

Measure	Savings Measure	Energy Savings (kWh/yr)	Annual Cost Savings (\$/yr)	Notes	Source
1. Dishwasher	Letting your dishes air-dry instead of using the heat-dry option will save 15-50% of your dishwasher's energy consumption.	95.875	\$9.59	-Assumed base case = energy star dishwasher -Assumed an average savings of 32.5%	Natural Resources Canada – Office of Energy Efficiency. "Instructions and Download Links for the ENERGY STAR Simple Savings Calculator and the ENERGY STAR Summary Calculator – Version 6.3" http://oee.nrcan.gc.ca/residential/business/energystar/procurement/programfiles/download.cfm (Accessed May 2012). California Energy Commission. "Consumer Energy Center: Dishwashers" http://www.consumerenergycenter.org/home/appliances/dishwashers.html (Accessed June 2012).
2. Oven/Stove	Using lids while you cook decreases your energy consumption by 8-14%	55.33	\$5.53	-Assumed base case = average electric range -Assumed an average savings of 11%	APS. "Energy Efficient Commercial Cooking" http://www.aps.com/images/pdf/cooking.pdf (Accessed June 2012).
	Always match your cookware to the burner size. Cooking with a 6-inch pot on an 8-inch burner reduces your burner's efficiency by 40%	201.2	\$20.12	-Assumed base case = average electric range	California Energy Commission – Consumer Energy Center. Winter Holiday Time Energy Saving Tips. http://www.consumerenergycenter.org/tips/holiday.html (Accessed July 2012)
	Keep your stove top's burners and reflectors clean. Replacing your old reflector with a new, high quality version can cut your energy consumption by a third.	165.99	\$16.60	-Assumed base case = average electric range	California Energy Commission – Consumer Energy Center. Winter Holiday Time Energy Saving Tips. http://www.consumerenergycenter.org/tips/holiday.html (Accessed July 2012)
	Ensure your cookware is in good condition and maintains contact with the burner. Pots and pans with warped bottoms can use up to 50% more energy than those with flat bottoms.	251.5	\$25.15	-Assumed base case = average electric range -Used the 50%	ACEEE. "Cooking" http://www.aceee.org/consumer/cooking (Accessed July 2012)
	Every time you open the oven door to check on the food, 20% of the heat is lost. Avoid opening the door and use the oven light instead.	77.2	\$7.72	-Assumed base case = standard electric oven -Assume people open the oven door once, every time they cook something (therefore applied a 20% to the oven consumption)	BC Hydro. "Trim Your Cooking Energy Use" http://www.bchydro.com/guides_tips/green-your-home/appliances_guide/cooking.html (Accessed July 2012)
3. Refrigerator	An ENERGY STAR qualified fridge is 20% more energy efficient than a non-qualified model.	120	\$12.00	-Savings based on the average off all standard refrigerator models that includes a freezer component	Natural Resources Canada – Office of Energy Efficiency. "Instructions and Download Links for the ENERGY STAR Simple Savings Calculator and the ENERGY STAR Summary Calculator – Version 6.3" http://oee.nrcan.gc.ca/residential/business/energystar/procurement/programfiles/download.cfm (Accessed May 2012).
4. Freezer	Brushing and vacuuming your refrigerator's coils can improve it's efficiency by 30%	160.5	\$16.05	-Assumed base case = energy star chest freezer	California Energy Commission. "Consumer Energy Center: Refrigerators and Freezers" http://www.consumerenergycenter.org/home/appliances/refrigerators.html (Accessed June 2012).
	Ensure your freezer is set to -18°C. A freezer that is set 5-6°C colder can use up to 25% more energy	133.75	\$13.38	-Assumed base case = energy star chest freezer	Natural Resources Canada – Office of Energy Efficiency. "Instructions and Download Links for the ENERGY STAR Simple Savings Calculator and the ENERGY STAR Summary Calculator – Version 6.3" http://oee.nrcan.gc.ca/residential/business/energystar/procurement/programfiles/download.cfm (Accessed May 2012).
5. Microwave	Cook one meal per week in your microwave instead of your oven	106.6	\$10.66	-Assumed a microwave can cook a meal in 15mins, while an oven cooks the same meal in 1 hour	Scientific American. "Stove versus Microwave: Which Uses Less Energy to Make Tea?" http://www.scientificamerican.com/article.cfm?id=stove-versus-microwave-energy-use (Accessed June 2012). BC Hydro. "Trim Your Cooking Energy Use" http://www.bchydro.com/guides_tips/green-your-home/appliances_guide/cooking.html (Accessed June 2012).
6. Electric Kettle	The most energy-efficient way to boil water is by using an electric kettle with auto-shutoff.	25.55	\$2.56	-Assumed 972W Kettle requires 125 seconds to boil 350ml of water -Assumed 1250W Stove element requires 318 seconds to boil 350ml of water -Assumed 1 cup per day Savings should increase as more water is boiled	Paster, P. "Ask Pablo: Electric Kettle, Stove, or Microwave Oven?" http://www.treehugger.com/clean-technology/ask-pablo-electric-kettle-stove-or-microwave-oven.html (Accessed June 2012).
7. Water Tips	A leaky hot water tap will waste money, energy and up to 75 litre-sized water bottles a week!	96.7	9.67	-Assumed 1 drop/second -Assumed electric water heating	Canada Mortgage and Housing Corporation. "Repair Leaking Taps" http://www.cmhc-schl.gc.ca/en/inpr/bude/himu/waensati/waensati_035.cfm (accessed June 2012).
8. Air Conditioning	Increase your home's temperature by 3°C when you are away, and then lower it back when you return home	51.69	\$5.17	-Assumed base case = residential, split system, ENERGY STAR SEER 14.5 central air conditioner -Assume the avg person is away 8hrs/day -Assumed a 3°C reduction results in 4.32% savings	US Department of Energy. "Thermostats and Control Systems" http://www.energysavers.gov/your_home/space_heating_cooling/index.cfm/mytopic=12720 (Accessed June 2012). Natural Resources Canada – Office of Energy Efficiency. "Instructions and Download Links for the ENERGY STAR Simple Savings Calculator and the ENERGY STAR Summary Calculator – Version 6.3" http://oee.nrcan.gc.ca/residential/business/energystar/procurement/programfiles/download.cfm (Accessed May 2012).
9. Clothesline	Install an outdoor clothesline to help you save electricity in the summer months.	149.4	\$14.94	-Assumed clothesline is used to dry 68 loads of laundry during the summer only	Ontario Power Authority. "2011 Prescriptive Measures and Assumptions List" http://www.powerauthority.on.ca/sites/default/files/2011%20Prescriptive%20Measures%20and%20Assumptions%20List%20Version%201.0%20FINAL%20%28April%2006%2C%202011%29.pdf (Accessed June 2012)
10. Weather-Stripping	Weather-stripping helps reduce air leaks and can reduce your home's heating and cooling needs by up to 20%. Get coupons toward weather-stripping.	4688.1	\$468.81	-Assumed base case = A + B -A = average electric furnace consumption for the mode of both heating and cooling -B = Average residential, split-system, EnergyStar SEER 14.5 central air conditioner consumption -Applied the 20% savings specified in the SOE tip	Ontario Power Authority. "2011 Prescriptive Measures and Assumptions List" http://www.powerauthority.on.ca/sites/default/files/2011%20Prescriptive%20Measures%20and%20Assumptions%20List%20Version%201.0%20FINAL%20%28April%2006%2C%202011%29.pdf (Accessed June 2012)

11. Pools	Setting your pool's thermostat back 3°C can reduce your pool's heating consumption by 20%	4218	\$421.80	-Assumed base case = avg Ontario pool without cover	Toronto Hydro. "Energy Efficiency Tips" http://www.torontohydro.com/sites/electricsystem/Documents/Energy%20Efficiency%20Tips%20English%20Nov27.pdf (Accessed July 2012)
	Using a pool cover every night that the air temperature is colder than the water temperature can reduce your pool's heating needs by 20%	4218	\$421.80	-Assumed base case = avg Ontario pool without cover	Toronto Hydro. "Energy Efficiency Tips" http://www.torontohydro.com/sites/electricsystem/Documents/Energy%20Efficiency%20Tips%20English%20Nov27.pdf (Accessed July 2012)
13. Computers	Always ensure you turn your laptop off at night	84	\$8.40	-Assumed base case = Energy Star Laptop	Natural Resources Canada – Office of Energy Efficiency. "Instructions and Download Links for the ENERGY STAR Simple Savings Calculator and the ENERGY STAR Summary Calculator – Version 6.3" http://oee.nrcan.gc.ca/residential/business/energystar/procurement/programfiles/download.cfm (Accessed May 2012).
14. Motion Sensors	Motion sensors are an ideal option for rooms where you may forget to turn off the lights.	42.04	\$4.20	-Motion sensors = 54% reduction in light usage -Savings are for the case of 1 indoor fixture with 2 60W incandescent bulbs	Ontario Power Authority. "2011 Prescriptive Measures and Assumptions List" http://www.powerauthority.on.ca/sites/default/files/2011%20Prescriptive%20Measures%20and%20Assumptions%20List%20Version%201.0%20FINAL%20%28April%2006%2C%202011%29.pdf (Accessed June 2012)
15. Programmable Thermostat	A programmable thermostat can reduce heating and cooling costs by up to 10%. In the summer, set your AC to 25°C when you are home and 28°C when away. In the winter, set your thermostat to 20°C when you are home and 18°C overnight or when away.	2344.05	\$234.41	-Assumed base case = A + B -A = average electric furnace consumption for both heating and cooling -B = Average residential, split-system, EnergyStar SEER 14.5 central air conditioner -Applied the 10% savings specified in the SOE tip	Ontario Power Authority. "2011 Prescriptive Measures and Assumptions List" http://www.powerauthority.on.ca/sites/default/files/2011%20Prescriptive%20Measures%20and%20Assumptions%20List%20Version%201.0%20FINAL%20%28April%2006%2C%202011%29.pdf (Accessed June 2012) Natural Resources Canada – Office of Energy Efficiency. "Instructions and Download Links for the ENERGY STAR Simple Savings Calculator and the ENERGY STAR Summary Calculator – Version 6.3" http://oee.nrcan.gc.ca/residential/business/energystar/procurement/programfiles/download.cfm (Accessed May 2012).
16. Phantom Power	Plug electronics into a power bar with a timer or auto-shut off and make sure they are turned off during periods of inactivity. Get <u>coupons</u> toward power bars.	100	\$10.00	- Assuming switching off combination of TV's, DVD players, cellphone chargers, computers, printers and cable TV converters when not in use.	British Columbia: Ministry of Energy and Mines and Responsible for Housing. "Your Energy Saving Kit" http://www.empr.gov.bc.ca/EAED/Documents/Energy%20Saving%20Kit%20Booklet.pdf (Accessed June 2012).
18. Fireplaces	Make sure the damper on your fireplace is closed. An open damper can increase your household heating and cooling needs by 30%	7032.15	\$703.22	-Assumed base case = A + B -A = average electric furnace consumption for both heating and cooling -B = Average residential, split-system, EnergyStar SEER 14.5 central air conditioner	Ontario Power Authority. "2011 Prescriptive Measures and Assumptions List" http://www.powerauthority.on.ca/sites/default/files/2011%20Prescriptive%20Measures%20and%20Assumptions%20List%20Version%201.0%20FINAL%20%28April%2006%2C%202011%29.pdf (Accessed June 2012) US Department of Energy. http://www.eere.energy.gov (Accessed June 2012)
	Proper fireplace sealing can reduce your household heating and cooling needs by an additional 14%	2297.169	\$229.72	-Assumed base case = A + B -A = average electric furnace consumption for both heating and cooling -B = Average residential, split-system, EnergyStar SEER 14.5 central air conditioner -This savings is applied to the heating and cooling requirements once the damper is closed (i.e. consumption net of the damper savings)	Ontario Power Authority. "2011 Prescriptive Measures and Assumptions List" http://www.powerauthority.on.ca/sites/default/files/2011%20Prescriptive%20Measures%20and%20Assumptions%20List%20Version%201.0%20FINAL%20%28April%2006%2C%202011%29.pdf (Accessed June 2012) US Department of Energy. http://www.eere.energy.gov (Accessed June 2012)
19. Ceiling Fan	An ENERGY STAR qualified ceiling fan is 50% more energy efficient than a non-qualified model and works well to keep rooms cool while turning down your CAC unit.	122.58	\$12.26	-The savings are associated with replacing 3 60W incandescent bulbs with 3 20W CFL bulbs, NOT motor efficiency, or reducing the usage of you CAC	Ontario Power Authority. "2011 Prescriptive Measures and Assumptions List" http://www.powerauthority.on.ca/sites/default/files/2011%20Prescriptive%20Measures%20and%20Assumptions%20List%20Version%201.0%20FINAL%20%28April%2006%2C%202011%29.pdf (Accessed June 2012)
20. Dehumidifiers	ENERGY STAR qualified dehumidifiers use 10 to 20% less energy than non-qualified models. Note: The savings from your Energy Star dehumidifier could power your Energy Star refrigerator for 5 months!	268	\$26.80	-Capacity = 24L -Energy Factor (conventional model) = 1.30 -Energy Factor (Energy Star model) = 1.66 -Operating days = 68days/yr at 24hrs/day	ENERGY STAR. "Dehumidifier Calculations for the ENERGY STAR Appliance Calculator" http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=DE (Accessed July 2012)
21. CFL Lighting	ENERGY STAR qualified compact fluorescent light bulbs (CFLs) use up to 75% less electricity and last up to 8 times longer. Get <u>coupons</u> toward CFL light bulbs.	46.32	\$4.63	-Assumed base case = 60W incandescent bulb (EUL = 1yr) -Assumed conservation case = 13W -Assumed operating hours = 2.7hrs/day	Ontario Power Authority. "2011 Prescriptive Measures and Assumptions List" http://www.powerauthority.on.ca/sites/default/files/2011%20Prescriptive%20Measures%20and%20Assumptions%20List%20Version%201.0%20FINAL%20%28April%2006%2C%202011%29.pdf (Accessed June 2012)
22. LED Lighting	For task lighting, consider light emitting diodes (LEDs). They are energy-efficient, last 30 times longer, and provide focused lighting. Get <u>coupons</u> toward LED lights.	46.32	\$4.63	-Assumed base case = 60W incandescent (EUL = 1 yr) -Assumed conservation case = 13W LED (EUL = 30 yrs) -Assumed operating hours = 2.7hrs/day	OPA 2012 Measures & Assumptions Lists
24. Pipes	Starting at your hot water tank, install pipe insulation around the first metre of the cold water pipe coming into the tank and the first two metres of the hot water copper pipes. If you have a gas-heated tank, start the pipe wrap 15cm away from exhaust vents at the top of the water heater. *Never insulate plastic pipes.	38	\$3.80	-Savings associated with 3ft of pipe insulation	Ontario Power Authority. "2011 Prescriptive Measures and Assumptions List" http://www.powerauthority.on.ca/sites/default/files/2011%20Prescriptive%20Measures%20and%20Assumptions%20List%20Version%201.0%20FINAL%20%28April%2006%2C%202011%29.pdf (Accessed June 2012)
25. Water Heater	Maximize your savings by wrapping your water heater with an insulating jacket to help reduce heat loss.	270	\$27.00	- Assumed average water heater size of 189 L (50 gallons) with EF of 0.90	Ontario Power Authority. "2011 Prescriptive Measures and Assumptions List" http://www.powerauthority.on.ca/sites/default/files/2011%20Prescriptive%20Measures%20and%20Assumptions%20List%20Version%201.0%20FINAL%20%28April%2006%2C%202011%29.pdf (Accessed June 2012)
27. Dryer		276.3	\$27.63	-Assumed base case = electric dryer (there is no Energy Star dryer at this point in time)	Natural Resources Canada. "2011 EnerGuide Appliance Directory" http://publications.gc.ca/collections/collection_2011/nrcan-nrcan/M141-6-2011.pdf (Accessed June 2012).
	Vacuuming the exhaust yearly and keeping your lint filter clean will help improve the overall efficiency of your dryer			Ontario Power Authority. "2011 Prescriptive Measures and Assumptions List" http://www.powerauthority.on.ca/sites/default/files/2011%20Prescriptive%20Measures%20and%20Assumptions%20List%20Version%201.0%20FINAL%20%28April%2006%2C%202011%29.pdf (Accessed June 2012)	
28. Washer	Use cold water on only full loads of laundry.	192	\$19.20	-Assumed 392 cycles/yr -CEE Tier 1 Washer (Energy Star)	U.S. EPA & US. DOE, Lifecycle Cost Estimator for ENERGY STAR Clotheswashers, October 2009. http://www.energystar.gov/ia/business/bulk_purchasing/bpsavings_calc/CalculatorBulkPurchasingClothesWasher.xls (Accessed August 2012)

29. Clock	The best time to use the washer or dryer is early in the morning, in the evening, or on weekends when electricity rates are the lowest.	0	\$64.10	-Assuming 392 washer cycles and 416 dryer cycles -Assumed each both cycles last 45 minutes	Ontario Energy Board. "Electricity Prices" http://www.ontarioenergyboard.ca/OEB/Consumers/Electricity/Electricity+Prices (Accessed June 2012). Ontario Power Authority. "2011 Prescriptive Measures and Assumptions List" http://www.powerauthority.on.ca/sites/default/files/2011%20Prescriptive%20Measures%20and%20Assumptions%20List%20Version%201.0%20FINAL%20%28April%2006%2C%202011%29.pdf (Accessed June 2012)
30. Furnace	Have a licensed HVAC professional service your furnace yearly to improve your unit's efficiency by 15-20%	3892.7	\$389.27	-Assumed base case = average furnace consumption for both heating and cooling mode (non-continuous fan) -Savings based on "proper HVAC maintenance" resulting in 15-20% energy savings (I used an average savings of 17.5%)	Consumers Energy. "Furnace and Central Air Conditioner Tune-Up Rebates Customer Overview" https://www.consumersenergytradeally.com/sites/consumersta/files/program_resources/CE_HVAC_Tune_Up_Customer_Overview.pdf (Accessed June 2012) Ontario Power Authority. "2011 Prescriptive Measures and Assumptions List" http://www.powerauthority.on.ca/sites/default/files/2011%20Prescriptive%20Measures%20and%20Assumptions%20List%20Version%201.0%20FINAL%20%28April%2006%2C%202011%29.pdf (Accessed June 2012)
31. Refrigerator Retirement	Get rid of your old refrigerator sitting in your garage. Learn how you can save up to \$125 per year with the FRIDGE & FREEZER PICK-UP.	1255	\$125.50	-Assumes the fridge being retired is 15 years or older	Ontario Power Authority. "2011 Prescriptive Measures and Assumptions List" http://www.powerauthority.on.ca/sites/default/files/2011%20Prescriptive%20Measures%20and%20Assumptions%20List%20Version%201.0%20FINAL%20%28April%2006%2C%202011%29.pdf (Accessed June 2012)
32. Refrigerator-freezer	Ensure that your kitchen's fridge compartments are set to the proper temperatures. If your fridge and freezer aren't set to 3°C and -18°C, you could waste an extra 25% on energy each year!	120	\$12.00	-Base Case = standard EnergyStar fridge-freezer (average of all orientations)	BC Hydro. "Be Efficient with Refrigeration" http://www.bchydro.com/guides_tips/green-your-home/appliances_guide/refrigeration.html (Accessed August 2, 2012)
	Keep the coils on the bottom of your refrigerator clean. Allowing dust and dirt to collect underneath your fridge can reduce your unit's efficiency by 25%.	120	\$12.00	-Base Case = standard EnergyStar fridge-freezer (average of all orientations)	Washington Military Department – Emergency Management Division. "40 Simple Ways to Save Energy Around the Home" http://www.emd.wa.gov/hazards/haz_simple_ways_to_save_energy.shtml (Accessed August 2, 2012)
	The next time you invest in a new fridge, chose a unit with a top-mounted freezer instead of a side-by-side model.	118	\$11.80	-Base Case = EnergyStar side-by-side model -Conservation Case = EnergyStar top-mounted model	Natural Resources Canada – Office of Energy Efficiency. "Instructions and Download Links for the ENERGY STAR Simple Savings Calculator and the ENERGY STAR Summary Calculator – Version 6.3" http://oe.nrcan.gc.ca/residential/business/energystar/procurement/programfiles/download.cfm (Accessed May 2012).