to install network management software. The software programs shut down (PCs) when they are inactive and allows network administrators to perform regular maintenance tasks, such as IT upgrades and installations.
- A rebate is available to cover 100 per cent of the cost of the eligible software program and installation costs up to a maximum of \$15 per software license.

XCEL ENERGY PROGRAM(S)

- Data Center Efficiency Program. Data center study funding and rebates for implementing recommended changes.
- Study rebates and implementation rebates up to \$400/kW.

COMMENTS

- Xcel's Data Center Efficiency Program is very similar to Manitoba Hydro's Commercial Custom Measures Program.
- Xcel is simply marketing/promoting a custom-program to the I.T. sector.

PROGRAM AREA: New Construction

MANITOBA HYDRO PROGRAM(S)

- No minimum or maximum building size.
- Free technical guidance and expertise offered to all customers (and their design teams) when designing new commercial buildings.
- Further feasibility study assistance up to 50 per cent of the first \$5,000 and up to 25 per cent of the remaining portion, to a maximum incentive of \$10,000.
- Design and Construction incentives of \$1.00/sq.ft. of conditioned floor space.
- Average building incentive = \$350/kW + \$0.10/kWh.
- Prescriptive Building path: design and build your new building according to a prescribed measure set outlined in the Power Smart Design Standards. This path is most suitable for smaller buildings, such as retail shops, restaurants and small offices.
- Custom Building Design path: design and build your new building to perform at an energy efficiency level that is at least 33 per cent greater than the Model National Energy Code of Canada for Buildings.

XCEL ENERGY PROGRAM(S)

- Projects must be greater than 20,000 square feet.
- Energy Design assistance up to maximum of \$30,000 value.
- Construction incentives for energy conservation strategies at \$300/kW.

COMMENTS

- Manitoba Hydro's offer is more aggressive.
- Xcel Energy's project minimum of 20,000 square feet excludes many projects, while Manitoba Hydro does not have minimum or maximum building size requirements.
- Manitoba Hydro offers in-kind technical support, while Xcel Energy does not.
- Manitoba Hydro's incentive is larger.
- Manitoba Hydro offers a path for both design-build (small), and modeled buildings, while Xcel only addresses modeled buildings.

RESIDENTIAL SECTOR

PROGRAM AREA	MH POSITION	COMMENTS
Building Envelope	Leader	MH offers larger incentives with fewer barrier to customers
Water/Energy Saving Devices	Leader	Xcel does not offer program for water saving devices
Residential Lighting	Comparable	Both utilities offer incentives for CFLs and lighting fixtures
Residential New Construction	Leader	MH Program is available to all residential customers, Xcel program available to customers with both natural gas & electric accounts only
Appliances	Comparable	Both utilities offer/will offer a refrigerator recycling program. Xcel offers small rebates for Energy Star appliances as part of a larger program available to customers with both natural gas and electric accounts only.
Financing	Leader	Xcel does not offer financing
Energy Audits	Comparable	Both utilities offer in-home evaluations.
Geothermal	Comparable	MH focus is heating load, Xcel focus is cooling load.

PROGRAM AREA: Residential Building Envelope

MANITOBA HYDRO PROGRAM(S)

- The Home Insulation Program offers rebates to cover up to 100% of the cost of insulation when customers add insulation to meet Power Smart levels. The program has been available since 2004 to residential customers heating with electricity.
 - Attics: 2¢ per R per sq ft; must achieve R50.
 - Wall cavities: 4¢ per R per sq ft; must achieve minimum R10.
 - Wall exterior rigid: 10¢ per R per sq ft; must add minimum R3.75, maximum R10.
 - Basements: 2¢ per R per sq ft; basement must be uninsulated, must achieve minimum R24.
 - Crawlspace: 6¢ per R per sq ft; crawlspace must be uninsulated, must achieve minimum R24.

- Project costs of up to \$7 500 can be financed under the Power Smart Residential Loan.

XCEL ENERGY PROGRAM(S)

- Xcel offers rebates of 20% of the total cost of insulation and installation available to a maximum of \$300 per customer. Work must be completed by a registered contractor.
 - Attics - starting level must be R20 or less, final level must be minimum R44.
 - Walls- cavities must be empty, and be insulated to minimum R12.

COMMENTS

- Manitoba Hydro's program is more aggressive than the one offered by Xcel both in terms of the level of rebate and the targeted energy savings.
- Home Insulation Rebates are available to cover up to 100% of the material cost of the qualifying insulation upgrade, compared to 20% for XCEL.
- Home Insulation Rebates average \$800 per home as compared to \$300 limit for XCEL.
- The Home Insulation Program targets the highest energy saving measures, such as uninsulated basements and crawlspaces, resulting in short paybacks and better return on investment for customers.

PROGRAM AREA: Residential Water Heating/Consumption

MANITOBA HYDRO PROGRAM(S)

- The Water and Energy Saver Program offers free kits to residential customers containing up to 2 low flow showerheads, 1 kitchen faucet aerator, 2 bathroom faucet aerators, hot water pipe insulation, a hot water thermometer and a refrigerator thermometer. Under the multi-unit residential component of the program water saving devices are shipped to property managers and landlords for installation in customer suites. The second phase of the Program consists of direct installation of measures in customers' homes and is planned to begin in 2011.
- The Power Smart Residential Loan offers convenient on-bill financing for electric water heaters meeting the Power Smart Gold standard (EF .89 to .90 depending on size) and for qualifying drain water heat recovery systems.

XCEL ENERGY PROGRAM(S)

- Xcel Energy does not currently offer a water saving device program.
- Xcel Energy does not currently offer rebates for electric water heaters, however rebates are available for natural gas water heaters.

COMMENTS

- Manitoba Hydro's program offerings are more aggressive than those of Xcel Energy, as Xcel does not offer programs in this technology category.

PROGRAM AREA: Residential Lighting

MANITOBA HYDRO PROGRAM(S)

- Manitoba Hydro has offered an annual CFL incentive campaign since 2005. The most recent Program ended November 30, 2010 and consisted of point-of-sale rebate program through retailers across Manitoba.
 - \$1 rebate for standard spiral bulbs
 - \$3 rebate for specialty bulbs (covered, dimmable, bug lamp, etc)
- In 2007 Manitoba Hydro introduced the CFL Bulk Program for multi-unit residential buildings, offering property managers and landlords the same rebate levels as the in-store rebates. The Program features a streamlined application process and a verification process to ensure bulbs are installed. The Program is scheduled to end March 31, 2011.
- In 2007 Manitoba Hydro started an initiative in cooperation with Manitoba schools where participating elementary schools received a presentation outlining the benefits of energy efficient lighting, then went out into the community door to door delivering packages of CFLs to neighborhood households. Manitoba Hydro paid the school 50 cents per package delivered. The Program ended in 2010.
- In 2007, Manitoba Hydro was among the first Canadian utilities to offer an ENERGY STAR fixture rebate campaign. The most recent campaign ended November 30, 2010 and consisted of point-of-sale rebates through retailers across Manitoba.
 - \$10 rebate for dimmer switches valued at \$20 or more.
 - \$6 per light socket on each ENERGY STAR qualified fixture.
 - \$6 per T5 under cabinet light fixture.
 - \$1 per LED night light.

XCEL ENERGY PROGRAM(S)

- XCEL gives residential customers the opportunity to purchase CFLs and some fixtures at wholesale prices. Prices range from \$2.99 to \$11.99 depending on type and wattage. Orders can be placed either by phone or on line.

COMMENTS

- Manitoba Hydro's lighting program is more aggressive than the one offered by XCEL Energy in that the rebate levels are visible to the customer and extensively promoted at retail outlets.

PROGRAM AREA: Residential New Construction

MANITOBA HYDRO PROGRAM(S)

- The New Home Program launched in 2004 and offers a rebate of \$600 bill credit or up to \$1000 toward the purchase of a front load washing machine to customers who register and build their new home to Power Smart prescriptive standards. Houses are tested and certified by a third party contractor.
- Given the success that the Program had in the market, many of the Power Smart requirements were able to be incorporated into the Manitoba Building Code in 2010. As such, a new, more efficient new home standard is being researched.

XCEL ENERGY PROGRAM(S)

- Xcel Energy offers the ENERGY STAR Homes Program in communities serviced by Xcel natural gas only. Incentives are not offered to the consumer. The Program offers builders varying levels of value through free services provided and rebates offered, based on the size of the home and the heating fuel utilized. Houses serviced by electricity only are not eligible for any free services, while houses consuming natural gas are eligible for an HERS Rating, Energy Star and Tax Credit Verification, and Onsite Consulting. A rebate of \$500 is available for appliances, lighting and ECM furnace motor, and a rebate of \$250 is available for achieving a qualified ENERGY STAR HERS rating.

COMMENTS

- Manitoba Hydro's program is available to customers heating with electricity; Xcel's program is limited to natural gas only.
- Manitoba Hydro's program is more aggressive than the one offered by Xcel in terms of the level of service offered to customers through the certification process, and the breadth of access as a result of not limiting eligible builders.
- Manitoba Hydro's current New Home Program has achieved market acceptance of efficient technologies to the point where they were able to be included in the most recent version of the Manitoba Building Code, thus achieving energy savings well beyond participating homes.

PROGRAM AREA: Residential Appliances

MANITOBA HYDRO PROGRAM(S)

- Manitoba Hydro launched an ENERGY STAR appliance rebate program in 2005.
 - \$50 for ENERGY STAR refrigerator (ended March 31, 2007 when minimal federal standards governing refrigerator efficiency took effect).
 - \$100 for ENERGY STAR front load washing machines.
 - \$25 for ENERGY STAR chest freezers.
 - The Program ended March 31, 2008.
- Manitoba Hydro was one of the first utilities in Canada to offer an appliance rebate program. BC Hydro and Hydro Quebec consulted extensively with Manitoba Hydro staff prior to designing and launching their own programs.
- Manitoba Hydro will be launching a refrigerator/freezer recycling program in 2011. Customers will be encouraged to relinquish working refrigerators and freezers 15 years or older, in return for a \$40 incentive. Customers can receive an incentive for up to 3 units per residence.

XCEL ENERGY PROGRAM(S)

- The Energy Star Home Performance Program is offered to customers using both Xcel electricity and natural gas only, and offers the following appliance rebates:
 - \$50 clothes washer.
 - \$15 dishwasher.
 - \$15 refrigerator.
- A standard audit at a cost of \$60 is required, and the customer must complete a minimum of 3 required and 2 optional improvements to qualify for any rebates.
- Xcel currently has a refrigerator recycling program where customers can have their secondary refrigerator (primary units not eligible) picked up and receive a \$35 incentive. Customers are eligible to recycle one refrigerator per year.

COMMENTS

- Manitoba Hydro's appliance rebate program was available to customers regardless of heating fuel, allowing for maximum participation from the customer base. Xcel energy's program requires the customer to be both an electric and natural gas customer.
- Manitoba Hydro's refrigerator recycling program allows customers to upgrade the efficiency of their existing refrigerator, regardless of whether it is a primary unit or not, thereby providing greater opportunity for savings. Xcel Energy's program is limited to secondary units only, thereby limiting the number of eligible units.

PROGRAM AREA: Residential Financing

MANITOBA HYDRO PROGRAM(S)

- Manitoba Hydro launched the Power Smart Residential Loan Program in 2001, becoming the first Canadian utility to provide on bill financing directly related to energy conservation measures. Manitoba Hydro is to this day considered by organizations such as ESource to be the leader in North America with respect to encouraging conservation through financing.
- The Power Smart Residential Loan offers a lower interest rate for customers choosing energy efficient technologies when upgrading their homes. Measures such as insulation, windows and doors, heating equipment, weatherization products and ventilation equipment are eligible for financing.

XCEL ENERGY PROGRAM(S)

- Xcel does not offer on bill financing for energy efficient equipment.

COMMENTS

- Manitoba Hydro's program is more aggressive in this area as Xcel Energy does not have a comparable offering.

PROGRAM AREA: Residential Energy Audits

MANITOBA HYDRO PROGRAM(S) -

- Manitoba Hydro offers three options for customers to gain information about their home energy use:
 - 1) Mail in assessment at a cost of \$25.
 - 2) On line assessment at no cost.
 - 3) In Home evaluation at a cost of \$180; new approach pending relaunch of ecoENERGY program.

XCEL ENERGY PROGRAM(S)

- Xcel offers three options for customers to gain information about their home energy use.
 - 1) Home walkthrough at a cost of \$30.
 - 2) Standard audit (includes blower door) at a cost of \$60.
 - 3) Standard audit with infrared camera at a cost of \$100.
- Prices are net of a subsidy of 70%. Customers with both natural gas and electricity service from Xcel can qualify for grants by performing a minimum of 3 mandatory upgrades and 2 optional upgrades.

COMMENTS

- As a service provider under the federal ecoENERGY Program which ended March 31, 2011, Manitoba Hydro has facilitated federal grants to 41 500 customers.
- Xcel appears to be able to offer in home assessment at a lower cost than MH.

- **PROGRAM AREA: Residential Geothermal Heat Pumps**

MANITOBA HYDRO PROGRAM(S)

- Manitoba Hydro offers financial assistance towards the installation of residential geothermal heat pump systems through the Earth Power Program. Residential customers are eligible to apply for up to \$20 000 in low-interest financing. The financial terms include an open five-year fixed interest rate, currently set at 4.9%, over a 15-year maximum term.
- A registered member of the Manitoba Geothermal Energy Alliance must complete installations.

XCEL ENERGY PROGRAM(S)

- Xcel Energy offers rebates towards the installation of ground source heat pumps to improve the efficiency of cooling loads in the home. Customers are eligible for rebates of \$150 per ton, up to a 5-ton limit for ENERGY STAR qualified products. Qualified systems must have a minimum SEER of 14.1.
- A registered contractor must complete installation.

COMMENTS

- While customers can include cooling and domestic hot water loads in their eligible financing costs, Manitoba Hydro's primary focus for geothermal is heating loads. Xcel Energy's focus is on cooling loads.
- Low-interest financing has been an effective method to mitigate the initial cost barrier for geothermal systems in Manitoba.