

*Lighting up the North*

# Energy Scorecard

An Energy Evaluation You Can Do At Home



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**Northland Utilities  
(NWT) Limited**  
An *ATCO* Company



**Northland Utilities  
(Yellowknife) Limited**  
An *ATCO* Company



**The Yukon Electrical  
Company Limited**  
An *ATCO* Company

# Empowering the North...

## Yukon Electrical Company Limited

The Yukon Electrical Company Limited has been providing electrical service to Yukoners for over a century. Chartered in 1901, the pioneer company began generating electricity for the residents of Whitehorse using a wood-fired, horizontal piston steam engine. Since then, Yukon Electrical has grown to serve 14,000 customers in 20 communities from south of the Yukon border to north of the Arctic Circle. A private, investor-owned utility, Yukon Electrical is a member of the ATCO Group of Companies. Its head office and service centre is in Whitehorse.

Today, Yukon Electrical purchases power from Yukon Energy Corporation, a crown corporation of the Yukon government, for distribution to its customers in Whitehorse, Marsh Lake, Tagish, Teslin, Haines Junction, Carmacks, Carcross, Keno and Ross River. It maintains back-up generating plants in Carmacks, Teslin, Haines Junction and Ross River in the event of a power interruption.

The company generates and distributes its own power in Old Crow, Pelly Crossing, Stewart Crossing, Beaver Creek, Destruction Bay, Upper Liard, Lower Post, Burwash, Watson Lake and Swift River. Yukon Electrical has customer service offices in Whitehorse and Watson Lake and plant operators in 10 communities, including Goodhope Lake. Yukon Electrical also owns and operates the Fish Lake Hydro plant, on the outskirts of Whitehorse. Built in 1950, the Fish Lake plant remains a steady contributor of power to customers in Whitehorse.

Yukon Electrical Company Limited

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## Northland Utilities Enterprises

Northland Utilities Enterprises has been lighting up the North for more than half a century. Its owners include northern investors, the Denendeh Development Corporation (14%) and Arctic Energy Investors (10%). The remaining shares are owned by ATCO Electric, one of the ATCO Group of Companies. Other northern ATCO companies include ATCO Frontec and its subsidiary Narwhal Arctic Services, and the Yukon Electrical Company Limited in the Yukon Territory.

One of NUE's two operating companies, Northland Utilities (NWT) Ltd., began operations in Hay River in 1951. Today, it provides electricity to 2,500 customers in Hay River, Trout Lake, Kakisa, Dory Point, Fort Providence, Wekweti, Enterprise and Kátl'odeeche First Nation. In 1988, Northland completed a \$3.5 million transmission line from Pine Point to Hay River which allows it to buy power from the Talston hydro system. It also maintains a back-up diesel generation plant in Hay River. In the small remote communities, Northland both generates and distributes its power.

The second of NUE's subsidiary companies, Northland Utilities (Yellowknife) Ltd., serves approximately 7,350 customers in Yellowknife and neighboring Ndilo. The company celebrated its 10th anniversary of service in 2003. In Yellowknife, Northland purchases power from the Snare Lake hydro dams for distribution to its customers.

Northland has the operational experience and corporate resources to offer northern businesses a full range of services, including electrical consulting, ownership and operation of power plants; and power plant operations and maintenance for industrial complexes. Northland is committed to maintaining a safe and healthy environment for staff and the general public, operating in an environmentally responsible fashion and to strong community support.

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# So Many Ways to Save... Entranceways

Every time one of your utility bills come in, the facts speak for themselves. You use energy in your home. Every day. Whether you're home or not.

But do you use it wisely?

Take this test. Walk through your home (room by room) with this booklet, a pencil and calculator in hand and follow these steps.

1. Determine if each question applies to your home. If it does, place a checkmark (✓) in the "Applies" box at the right side of the page. (Leave the box blank if the question does not apply to you.)
2. If the question applies to you, answer it. Mark "Y" for Yes and "N" for No in the "Answer" column.
3. At the end of each section fill in the subtotals by adding up the number of checkmarks in the "Applies" column and the number of "Y's" in the "Answer" column.
4. When you are finished auditing one room, add up all the "Applies" column subtotals to get your **Maximum Score** for each room.
5. Add up all the "Answer" column subtotals to determine **Your Score** for each room.
6. Transfer **Your Score** and **Maximum Score** for each room to page 38.

By doing this audit you can determine how efficient particular rooms are as well as your entire household. You can also "Take a Closer Look" on page 39 to determine which areas or technologies in your home should be more energy efficient.

Use the Action Plan at the end of the booklet to record what you plan to do to save energy in your home. Look at every question you answered "No" to. Make these action items for your family. Retain page 41 and put it on your refrigerator door as a reminder and get everyone involved!



**Home Design**

**Applies**  
(✓)

**Answer**  
(Y/N)

Do both the front and back entrance have two doors: a storm door and either a solid wood or insulated door?



**Heat loss can be cut by 70% if a single uninsulated exterior door is replaced with a solid wood or insulated door.**

Can your storm door be converted to a screen door in summer?



**This design saves energy in winter and permits additional ventilation in summer.**

Is your porch, carport or mudroom protected from strong winter winds?

**Subtotal**

**Lighting**

Is your outside entrance lighting controlled by photoelectric cells or motion sensors?

**Subtotal**

---

**Maximum Entranceway Score**

(Total "Applies" column)

**Your Entranceway Score**

(Total "Yes" answers)

---

Transfer "Entranceway" Scores to page 40

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# Bathroom

## Appliances

Applies  
(✓)

Answer  
(Y/N)

Do you minimize the use of your hair dryer?

Does your bathroom fan operate with the help of a timer or dehumidstat control?

Do family members shave with electric razors?

***These devices use less energy than heating the water for a blade shave.***

**Subtotal**

## Lighting

When no one is in the bathroom, are the lights always off?

Do the fixtures in your bathroom use energy-efficient fluorescent lights?

**Subtotal**

## Specialty Items

If you have a hot tub, pool, spa or sauna, do you use a spring wound timer or set an egg timer to keep track of the time you spend in it?

Is the hot tub, pool or jacuzzi always covered with an insulated material that reduces heat loss and evaporation when not in use?

***Heating an indoor hot tub costs \$10 - \$32 a month. An outdoor unit can cost \$16 - \$48 a month to heat.***

**Subtotal**



### Water Use

**Applies**  
(✓)      **Answer**  
(Y/N)

Are the taps for the sink, bathtub or shower always tightened to prevent faucet dripping?

Are washers in faucets replaced regularly?



***A dripping hot water tap can waste up to 20,000 litres (5,000 gallons) per year. That's water you're paying to heat!***

Are showers less than 10 minutes in duration at your house?



***If showers exceed 20 minutes in duration – conserve your hot water and enjoy a long soak in the bath. A bath uses as much water as a 15-minute shower.***

Is the showerhead an energy-efficient (low-flow) model?

Do you turn off the tap while you are brushing your teeth?

**Subtotal**

---

### Maximum Bathroom Score

(Total "Applies" column)

### Your Bathroom Score

(Total "Yes" answers)

---

*Transfer "Bathroom" Scores to page 40*

---

# Bedroom\*

## Lighting

If a light is left on in a bedroom all night (nightlight), is it a compact fluorescent bulb or a reduced wattage nightlight with a photocell?

Applies  
(✓)

Answer  
(Y/N)

**Subtotal**

## Specialty Items

If you have a waterbed, has it been covered with old quilts or a mattress pad before putting on the sheets to provide added insulation?



***A waterbed heater adds from \$8 - \$16 to your electric bill each month.***

Is your waterbed always made?



***Mom was right! It costs more to maintain an uncovered waterbed at a comfortable temperature.***

Do you turn your electric blanket on 1/2 hour before bedtime and then switch it off 1/2 hour before you get up?

Do you use a hot water bottle or extra blankets instead of an electric blanket?

**Subtotal**

**\* Answer based on all the bedrooms in your house.**



**Personal Preferences**

**Applies**  
(✓)

**Answer**  
(Y/N)

If you sleep with the window open when the weather is cool:

(a) do you close your bedroom door?



***Doing so avoids making the furnace run overtime to reheat at the same rate you're cooling the place down!***

(b) do you close the heat register under the window you leave open?



***Dad was right!  
There's no need to heat the great outdoors!***

**Subtotal**

|   |  |
|---|--|
| <b>Maximum Bedrooms Score</b><br>(Total "Applies" column) |  |
| <b>Your Bedrooms Score</b><br>(Total "Yes" answers)       |  |

*Transfer "Bedrooms" Scores to page 40*

# Home Office

## Home Design

**Applies**  
(✓)

**Answer**  
(Y/N)

Is your office designed so that you can work with normal daylight when practical?



***With the desk situated near a window, most times there is adequate sunlight to reduce or eliminate other forms of lighting in the room.***

**Subtotal**

## Appliances

Are the computer, monitor and printer turned off immediately after you are finished working with them?

If you have an electric typewriter or an electronic adding machine, do you always turn it off when you are finished working with it?

**Subtotal**



**Lighting**

**Applies**  
(✓)      **Answer**  
(Y/N)

Do you use halogen or compact fluorescent lamp fixtures as task lighting in the office instead of using general room lighting to read and work by?

Are lights in the office turned off once the room is vacated?

**Subtotal**           

|  |  |
|--|--|
| <b>Maximum Home Office Score</b><br>(Total "Applies" column) |  |
| <b>Your Home Office Score</b><br>(Total "Yes" answers)       |  |

*Transfer "Home Office" Scores to page 40*

# Family Room

## Home Design

**Applies**  
(✓)

**Answer**  
(Y/N)

Do you have adequate insulation around sliding doors and large panes of glass?



***If not, seal any gaps to prevent drafts and replace window panes that do not offer maximum insulation value.***

Are area rugs used underfoot to make hardwood or linoleum floors seem warmer?

**Subtotal**

## Appliances

When the family room is vacated, is the home entertainment equipment (stereo, electronic games, TV, VCR) always turned off?

Is the television set plugged into a socket controlled from a light switch so you can turn off the power easily when you have finished watching it?

**Subtotal**



## Lighting

**Applies**  
(✓)      **Answer**  
(Y/N)

Is the family room painted with glossy, lighter colours?



***Darker colours absorb more light and you will have to use higher wattage bulbs to achieve desired light levels in these areas.***

When the family room is vacated, are the lights always switched off?



***Try charging family members a quarter or a loonie every time they leave on lights or equipment that isn't necessary. They'll soon remember to turn them off.***

Does general room lighting use reduced wattage incandescent or compact fluorescent lamps?

Is general room lighting controlled by motion detectors or occupancy sensors?

Is decorative lighting (lights on pictures, pieces of art) and track lighting split into logical groups and controlled by separate switches?

Do you use direct lighting fixtures with halogen or compact fluorescent bulbs for comfortable and effective lighting for reading?



***Task lighting reduces the need for unnecessary general lighting and halogen or compact fluorescent bulbs use less energy than traditional incandescent room lighting.***

**Subtotal**

# Family Room cont'd

## Dining/Living Room

### Specialty Items

**Applies**  
(✓)

**Answer**  
(Y/N)

If you have a gas-burning fireplace:

(a) is your home's main thermostat turned down when the fireplace is operating?



(b) do you turn off the pilot light during summer months or when you're away on extended vacations?



If you regularly use a space heater, do you minimize its use by wearing extra clothing and slippers around the house?




**One space heater adds \$19 - \$32 a month in electricity costs.**

If you have an aquarium, do you control aquarium lights with a timer, so that they are on at night only?



**Subtotal**




---

### Maximum Family Room Score

(Total "Applies" column)

### Your Family Room Score

(Total "Yes" answers)

*Transfer "Family Room" Scores to page 40*

---



**Lighting**

**Applies**  
(✓)      **Answer**  
(Y/N)

Does your chandelier have reduced wattage incandescent bulbs?

Does a solid state dimmer switch control power to your chandelier?



***A dimmer allows you to reduce power to the bulbs when lower lighting levels are acceptable or preferable at certain times.***

Are your light fixtures releasing the light?



***Some fixtures actually prevent light from escaping, thus you may be using a higher wattage bulb than you need to light a specific area.***

**Subtotal**

---

**Maximum Dining/Living Room Score**

(Total "Applies" column)

**Your Dining/Living Room Score**

(Total "Yes" answers)

---

*Transfer "Dining/Living Room" Scores to page 40*

---

# Kitchen

## Home Design

**Applies**  
(✓)      **Answer**  
(Y/N)

Is your kitchen cool in the summer?




**Proper kitchen ventilation and the practice of using energy-efficient cooking methods (microwaving, etc.) all contribute to a cool, comfortable kitchen in the summer.**

Do you use your kitchen range hood to draw out hot air?



Are all cold appliances (refrigerator, freezer) kept away from hot appliances (ovens, ranges, dishwashers) in the kitchen?



Is the kitchen designed to allow a free flow of air around the refrigerator so heat from the motor can escape?



Is the refrigerator/freezer kept out of direct sunlight?



**Subtotal**



## Appliances

### I. Range

When you use your oven for cooking or baking:

(a) do you bake several dishes at one time?




**This action allows you to use oven heat most efficiently.**







(b) do you cover food when cooking?







**This reduces heat loss, moisture loss and cooking time.**





|  | <b>Applies<br/>(✓)</b>   | <b>Answer<br/>(Y/N)</b>  |
|--|--------------------------|--------------------------|
| (c) do you preheat the oven only for baked goods and just long enough to reach the required temperature?   | <input type="radio"/>    | <input type="radio"/>    |
| (d) do you leave the oven door closed?   | <input type="radio"/>    | <input type="radio"/>    |
|  <b><i>Each time the door is opened, oven temperature drops and more energy is required to bring it back to the correct temperature.</i></b> |                          |                          |
| Do you have a self-cleaning oven?  | <input type="radio"/>    | <input type="radio"/>    |
|  <b><i>A self-cleaning oven has more insulation which makes it more energy efficient.</i></b>  |                          |                          |
| Is the self-clean feature only used when the oven is already hot?  | <input type="radio"/>    | <input type="radio"/>    |
| When you use the range top for cooking:  |                          |                          |
| (a) do you use your double boiler frequently to cook two foods at once?  | <input type="radio"/>    | <input type="radio"/>    |
| (b) do you occasionally use a pressure cooker?   | <input type="radio"/>    | <input type="radio"/>    |
|  <b><i>Food cooks 5 to 10 times faster and you'll save energy.</i></b>   |                          |                          |
| (c) do you cook foods in as little water as possible, steaming whenever possible?  | <input type="radio"/>    | <input type="radio"/>    |
|  <b><i>This reduces the amount of time and heat needed to bring larger amounts of water to boil.</i></b>                                   |                          |                          |
| Is your range cookware heavy and flat-bottomed?  | <input type="radio"/>    | <input type="radio"/>    |
| Do you try and match pots and pans to stove element with closest burner size?  | <input type="radio"/>    | <input type="radio"/>    |
| <b>Subtotal</b>  | <input type="checkbox"/> | <input type="checkbox"/> |

# Kitchen cont'd


|   | <b>Applies<br/>(✓)</b> | <b>Answer<br/>(Y/N)</b> |
|---|------------------------|-------------------------|
| Is your range cookware the same size or just slightly larger than the elements?   | <input type="radio"/>  | <input type="radio"/>   |
| Is your range cookware complete with tight-fitting lids?  | <input type="radio"/>  | <input type="radio"/>   |
|  <b>Proper cookware allows you to achieve the best results and put every watt of energy to good use.</b>  |                        |                         |
| <b>II. Refrigerators</b>  |                        |                         |
| Do you try to minimize the amount of time the refrigerator door is open?  | <input type="radio"/>  | <input type="radio"/>   |
|  <b>Organize items so you can find them quickly and close the door before too much warm air gets in and causes the appliance to work overtime.</b>                    |                        |                         |
| Is your refrigerator about 2/3 full?  | <input type="radio"/>  | <input type="radio"/>   |
|  <b>Don't pack your refrigerator too full! Allow air to circulate freely inside for more efficient cooling. If your fridge is too full, it will use more energy.</b> |                        |                         |
| Do you avoid using a second refrigerator?   | <input type="radio"/>  | <input type="radio"/>   |
|  <b>A second refrigerator used to keep beverages cold costs you between \$6 and \$12 a month in electric energy costs.</b>  |                        |                         |
| Do you perform maintenance checks on your refrigerator every six months?  | <input type="radio"/>  | <input type="radio"/>   |
| Do you unplug the refrigerator and vacuum off the condenser coils behind or underneath it at least twice a year?  | <input type="radio"/>  | <input type="radio"/>   |





|  | Applies<br>(✓)        | Answer<br>(Y/N)       |
|--|-----------------------|-----------------------|
| Is the refrigerator door seal tight?   | <input type="radio"/> | <input type="radio"/> |
|  <b>Adjust the door if necessary and replace seals to ensure cold air is not escaping.</b> |                       |                       |

|  |                       |                       |
|--|-----------------------|-----------------------|
| Is the temperature at 3°C (38°F)?  | <input type="radio"/> | <input type="radio"/> |
|  <b>Anything warmer may spoil food; anything cooler will freeze some items and waste energy.</b> |                       |                       |

### III. Small Appliances




|  |                       |                       |
|--|-----------------------|-----------------------|
| Do you always use the smallest appliance possible to do the job?   | <input type="radio"/> | <input type="radio"/> |
|  <b>Slow cookers, breadmakers and other small appliances produce the same quality product, produce less heat and, in almost all cases, use much less energy.</b> |                       |                       |

|  |                       |                       |
|--|-----------------------|-----------------------|
| Do you try to cook in the microwave oven whenever possible?  | <input type="radio"/> | <input type="radio"/> |
|  <b>Only 12% of the heat in conventional ovens actually cooks the food! More energy is lost heating the cookware and surrounding air. A microwave takes approximately 1/4 of the time and 1/2 the energy to cook food items.</b> |                       |                       |

|   |                       |                       |
|---|-----------------------|-----------------------|
| Do you use an electric kettle or coffee maker to make tea or coffee?  | <input type="radio"/> | <input type="radio"/> |
|  <b>They take up to 40% less energy than using the range.</b> |                       |                       |

|   |                       |                       |
|---|-----------------------|-----------------------|
| Is coffee kept hot in a thermos rather than by using the range element or the element on your coffee maker? | <input type="radio"/> | <input type="radio"/> |
|---|-----------------------|-----------------------|

# Kitchen cont'd

|  | <b>Applies<br/>(✓)</b>   | <b>Answer<br/>(Y/N)</b>  |
|--|--------------------------|--------------------------|
| Do you clean your kettle and coffee maker with water and vinegar regularly?  | <input type="radio"/>    | <input type="radio"/>    |
|  <b><i>Doing so rids components of hard water mineral deposits that hamper energy efficiency.</i></b>  |                          |                          |
| <b>Subtotal</b>  | <input type="checkbox"/> | <input type="checkbox"/> |
| <br><b>Lighting</b>  |                          |                          |
| Do you replace traditional incandescents with energy efficient compact fluorescent lamps?  | <input type="radio"/>    | <input type="radio"/>    |
|  <b><i>Compact fluorescent lamps use up to 75% less energy than equivalent incandescent bulbs, and provide the same amount of light.</i></b> |                          |                          |
| If you have a 'sunshine ceiling', does it consist of reduced wattage (34 or 32 W) fluorescent tubes and energy efficient ballasts?   | <input type="radio"/>    | <input type="radio"/>    |
| <b>Subtotal</b>  | <input type="checkbox"/> | <input type="checkbox"/> |
| <br><b>Specialty Items</b>   |                          |                          |
| If you have a food waste disposal or garburator:   |                          |                          |
| (a) do you operate it with cold water only?  | <input type="radio"/>    | <input type="radio"/>    |
| (b) do you minimize its use and compost wherever possible?   | <input type="radio"/>    | <input type="radio"/>    |
|  <b><i>Instead of plugging our waterways with unneeded nutrients, compost food waste and use it as free fertilizer.</i></b>                |                          |                          |



|  | <b>Applies<br/>(✓)</b> | <b>Answer<br/>(Y/N)</b> |
|--|------------------------|-------------------------|
| If you own an automatic dishwasher:  |                        |                         |
| (a) do you wash full loads to get the most cleaning from the heated water?   | <input type="radio"/>  | <input type="radio"/>   |
| (b) do you air-dry dishes on the no-heat dry (or energy-saver) cycle or open the door at the end of the rinse cycle? | <input type="radio"/>  | <input type="radio"/>   |
| (c) do you avoid using the plate warmer cycle?   | <input type="radio"/>  | <input type="radio"/>   |



***Warm plates in a warm oven after cooking a meal.***

|  |                       |                       |
|--|-----------------------|-----------------------|
| (d) do you reduce hot water consumption by pre-rinsing dishes in cold water at the sink then using the shortest wash cycle possible? | <input type="radio"/> | <input type="radio"/> |
|--|-----------------------|-----------------------|



***Purchase a dishwasher model that uses the least amount of hot water and has a booster heater that brings incoming water to the recommended temperature (usually 60°C [140°F]). Lower the temperature on your hot water tank to reduce overall water heating costs.***

|                 |                          |                          |
|-----------------|--------------------------|--------------------------|
| <b>Subtotal</b> | <input type="checkbox"/> | <input type="checkbox"/> |
|-----------------|--------------------------|--------------------------|

## **Water Use**

|  |                       |                       |
|--|-----------------------|-----------------------|
| Is the kitchen tap equipped with a faucet aerator? | <input type="radio"/> | <input type="radio"/> |
|--|-----------------------|-----------------------|

|   |                       |                       |
|---|-----------------------|-----------------------|
| Do you use ice cubes in your water instead of running the cold tap to reach the temperature you desire? | <input type="radio"/> | <input type="radio"/> |
|---|-----------------------|-----------------------|

|                 |                          |                          |
|-----------------|--------------------------|--------------------------|
| <b>Subtotal</b> | <input type="checkbox"/> | <input type="checkbox"/> |
|-----------------|--------------------------|--------------------------|

# Kitchen cont'd

## Laundry/Utility Room

### Personal Preferences

**Applies**  
(✓)      **Answer**  
(Y/N)

Do you do your cooking and dishwashing in the early morning or late evening, during the cooler hours of the day?



When you last shopped for a large appliance, did you compare EnerGuide labels?




***They show the kilowatt-hours (kW.h) per year rating of the appliance. The lower the kW.h per year rating, the lower the future operating costs will be. The cheapest initial price of an appliance isn't always the best long-term buy.***

Do you have the right sized appliances for your household?




***Bigger is not always better. One that is too large will waste energy, while one that is too small will be overworked.***

**Subtotal**




---

### Maximum Kitchen Score

(Total "Applies" column)

### Your Kitchen Score

(Total "Yes" answers)

*Transfer "Kitchen" Scores to page 40*

---



**Home Design**

**Applies**  
(✓)

**Answer**  
(Y/N)

Is your hot water heater placed close to areas where the most hot water is used to avoid water cool-down in the pipes?

**Subtotal**

**Appliances**

**I. Freezer**

Is your freezer temperature at -18°C (0°F)?



***Lower temperatures waste energy and do not improve the freezer life of foods.***

Is your freezer more than two-thirds full for maximum efficiency?



***It takes more energy to keep air cold than food or water frozen.***

When you use your free-standing freezer:





(a) do you go into your freezer knowing what you need and close the door quickly?

(b) do you let hot items cool in cold water before freezing to reduce the energy required to cool and freeze the contents?



***This also protects the food's flavor and nutritional value.***

# Laundry/Utility Room cont'd

|   | <b>Applies<br/>(✓)</b> | <b>Answer<br/>(Y/N)</b> |
|---|------------------------|-------------------------|
| (c) do you cover dishes tightly and seal other containers well to prevent frost-forming evaporation from settling on freezer walls?   | <input type="radio"/>  | <input type="radio"/>   |
| (d) do you freeze food rapidly and in small amounts?  | <input type="radio"/>  | <input type="radio"/>   |
|  <b>No more than 1.5 kg (2-3 lbs.) of food per 28 litres (one cubic foot) of freezer capacity in 24 hours to avoid overworking the freezer.</b>   |                        |                         |
| (e) do you place new packages against freezing surfaces and leave space between packages to allow cold air to circulate?  | <input type="radio"/>  | <input type="radio"/>   |
|  <b>When frozen, packages may be stored close together.</b>   |                        |                         |
| Is the rubber gasket around the door kept clean and in good condition to avoid cold air loss?   | <input type="radio"/>  | <input type="radio"/>   |
| Do you own a chest freezer (rather than an upright model)?  | <input type="radio"/>  | <input type="radio"/>   |
|  <b>A chest freezer has 7.86 cm (3") insulation, more than an upright model. Also, since cold air settles to the bottom, less cold air escapes from the chest freezer when it's opened.</b> |                        |                         |
| Is your manual defrost freezer defrosted when there is more than 7 mm (1/4") of frost?  | <input type="radio"/>  | <input type="radio"/>   |
| Do you unplug the freezer and clean condenser coils twice a year?   | <input type="radio"/>  | <input type="radio"/>   |
|  <b>Dust and dirt accumulating on the coils causes extra energy usage.</b>  |                        |                         |



**Applies**  
(✓)      **Answer**  
(Y/N)

## II. Clothes Washer

When you use your clothes washer:

(a) do you load the washer to capacity and run the washer only for a full load?



***Fill the washer to the very top line of holes in the drum – don't overload. A half load wastes energy and an over-filled washer doesn't clean your clothes properly.***

(b) do you wash in warm or cold water and rinse in cold whenever possible?

(c) do you use hot water only for heavily soiled clothes and pre-soak these before washing?



***The pre-soak usually helps loosen debris from fabrics and assists in the cleaning process.***

**Subtotal**

## III. Clothes Dryer

Is metal piping used as ducting to exhaust humid air outside?



***If long, plastic flex tubing is used as ducting, the flow of humid air to the outdoors is impaired due to increased turbulence within the tube. Your clothes will take longer to dry and you will be using more energy.***

When you use your clothes dryer:

(a) do you reduce heat loss by ensuring the outside dryer vent has a damper to cover the opening?

**Subtotal**

# Laundry/Utility Room cont'd

(b) do you ensure ducting to the outside is free of obstructions?

**Applies**  
(✓)

**Answer**  
(Y/N)



***Clothes take longer to dry if something is obstructing the humid air from escaping.***

(c) do you avoid over-drying clothes or overloading the dryer?



***You will increase energy consumption if you over-dry or overload the dryer.***

Do you take advantage of warm, breezy days to dry clothes outside on a clothesline?

Do you disconnect the power supply and vacuum away the dust and lint collected around the electric motor drive of washers and dryers once a year?

Do you free washer and dryer filters of lint and other material before each use to increase operating efficiency?



***When it comes time to replace your electric dryer, consider installing a natural gas model to reduce energy costs.***

## IV. Iron

When you use an electric iron:

(a) do you preheat an iron for two minutes only and leave it on only while in use?



|  | <b>Applies<br/>(✓)</b>   | <b>Answer<br/>(Y/N)</b>  |
|--|--------------------------|--------------------------|
| (b) do you do all ironing at once rather than heating up the iron for only one item?                           | <input type="radio"/>    | <input type="radio"/>    |
| (c) do you iron clothes requiring the highest heat first then work down to the ones requiring the lowest heat? | <input type="radio"/>    | <input type="radio"/>    |
| (d) do you turn off the iron for the last few items and use the remaining heat?                                | <input type="radio"/>    | <input type="radio"/>    |
| <b>Subtotal</b>  | <input type="checkbox"/> | <input type="checkbox"/> |

### **Lighting**

Do you use direct task lighting for close work to reduce energy used for general lighting?





Have you replaced 60-watt incandescent bulbs with 15-watt compact fluorescent lamps in areas where lighting is on more than 4 hours per day?



***They provide up to four times as much light per watt and last up to 10 times longer.***

**Subtotal**

# Laundry/Utility Room cont'd

|  |   | <b>Applies<br/>(✓)</b>   | <b>Answer<br/>(Y/N)</b>  |
|--|---|--------------------------|--------------------------|
| <b>Water Use</b>   |   |                          |                          |
|  | Is your hot water heater thermostat set at 55°C (130°F)?  | <input type="radio"/>    | <input type="radio"/>    |
|    | <b><i>If you have a dishwasher without a temperature booster, you'll need to set the water temperature at 60°C (140°F).</i></b> |                          |                          |
|  | Are water pipes insulated in your house?  | <input type="radio"/>    | <input type="radio"/>    |
|    | <b><i>Insulation slows down the cooling process as water runs from the hot water heater to wherever it's needed.</i></b>        |                          |                          |
|  | Have you installed an electric hot water heater insulating blanket?   | <input type="radio"/>    | <input type="radio"/>    |
|  | Have you drained your water heater in the last six months?  | <input type="radio"/>    | <input type="radio"/>    |
|   | <b><i>This removes sediment build up that hampers the efficiency of the heater. Turn off the power or gas first!</i></b>        |                          |                          |
|  | If you have an electric hot water heater, will you replace it with a more energy efficient natural gas model?                   | <input type="radio"/>    | <input type="radio"/>    |
|  | <b><i>The savings in operating costs will allow you to recoup your investment in three to four years</i></b>                    |                          |                          |
|  | <b>Subtotal</b>   | <input type="checkbox"/> | <input type="checkbox"/> |



|                |               |
|----------------|---------------|
| <b>Applies</b> | <b>Answer</b> |
| (✓)            | (Y/N)         |

**Personal Preferences**

The last time you purchased laundry equipment:

(a) did you choose a washer that uses less water than others?

|                       |                       |
|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> |
|-----------------------|-----------------------|

**Ask your retailer for documentation.**

**Less water to heat = less energy to use = less money to operate.**



(b) did you choose a model suitable to the volume of clothes you intended to wash and dry?

|                       |                       |
|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> |
|-----------------------|-----------------------|

|                 |                          |                          |
|-----------------|--------------------------|--------------------------|
| <b>Subtotal</b> | <input type="checkbox"/> | <input type="checkbox"/> |
|-----------------|--------------------------|--------------------------|

|   |  |
|---|--|
| <b>Maximum Laundry/Utility Room Score</b><br>(Total "Applies" column) |  |
| <b>Your Laundry/Utility Room Score</b><br>(Total "Yes" answers)       |  |

*Transfer "Laundry/Utility" Scores to page 40*

# Outdoors/Garage

## Appliances

Applies  
(✓)

Answer  
(Y/N)

Are power tool blades and bits kept sharp?



**Sharp edges cut faster and make your equipment that much more efficient.**

Do you cut your grass regularly to avoid overworking the mower's motor?

Have you tried using a people-powered push mower to get a bit of exercise while saving energy and money?

**Subtotal**

## Lighting

Does your yard and security lighting use high or low pressure sodium lamps?



**Replacing 175-watt mercury vapour lamps with 100-watt high pressure sodium lamps reduces energy use by almost 300 kW.h and costs by \$19-\$21 annually.**




Do you use fluorescent tubes instead of incandescent lights in your garage or shop?



**Fluorescent tubes produce 3 to 4 times as much light, use less electricity, last 10 to 20 times longer and give off less heat.**

Have you installed reduced wattage bulbs in non-work areas?



|   | <b>Applies</b><br>(✓)    | <b>Answer</b><br>(Y/N)   |
|---|--------------------------|--------------------------|
| <b>I. Christmas Lighting</b>  |                          |                          |
| Do you leave Christmas lights on for four hours or less per day in the Christmas season?  | <input type="radio"/>    | <input type="radio"/>    |
| Do you use 5W light bulb strings instead of 7W strings?   | <input type="radio"/>    | <input type="radio"/>    |
| Do you use outdoor miniature lights or indoor miniature lights?   | <input type="radio"/>    | <input type="radio"/>    |
|  <b><i>These lights use only 20% of the energy used by 5W strings!</i></b>    |                          |                          |
| Have you put reflectors on energy-efficient outdoor 5-watt Christmas bulbs?   | <input type="radio"/>    | <input type="radio"/>    |
|  <b><i>Doing so gives you twice the light at half the operating cost.</i></b> |                          |                          |
| Do you always turn off indoor Christmas lights when you leave a room to save energy and increase safety?  | <input type="radio"/>    | <input type="radio"/>    |
| Is your outdoor decorative lighting controlled by a timer?  | <input type="radio"/>    | <input type="radio"/>    |
|  <b><i>Switch lights on after 8 pm and off before you go to bed.</i></b>    |                          |                          |
| <b>Subtotal</b>   | <input type="checkbox"/> | <input type="checkbox"/> |

# Outdoors/Garage cont'd

## Whole House

### Vehicle Plug-Ins

Applies  
(✓)

Answer  
(Y/N)

Do you plug in your vehicle for a maximum of four hours to pre-heat the engine?




***It won't get any warmer or easier to start if plugged in longer.***

Have you installed a grounded, all-weather timer or power saver cord to save energy on vehicle plug-ins?




***A timer can be used with immersion or clamp-on block heaters so the power will automatically come on four hours before you need your vehicle to start.***

***A power saver cord can be installed on the heater feed hose of vehicles with immersion block heaters. It senses the coolant temperature and cycles the power on and off to maintain the minimum block coolant temperature required for starting. A power saver cord cannot be used with clamp-on block heaters because they are not in direct contact with the engine coolant.***

If you use an interior car warmer is it controlled by a timer or power saver cord?





### Garage Heaters

**Subtotal**

Garage heaters can consume a surprising amount of gas.

Is your garage insulated properly?



Is your garage heater maintained at a lower temperature at different parts of the day?






**Subtotal**

### Maximum Outdoor/Garage Score

(Total "Applies" column)

### Your Outdoor/Garage Score

(Total "Yes" answers)



Now that you've walked through your home, think about some of the energy issues that affect your whole house.

### Heating System

**Applies**  
(✓)      **Answer**  
(Y/N)

Do you have adequate insulation in walls, the attic and basement?



***There are approved forms of blanket and loose fill insulation which meet the latest insulation standards to prevent heat loss in winter and overheating in summer. The attic is the easiest and least expensive area to insulate.***

Are all thermostats located on inside walls, free from drafts, sunlight and other heat or cooling sources?

Do you regularly clean and clear heat registers of dust and dirt and ensure furniture is not obstructing air movement?



***Ensuring adequate air circulation makes the most of your heating dollars!***

Is all ductwork cleaned annually?







Have you sealed joints and gaps in the heating and cooling system ducts with duct tape, then covered all exposed ducts with insulation?

Are there any annoying drafts in your house?



***Apply caulking or weather stripping to gaps 3mm (1/8") or wider or wherever you can see light or feel a draft around an outside door or window frame to eliminate drafts and heat loss.***

# Whole House cont'd

|   | <b>Applies<br/>(✓)</b> | <b>Answer<br/>(Y/N)</b>  |
|---|------------------------|--------------------------|
| <p>Your operating furnace is responsible for about 70% of your annual natural gas consumption.</p> <p>Is your heating equipment efficient?</p>  | <input type="radio"/>  | <input type="radio"/>    |
| <p> <b>When replacing older heating equipment, keep in mind that modern efficient heating equipment use less energy so they cost less to operate.</b></p> |                        |                          |
| <p>Is your home properly ventilated to replace hot air with cool air?</p>   | <input type="radio"/>  | <input type="radio"/>    |
| <p> <b>This reduces the need for air conditioning and electric fans!</b></p>  |                        |                          |
| <p>Is your furnace equipped with a high efficiency 1/3 hp furnace motor?</p>  | <input type="radio"/>  | <input type="radio"/>    |
| <p> <b>It consumes less electricity than a standard 1/3 hp motor.</b></p>   |                        |                          |
| <p>Do you allow your furnace to cycle on and off rather than running continuously?</p>  | <input type="radio"/>  | <input type="radio"/>    |
| <p> <b>A motor that operates only when necessary uses just 22% of the electric energy needed to run it continuously.</b></p>                              |                        |                          |
| <p>Do you have your heating system checked and serviced annually by a qualified furnace repair person?</p>  | <input type="radio"/>  | <input type="radio"/>    |
| <p>Is your furnace filter cleaned or replaced monthly during the heating season?</p>  | <input type="radio"/>  | <input type="radio"/>    |
| <p>Is your household thermostat set at 20°C (68°F) when you are home?</p>   | <input type="radio"/>  | <input type="radio"/>    |
| <p> <b>Frequent changes while you are home waste energy and cause unnecessary equipment wear.</b></p>   |                        |                          |
| <p>Do you turn down the thermostat at night and when you are not at home?</p>   | <input type="radio"/>  | <input type="radio"/>    |
| <p> <b>If you tend to forget, purchase a programmable thermostat to do it for you.</b></p>  |                        |                          |
|   | <b>Subtotal</b>        | <input type="checkbox"/> |



## Home Design

**Applies**  
(✓)      **Answer**  
(Y/N)

Do you have storm windows and/or multiple glazed windows?



***These all help to minimize heat loss in winter and gain in summer.***

If you have a south facing window, do you have a (removable) awning or a light-screening film on this window in the summertime?

Have you built a high fence or planted evergreens and shrubs on the north and west side of your house?



***Fences and trees provide good windbreak from icy winter winds.***

Have you landscaped with leafy deciduous trees on the east and south?



***These trees provide shade during the summer and let the sun in during the winter when they lose their leaves.***



If you own a mobile/manufactured home, have you checked to ensure that all of your heat tape is properly installed?



***Improperly installed heat tape wastes energy and money each month.***

**Subtotal**


# Whole House cont'd


|   | Applies<br>(✓)           | Answer<br>(Y/N)          |
|---|--------------------------|--------------------------|
| <b>Appliances</b>   |                          |                          |
| Are vacuum dust bags emptied frequently?  | <input type="radio"/>    | <input type="radio"/>    |
|  <b><i>This improves your vacuum cleaner's operating efficiency and allows it to use less electricity.</i></b>  |                          |                          |
| Are all electrical appliances operated in heated areas of your home?  | <input type="radio"/>    | <input type="radio"/>    |
|  <b><i>Do not place working appliances in non-heated areas, including the porch or garage. The cold temperatures are hard on hot water heaters, freezers, refrigerators and other appliance components – making the appliances use more energy.</i></b> |                          |                          |
| <b>Subtotal</b>   | <input type="checkbox"/> | <input type="checkbox"/> |

## Lighting

### When you replace lights around the house:

- (a) do you use energy saving, reduced wattage incandescent bulbs (34W, 52W, 67W, 90W, 135W) where the light is left on for short periods of time?
- (b) do you use compact fluorescents (11W, 15W, 20W) where the light is left on for long periods of time?

 ***You likely won't notice the difference in lighting, they'll last longer, you'll use less energy and pay less in operating costs.***

- Are all of your standard fluorescent tube ballasts replaced with energy-efficient models?
-  ***Energy consumption will drop 8% without loss of light.***
- Subtotal**



|  | <b>Applies</b><br>(✓) | <b>Answer</b><br>(Y/N) |
|--|-----------------------|------------------------|
| Do you disconnect the ballast when you remove a fluorescent lamp/tube? | <input type="radio"/> | <input type="radio"/>  |



***It will continue to consume energy, with or without the lamp.***

|   |                       |                       |
|---|-----------------------|-----------------------|
| Do you make it a practice to clean bulbs and fixtures regularly to get the most light from each lamp? | <input type="radio"/> | <input type="radio"/> |
|---|-----------------------|-----------------------|

|  |                       |                       |
|--|-----------------------|-----------------------|
| Is it a priority to choose light fixtures that release rather than trap the light? | <input type="radio"/> | <input type="radio"/> |
|--|-----------------------|-----------------------|

|   |                       |                       |
|---|-----------------------|-----------------------|
| Do you replace bulbs when they appear "blackened" before they burn out? | <input type="radio"/> | <input type="radio"/> |
|---|-----------------------|-----------------------|

|                 |                          |                          |
|-----------------|--------------------------|--------------------------|
| <b>Subtotal</b> | <input type="checkbox"/> | <input type="checkbox"/> |
|-----------------|--------------------------|--------------------------|

### **Specialty Items**

If you own an air conditioning unit:

|   |                       |                       |
|---|-----------------------|-----------------------|
| (a) do you have a model that is the right size for your cooling requirements? | <input type="radio"/> | <input type="radio"/> |
|---|-----------------------|-----------------------|



***18 Btu/h cools and dries 1 square foot of living space.***

|   |                       |                       |
|---|-----------------------|-----------------------|
| (b) do you turn it off when going out for more than one hour? | <input type="radio"/> | <input type="radio"/> |
|---|-----------------------|-----------------------|



***Don't cool an empty house.***

|   |                       |                       |
|---|-----------------------|-----------------------|
| (c) do you have it installed correctly to eliminate air leaks and ensure efficient operation? | <input type="radio"/> | <input type="radio"/> |
|---|-----------------------|-----------------------|

|                 |                          |                          |
|-----------------|--------------------------|--------------------------|
| <b>Subtotal</b> | <input type="checkbox"/> | <input type="checkbox"/> |
|-----------------|--------------------------|--------------------------|

# Whole House cont'd

|  | <b>Applies<br/>(✓)</b> | <b>Answer<br/>(Y/N)</b> |
|--|------------------------|-------------------------|
| (d) do you have it located on a north window or provide a shading device to increase efficiency? | <input type="radio"/>  | <input type="radio"/>   |

|   |                       |                       |
|---|-----------------------|-----------------------|
| (e) do you keep the vent grille, unit filters and inside and outside coils clean? | <input type="radio"/> | <input type="radio"/> |
|---|-----------------------|-----------------------|



***Proper maintenance improves the operating efficiency of every electric appliance.***

|   |                       |                       |
|---|-----------------------|-----------------------|
| (f) do you set the thermostat at a comfortable temperature between 25°C (77°F) and 27°C (80°F) and keep it there? | <input type="radio"/> | <input type="radio"/> |
|---|-----------------------|-----------------------|



***Frequent adjustments increase energy use.***

|   |                       |                       |
|---|-----------------------|-----------------------|
| Do you use portable, window, box style or ceiling fans to avoid using your air conditioner? | <input type="radio"/> | <input type="radio"/> |
|---|-----------------------|-----------------------|



***Fans work by moving air around, speeding up the rate perspiration evaporates from your skin making you feel cooler. Fans generally use much less electricity than air conditioners.***

|                 |                          |                          |
|-----------------|--------------------------|--------------------------|
| <b>Subtotal</b> | <input type="checkbox"/> | <input type="checkbox"/> |
|-----------------|--------------------------|--------------------------|



|   | <b>Applies<br/>(✓)</b>   | <b>Answer<br/>(Y/N)</b>  |
|---|--------------------------|--------------------------|
| <b>Personal Preferences</b>   |                          |                          |
| In the summer, do you open windows during the evening to let cool air in and hot air out?             | <input type="radio"/>    | <input type="radio"/>    |
| Are drapes, blinds and windows kept closed during hot summer days and cold winter nights?             | <input type="radio"/>    | <input type="radio"/>    |
| Are appliances and lights used in early morning or late evening to avoid the energy rush hour (peak)? | <input type="radio"/>    | <input type="radio"/>    |
| Do you wear a sweater and turn down the thermostat to avoid raising your heating costs?               | <input type="radio"/>    | <input type="radio"/>    |
| <b>Subtotal</b>   | <input type="checkbox"/> | <input type="checkbox"/> |

|  |  |
|--|--|
| <b>Maximum Whole House Score</b><br>(Total "Applies" column) |  |
| <b>Your Whole House Score</b><br>(Total "Yes" answers)       |  |

*Transfer "Whole House" Scores to page 40*

# How Did You Do?

Wow! You've just completed a comprehensive energy audit of your home and yard. Now, to compare the efficiency of your home to other homes, convert your scores to percentages.

Transfer **Maximum Score** and **Your Score** for each room to the spaces below and then add them up. Calculate percentages for each room by dividing **Your Score** by the **Maximum Score**.

For example:

$$\frac{\text{Your Entranceway Score (2)}}{\text{Maximum Entranceway Score (4)}} = .50 = 50\%$$

To determine your household energy score divide the total of all **Your Scores** by the total of all your **Maximum Scores**. Compare your percentages to the guidelines on the following page to see how efficient your household is.

|                               | <b>Maximum Score</b><br><small>Total "Applies" column</small> | <b>Your Score</b><br><small>Total "Yes" answers</small> | <b>%</b> |
|-------------------------------|---|---|----------|
| Entranceway total             | _____   | _____   | _____    |
| Bathroom total                | _____   | _____   | _____    |
| Bedrooms total                | _____   | _____   | _____    |
| Home Office total             | _____   | _____   | _____    |
| Family Room total             | _____   | _____   | _____    |
| Living/Dining Room total      | _____   | _____   | _____    |
| Kitchen total                 | _____   | _____   | _____    |
| Laundry/Utility Room total    | _____   | _____   | _____    |
| Outdoors/Garage total         | _____   | _____   | _____    |
| Whole House total             | _____   | _____   | _____    |
| <b>Household Energy Score</b> | _____   | _____   | _____    |



## Scorecard Guidelines

|           |  |
|-----------|--|
| 76%+      | You're very energy efficient! Keep it up!  |
| 61-75%    | You're doing okay but you could save some money by trying a few new energy-efficient ideas!  |
| 41-60%    | You're trying but need to do a lot more towards reducing your energy consumption.  |
| 31-40%    | You need to begin actively reducing energy consumption – and make it a habit – before it's too late!                               |
| Below 30% | You have real opportunities to save! Keep on reading for information on where and how to start reducing energy costs in your home. |

## A Closer Look

By categorizing rooms into eight sections (Heating System, Home Design, Appliances, Lighting, Specialty Items, Water Use, Personal Preferences, Vehicle Plug-Ins) you can identify the areas/technologies in your home that could use improvement. For example, add the subtotals for the “Applies” and “Answer” columns for the Lighting sections in each room to determine the **Maximum Score** and **Your Score**. Write them in the spaces on the next page. Divide **Your Lighting Score** by the **Maximum Lighting Score** to determine your percentage rating. Do this for each section. The sections with the lowest percentage ratings are where you should begin looking for energy savings. Read on for some help in getting started.

# How Did You Do? cont'd

## Home Action Plan

|                      | <b>Maximum Score</b><br><i>Total "Applies" column</i> | <b>Your Score</b><br><i>Total "Yes" answers</i> | <b>%</b> |
|----------------------|---|---|----------|
| Heating System       | _____   | _____   | _____    |
| Home Design          | _____   | _____   | _____    |
| Appliances           | _____   | _____   | _____    |
| Lighting             | _____   | _____   | _____    |
| Specialty Items      | _____   | _____   | _____    |
| Water Use            | _____   | _____   | _____    |
| Personal Preferences | _____   | _____   | _____    |
| Vehicle Plug-Ins     | _____   | _____   | _____    |

### Take Action Now

Some easy ways to reduce energy consumption and costs:

1. If it's not in use, switch it off, close it, turn it down.
2. Insulate and ventilate your home.
3. Keep your home, equipment and appliances well maintained.
4. Purchase new major appliances with low kW.h ratings on the EnerGuide labels.
5. Use the smallest appliance possible to prepare and cook food.
6. Change to energy-efficient bulbs, like compact fluorescents.
7. Use timers.
8. Don't leave your car plugged in all night.
9. Close the drapes, blinds and windows during hot summer days and cold winter nights.

