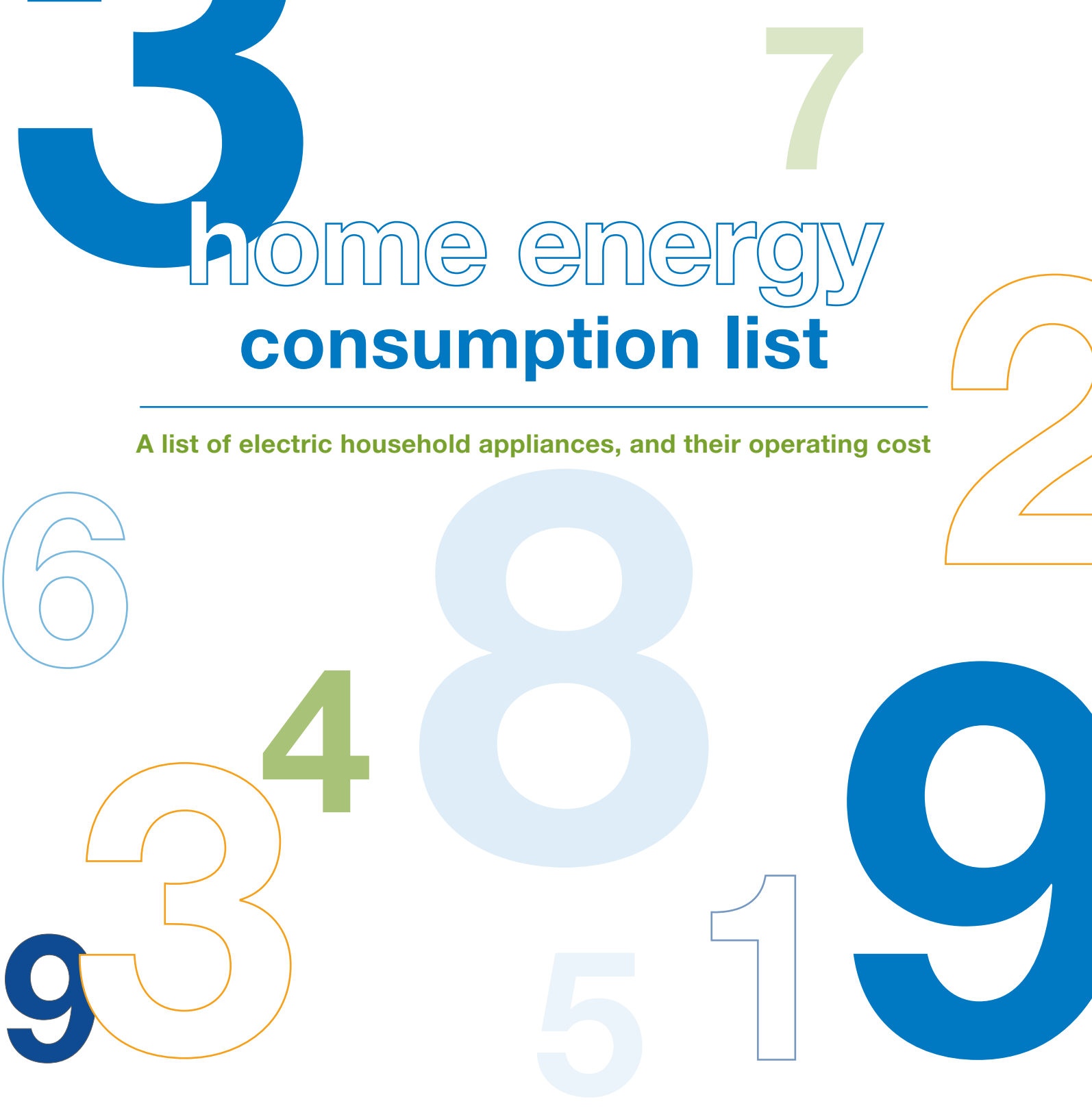
home energy consumption list

A list of electric household appliances, and their operating cost



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Helping Northerners make wise electricity choices

by the numbers:
electricity consumption

How much electricity do appliances and devices use?

Determine the wattage of each device and use this formula to calculate the cost per month:

Watts/1,000 x hours/day x days/month = kWh/month
kWh/month x $/kWh = $/month

For example, to determine the monthly cost of a 60 watt light bulb that is operated for eight hours each day, the calculation would be:

60W/1,000 x 8 hours/day x 30 days/month = 14.4 kWh/month
14.4 kWh/month x $0.30/kWh = $4.32

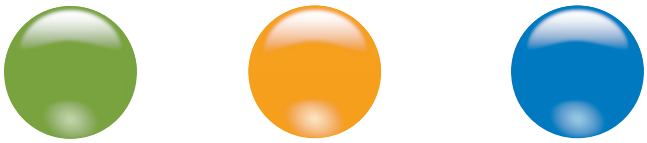
Your 60 watt light bulb is costing you $4.32 per month to operate for eight hours a day.

This formula will work for most household items that will draw the same amount of power 100% of the time. However, it does not apply to items that cycle, or draw different amounts of electricity at different times, such as a refrigerator. If you have any questions relating to an appliance's energy usage, please contact our office in Yellowknife at **867-873-4865,** or our office in Hay River at **867-874-6879 (toll-free: 1-800-264-5313).**

Following is a breakdown of common appliances and devices in your home and their typical usage and cost. The operating cost is based on $0.30 per kWh and an average amount of time the appliance or device is used. This information is meant as a guideline only. For a more exact calculation, use the above formula with exact cost and usage data.

Watt (W): measure of energy
1,000 watts = 1 kilowatt (kW)

Kilowatt hour (kWh): measure of electrical energy used over a period of time.



hourly **12 hours** **monthly**

*energy rates may fluctuate monthly, which could result in increased or decreased operating costs

kitchen

item	kW per hour use	hourly cost
blender (counter-top)	0.7	$0.21
blender (hand-held)	0.2	$0.06
bread maker	0.7	$0.21
coffee maker (brewing 12-14 cup)	1.0	$0.30
corn popper	1.2	$0.36
deep fryer	1.5	$0.45
food processor (9-12 cup)	0.6	$0.18
garbage disposal	1.0	$0.30
indoor grill/griddle	1.6	$0.48
kettle (1.2-1.8 litres)	1.5	$0.45
microwave (cooking)	1.4	$0.42
mixer (hand)	0.2	$0.06
mixer (counter-top)	0.4	$0.12
range (element)		
large element	2.4	$0.72
small element	1.3	$0.39
rice cooker	0.6	$0.18
slow cooker		
low setting	0.1	$0.03
high setting	0.2	$0.06
toaster (2 slice)	1.0	$0.30
toaster (4 slice)	1.5	$0.45
toaster oven (cooking)	1.5	$0.45
waffle iron	1.2	$0.36

item	monthly kWh use	monthly cost
dishwasher		
based on 18 loads per month		
standard (1997)	54	$16.20
standard (2010)	30	$9.00
ENERGY STAR® (2010)	25	$7.50
range (oven)		
self-cleaning (1997)	63	$18.90
self-cleaning (2010)	44	$13.20

hourly 12 hours monthly

kitchen continued

item	monthly kWh use	monthly cost
refrigerator		
side-by-side (1997)	75	$22.50
top-mounted (1997)	55	$16.50
side-by-side (ENERGY STAR - 2010)	43	$12.90
bottom-mounted (ENERGY STAR - 2010)	38	$11.40
top-mounted (ENERGY STAR - 2010)	32	$9.60

"top-mounted" = freezer on top, "bottom-mounted" = freezer on bottom

water cooler		
cold only	15	$4.50
hot/cold	19	$5.70
wine cooler	25	$7.50

living room

item	kW per hour use	hourly cost
Blu-ray™ player (playing movie)	0.02	<$0.01
digital picture frame (7"-12")	0.01	<$0.01
DVD player (playing movie)	0.01	<$0.01
mp3 speakers	0.02	<$0.01
receiver		
200W	0.2	$0.06
600W	0.6	$0.18
1000W	1.0	$0.30
stereo	0.1	$0.03
sub woofer	0.2	$0.06

item	monthly kWh use	monthly cost
aquarium	19	$5.70
television		
based on television on for 5 hrs/day		
projection tv (65")	32	$9.60
CRT (old style tv – 30" - 36")	20	$6.00
light emitting diode (LED - 46")	16	$4.80
liquid crystal display (LCD - 42")	15	$4.50
plasma (42")	15	$4.50

hourly 12 hours monthly

living room continued

item	monthly kWh use	monthly cost
television boxes		
PVR (1 hr/day)	27	$8.10
digital cable with PVR (4hrs/day – TV, 1 hr/day – recording)	36	$10.80
digital cable (5 hrs/day)	19	$5.70
satellite with PVR (4hrs/day – TV, 1 hr/day – recording)	21	$6.30
satellite (5 hrs/day)	12	$3.60
video game console *based on video game console on for 5 hrs/day*		
PlayStation 3®	30	$9.00
Xbox 360®	28	$8.40
Nintendo Wii®	3	$0.90

bedroom

item	kW per hour use	hourly cost
electric blanket	0.2	$0.06
electric heating pad	0.06	$0.02

item	monthly kWh use	monthly cost
alarm clock	3.6	$1.08

bathroom

item	kW per hour use	hourly cost
curling iron	0.08	$0.02
flat iron	0.14	$0.04
hair dryer	1.8	$0.54
jetted tub	0.8	$0.24
shaver (charging)	0.003	<$0.01
toothbrush (charging)	0.002	<$0.01

laundry

item	kW per hour use	hourly cost
iron	1.1	$0.33
steamer	1.4	$0.42

item	monthly kWh use	monthly cost
clothes dryer		
based on 35 loads per month	76	$22.80
washing machine		
based on 33 loads per month		
top load (1997)	78	$23.40
top load (2010)	33	$9.90
front load (ENERGY STAR - 2010)	13	$3.90

office

item	kW per hour use	hourly cost
cell phone charger	0.003	<$0.01
computer printer		
ink jet printer (printing)	0.08	$0.02
ink jet printer (idle)	0.02	<$0.01
laser printer (printing)	0.5	$0.15
laser printer (idle)	0.03	<$0.01
computer speakers	0.004	<$0.01
cordless phone	0.002	<$0.01
cordless phone (with answering machine)	0.004	<$0.01

item	monthly kWh use	monthly cost
computer & LCD monitor		
in use for 2 hours per day, in sleep mode for 22 hours per day		
monitor	2	$0.60
computer	11	$3.30
in use for 2 hours per day, off for 22 hours per day		
monitor	2	$0.60
computer	5	$1.50

hourly 12 hours monthly

lighting

item	12 hour kWh use	12 hour cost
compact fluorescent light (CFL) bulb		
15W (replaces 60W incandescent)	0.18	$0.05
25W (replaces 100W incandescent)	0.3	$0.09
40W (replaces 150W incandescent)	0.48	$0.14
fluorescent tube lighting		
15W	0.18	$0.05
75W	0.9	$0.27
halogen lighting		
50W	0.6	$0.18
150W (exterior floodlight)	1.8	$0.54
holiday lighting		
string of incandescent (50 bulbs/string)	3.0	$0.90
string of LED (70 bulbs/string)	0.04	$0.01
incandescent light bulb		
60W	0.72	$0.22
100W	1.2	$0.36
150W	1.8	$0.54
light emitting diode (LED)		
10.5W (replaces 50W incandescent)	0.13	$0.04
night light		
incandescent	0.06	$0.02
LED	0.004	<$0.01

basement

item	monthly kWh use	monthly cost
deep freezer		
chest (1997)	44	$13.20
chest (2010)	33	$9.90
chest (ENERGY STAR)	30	$9.00
furnace fan		
standard A/C* motor		
continuous operation	274	$82.20
energy-efficient A/C* motor		
continuous operation	201	$60.30
standard A/C* motor		
automatic operation	72	$21.60
variable-speed D/C* motor		
continuous operation	51	$15.30
energy-efficient A/C* motor		
automatic operation	50	$15.00
variable-speed D/C* motor		
automatic operation	41	$12.30
water heater		
mid-efficiency	406	$121.80
high-efficiency	385	$115.50

*D/C = direct current A/C = alternating current

whole house

item	kW per hour use	hourly cost
air purifier	0.09	$0.03
fans		
ceiling fan	0.08	$0.02
ENERGY STAR ceiling fan	0.06	$0.02
ventilation fan	0.08	$0.02
ENERGY STAR ventilation fan	0.03	<$0.01
portable fan	0.05	$0.02

hourly 12 hours monthly

whole house continued

item	kW per hour use	hourly cost
humidifier		
portable	0.06	$0.02
on furnace	0.01	<$0.01
vacuum cleaner		
portable	0.7	$0.21
central	1.4	$0.42

item	monthly kWh use	monthly cost
air freshener	1.8	$0.54
space heater		
1000W for 6 hrs./day	180	$54.00
1000W for 24 hrs./day	720	$216.00
1500W for 6 hrs./day	270	$81.00
1500W for 24 hrs./day	1080	$324.00
2500W for 6 hrs./day	450	$135.00
2500W for 24 hrs./day	1800	$540.00

garage

item	kW per hour use	hourly cost
car block heater		
400W	0.4	$0.12
600W	0.6	$0.18

By plugging in your block heater for only 4 hrs per day instead of 12 hrs, your cost savings could be substantial over the course of the winter season!

	4 hrs per day	12 hrs per day
400W block heater	$14.40/month	$43.20/month
600W block heater	$21.60/month	$64.80/month

hourly 12 hours monthly

garage continued

item	kW per hour use	hourly cost
circular saw	1.2	$0.36
drill	0.3	$0.09
garage door opener	0.4	$0.12
jigsaw	0.3	$0.09
sander	0.3	$0.09
snow blower	1.2	$0.36
table saw	1.4	$0.42

outdoor

item	kW per hour use	hourly cost
edger	0.5	$0.15
hedge trimmer	0.3	$0.09
lawn mower	1.2	$0.36

item	monthly kWh use	monthly cost
hot tub (300 gallons @ 41°C/106°F)		
water heating (indoor)	150	$45.00
water heating (outdoor)	225	$67.50
pumping (1/2 horsepower 8 hrs/day)	132	$39.60
pumping (68% efficient continuous)	395	$118.50

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