home energy consumption list

A list of electric household appliances, and their operating cost

ATCO EnergySense

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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:

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:

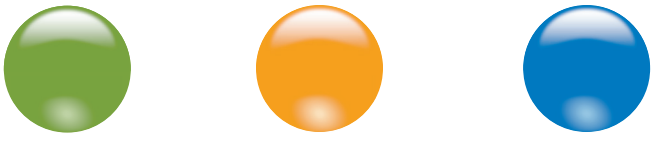
60W/1,000 x 8 hours/day x 30 days/month = 14.4 kWh/month
14.4 kWh/month x $0.11/kWh = $1.584

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.

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 power
1,000 watts = 1 kilowatt (kW)
1 Kilowatt hour (kWh): measure of 1 kW over a period of 1 hour.



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

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

item	kWh 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		
based on 18 loads per month		
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

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

living room

item	kWh 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

hourly 12 hours monthly

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	kWh 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	kWh 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	kWh per hour use	hourly cost
iron	1.1	$0.12
steamer	1.4	$0.15

item	monthly kWh use	monthly cost
clothes dryer		
based on 35 loads per month	77	$8.51
washing machine		
based on 33 loads per month		
top load (1997)	78	$8.58
top load (2010)	33	$3.63
front load (ENERGY STAR - 2010)	13	$1.43

office

item	kWh 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		
in use for 2 hours per day, in sleep mode for 22 hours per day		
monitor	2	$0.20
computer	11	$1.21
in use for 2 hours per day, off for 22 hours per day		
monitor	2	$0.20
computer	5	$0.55

hourly 12 hours monthly

lighting

item	12 hour kWh use	12 hour cost
compact fluorescent light (CFL) bulb		
15W (replaces 60W incandescent)	0.18	$0.02
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)		
6W (replaces 40W incandescent)	0.08	$0.009
10W (replaces 60W incandescent)	0.12	$0.01
night light		
incandescent	0.06	$0.01
LED	0.004	<$0.01

To determine the CFL or LED wattage to replace your incandescent bulb with, visit **ATCO**EnergySense.com/CFLwattage.

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
water heater		
mid-efficiency	389	$42.81
high-efficiency	371	$40.77

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

whole house

item	kWh 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

hourly 12 hours monthly

item	monthly kWh use	monthly cost
humidifier		
portable	0.06	$0.01
on furnace	0.01	<$0.01
vacuum cleaner		
portable	0.7	$0.08
central	1.4	$0.15
air conditioner (central) *based on air conditioning on for 30 hrs/month*		
24,000 British thermal units (BTU)		
mid-efficient	55	$6.05
48,000 BTU		
mid-efficient	110	$12.10
air conditioner (room) *based on air conditioning on for 30 hrs/month*		
8,000 BTU		
mid-efficient	27	$2.97
12,000 BTU		
mid-efficient	41	$4.51
air freshener	1.8	$0.20
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	kWh 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

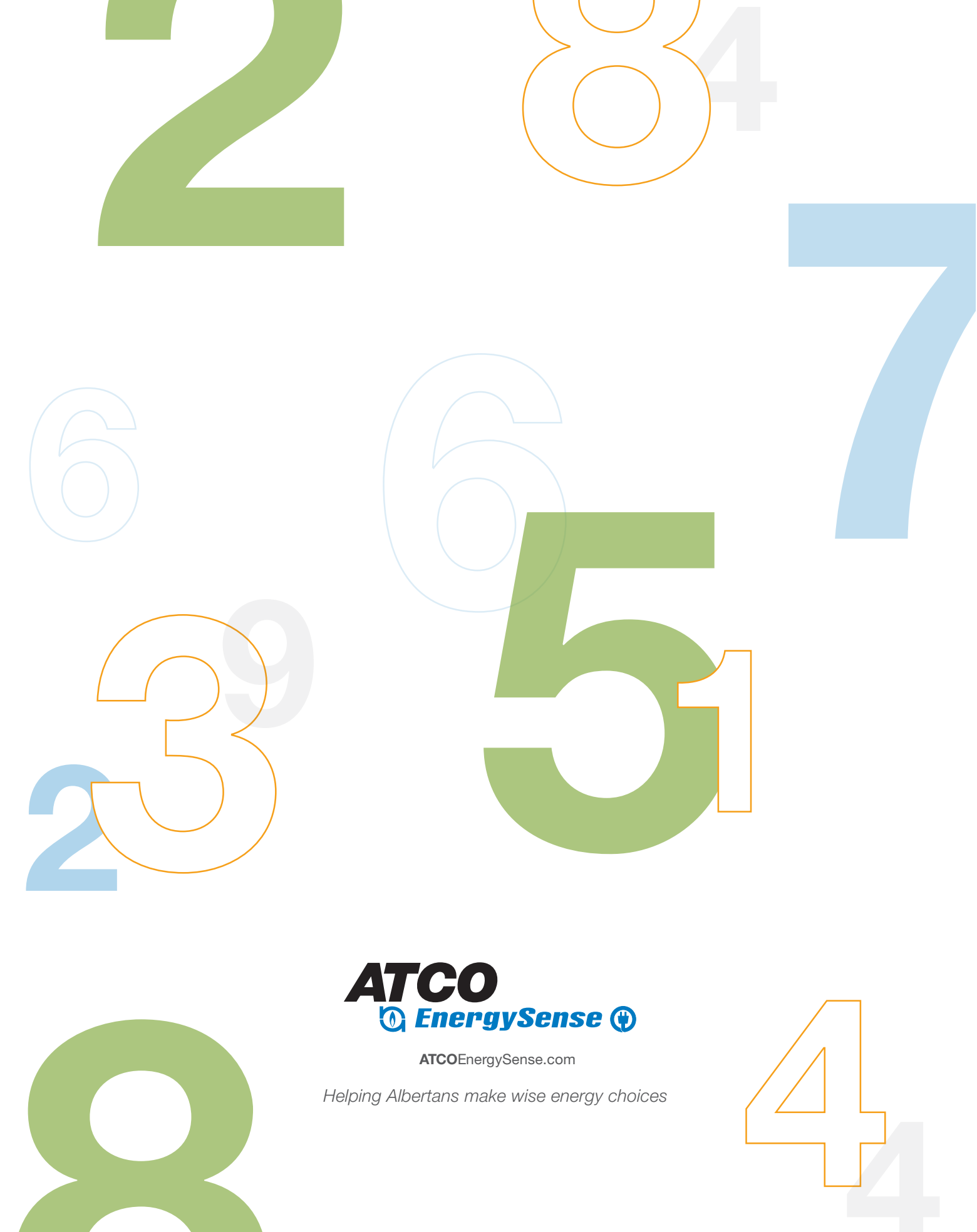
circular saw	1.2	$0.13
drill	0.3	$0.03
garage door opener	0.4	$0.04
jigsaw	0.3	$0.03
sander	0.3	$0.03
snow blower	1.2	$0.13
table saw	1.4	$0.15

outdoor

item	kWh 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

hourly 12 hours monthly



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