

home energy consumption list

A list of electric household appliances, and their operating cost



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Helping Albertans make wise energy 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:

$$\begin{aligned} \text{Watts}/1,000 \times \text{hours/day} \times \text{days/month} &= \text{kWh/month} \\ \text{kWh/month} \times \text{\$/kWh} &= \text{\$/month} \end{aligned}$$

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:

$$\begin{aligned} 60\text{W}/1,000 \times 8 \text{ hours/day} \times 30 \text{ days/month} &= 14.4 \text{ kWh/month} \\ 14.4 \text{ kWh/month} \times \$0.11/\text{kWh} &= \$1.584 \end{aligned}$$

Your 60 watt light bulb is costing you \$1.58 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 us toll-free at **310-SAVE (7283)**.

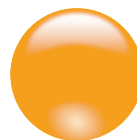
Following is a breakdown of common appliances and devices in your home and their typical usage and cost. The operating cost is based on \$0.11 per kWh and an average amount of time the appliance or device is used. This information is meant as a guideline only. For a more exact calculation, use the above 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	\$0.08
● blender (hand-held)	0.2	\$0.02
● bread maker	0.7	\$0.08
● coffee maker (brewing 12-14 cup)	1.0	\$0.11
● corn popper	1.2	\$0.13
● deep fryer	1.5	\$0.17
● food processor (9-12 cup)	0.6	\$0.07
● garbage disposal	1.0	\$0.11
● indoor grill/griddle	1.6	\$0.18
● kettle (1.2-1.8 litres)	1.5	\$0.17
● microwave (cooking)	1.4	\$0.15
● mixer (hand)	0.2	\$0.02
● mixer (counter-top)	0.4	\$0.04
● range (element)		
large element	2.4	\$0.26
small element	1.3	\$0.14
● rice cooker	0.6	\$0.07
● slow cooker		
low setting	0.1	\$0.01
high setting	0.2	\$0.02
● toaster (2 slice)	1.0	\$0.11
● toaster (4 slice)	1.5	\$0.17
● toaster oven (cooking)	1.5	\$0.17
● waffle iron	1.2	\$0.13
item	monthly kWh use	monthly cost
● dishwasher		
<i>based on 18 loads per month</i>		
standard (1997)	54	\$5.94
standard (2010)	30	\$3.30
ENERGY STAR® (2010)	25	\$2.75
● range (oven)		
self-cleaning (1997)	63	\$6.93
self-cleaning (2010)	44	\$4.84

● hourly ● 12 hours ● monthly

kitchen continued



refrigerator

side-by-side (1997)	75	\$8.25
top-mounted (1997)	55	\$6.05
side-by-side (ENERGY STAR - 2010)	43	\$4.73
bottom-mounted (ENERGY STAR - 2010)	38	\$4.18
top-mounted (ENERGY STAR - 2010)	32	\$3.52

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



water cooler

cold only	15	\$1.65
hot/cold	19	\$2.09



wine cooler

25	\$2.75
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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

\$0.02

600W

0.6

\$0.07

1000W

1.0

\$0.11



stereo

0.1

\$0.01



sub woofer

0.2

\$0.02



item

monthly kWh use

monthly cost



aquarium

19

\$2.09

television

based on television on for 5 hrs/day

projection tv (65")

32

\$3.52

CRT (old style tv – 30" - 36")

20

\$2.20

light emitting diode (LED - 46")

16

\$1.76

liquid crystal display (LCD - 42")

15

\$1.65

plasma (42")

15

\$1.65

livingroom continued



television boxes

PVR (1 hr/day)	27	\$2.97
digital cable with PVR (4hrs/day – TV, 1 hr/day – recording)	32	\$3.52
digital cable (5 hrs/day)	19	\$2.09
satellite with PVR (4hrs/day – TV, 1 hr/day – recording)	21	\$2.31
satellite (5 hrs/day)	12	\$1.32



video game console

based on video game console on for 5 hrs/day

PlayStation 3®	30	\$3.30
Xbox 360®	28	\$3.08
Nintendo Wii®	3	\$0.33

bedroom



item

kW per hour use

hourly cost



electric blanket

0.2

\$0.02



electric heating pad

0.06

\$0.01



item

monthly kWh use

monthly cost

alarm clock

3.6

\$0.40

bathroom



item

kW per hour use

hourly cost



curling iron

0.08

\$0.01



flat iron

0.14

\$0.02



hair dryer

1.8

\$0.20



jetted tub

0.8

\$0.09



shaver (charging)

0.003

<\$0.01



toothbrush (charging)

0.002

<\$0.01

laundry

item	kW per hour use	hourly cost
● iron	1.1	\$0.12
● steamer	1.4	\$0.15
item	monthly kWh use	monthly cost
● clothes dryer <i>based on 35 loads per month</i>	76	\$8.36
● washing machine <i>based on 33 loads per month</i>		
top load (1997)	78	\$8.58
top load (2010)	33	\$3.63
front load (ENERGY STAR - 2010)	13	\$1.43

office

item	kW per hour use	hourly cost
● cell phone charger	0.003	<\$0.01
● computer printer		
ink jet printer (printing)	0.08	\$0.01
ink jet printer (idle)	0.02	<\$0.01
laser printer (printing)	0.5	\$0.06
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 <i>in use for 2 hours per day, in sleep mode for 22 hours per day</i>		
monitor	2	\$0.20
computer	11	\$1.21
<i>in use for 2 hours per day, off for 22 hours per day</i>		
monitor	2	\$0.20
computer	5	\$0.55

lighting

item	12 hour kWh use	12 hour cost
compact fluorescent light (CFL) bulb		
15W (replaces 60W incandescent)	0.18	\$0.02
25W (replaces 100W incandescent)	0.3	\$0.03
40W (replaces 150W incandescent)	0.48	\$0.05
fluorescent tube lighting		
15W	0.18	\$0.02
75W	0.9	\$0.10
halogen lighting		
50W	0.6	\$0.07
150W (exterior floodlight)	1.8	\$0.20
holiday lighting		
string of incandescent (50 bulbs/string)	3.0	\$0.33
string of LED (70 bulbs/string)	0.04	<\$0.01
incandescent light bulb		
60W	0.72	\$0.08
100W	1.2	\$0.13
150W	1.8	\$0.20
light emitting diode (LED)		
10.5W (replaces 50W incandescent)	0.13	\$0.01
night light		
incandescent	0.06	\$0.01
LED	0.004	<\$0.01

[How much will CFL bulbs save you?](#)

[What CFL wattage replaces my incandescent light bulb?](#)

basement

item	monthly kWh use	monthly cost
deep freezer		
chest (1997)	44	\$4.84
chest (2010)	33	\$3.63
chest (ENERGY STAR)	30	\$3.30
furnace fan		
standard A/C* motor		
continuous operation	274	\$30.14
energy-efficient A/C* motor		
continuous operation	201	\$22.11
standard A/C* motor		
automatic operation	72	\$7.92
variable-speed D/C* motor		
continuous operation	51	\$5.61
energy-efficient A/C* motor		
automatic operation	50	\$5.50
variable-speed D/C* motor		
automatic operation	41	\$4.51
* D/C = direct current A/C = alternating current		
water heater		
mid-efficiency	406	\$44.66
high-efficiency	385	\$42.35

whole house

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

whole house
continued



humidifier

portable	0.06	\$0.01
on furnace	0.01	<\$0.01



vacuum cleaner

portable	0.7	\$0.08
central	1.4	\$0.15

item

monthly kWh use

monthly cost



air conditioner (central)

based on air conditioning on for 30 hrs/month

24,000 British thermal units (BTU)

mid-efficient	55	\$6.05
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48,000 BTU

mid-efficient	110	\$12.10
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air conditioner (room)

based on air conditioning on for 30 hrs/month

8,000 BTU

mid-efficient	27	\$2.97
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12,000 BTU

mid-efficient	41	\$4.51
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air freshener

1.8	\$0.20
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space heater

1000W for 6 hrs./day	180	\$19.80
1000W for 24 hrs./day	720	\$79.20
2500W for 6 hrs./day	450	\$49.50
2500W for 24 hrs./day	1800	\$198.00

garage

item	kW per hour use	hourly cost
car block heater		
400W	0.4	\$0.04
600W	0.6	\$0.07

By plugging in your block heater for only 2 hrs per day instead of 12 hrs, your cost savings could be substantial over the course of the winter season!

	2 hrs per day	12 hrs per day
400W block heater	\$2.64/month	\$15.84/month
600W block heater	\$3.96/month	\$23.76/month

circular saw	1.2	\$0.13
drill	0.3	\$0.03
garage door opener	0.4	\$0.04
jigsaw	0.3	\$0.03
sander	0.3	\$0.03
snow blower	1.2	\$0.13
table saw	1.4	\$0.15

outdoor

item	kW per hour use	hourly cost
edger	0.5	\$0.06
hedge trimmer	0.3	\$0.03
lawn mower	1.2	\$0.13

item	monthly kWh use	monthly cost
hot tub (300 gallons @ 41°C/106°F)		
water heating (indoor)	150	\$16.50
water heating (outdoor)	225	\$24.75
pumping (1/2 horsepower 8 hrs/day)	132	\$14.52
pumping (68% efficient continuous)	395	\$43.45

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Didn't find what you were looking for? Our team of dedicated professionals is ready and waiting to assist you with your energy efficiency questions.

Have we piqued your interest? Download our [*Managing Electricity at Home* booklet](#) to learn more about reducing your electricity use. This booklet includes information on everything from stand-by power to peak load hours.

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In Alberta, call us toll-free at 310-SAVE (7283).



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