

DOMESTIC WATER HEATING FUEL COST COMPARISONS - July 2010

Fuel & Appliances	Average seasonal efficiency	\$/cubic metre of hot water (All taxes incl. 8% HST rebate avail.)	Typical household annual hot water costs \$			Average GHG (CO ₂ eq.) emissions per year		
			Two person (120 litres/day)	Four person (240 litres/day)	Six person (360 litres/day)	Two person (120 litres/day)	Four person (240 litres/day)	
Electricity								
Electric water heater - old	85%	\$8.14	\$357	\$713	\$1,070	2.22	4.45	
Electric water heater - new	90%	\$7.69	\$337	\$674	\$1,010	2.10	4.20	
Time of use - new*	90%	\$3.93	\$172	\$344	\$516	2.10	4.20	
Instantaneous heater	95%	\$7.28	\$319	\$638	\$957	1.99	3.98	
Natural Gas								
Stand alone heater - conventional	55%	\$4.60	\$201	\$403	\$604	0.76	1.52	
Stand alone/instantaneous heater - high efficiency	93%	\$2.72	\$119	\$238	\$357	0.45	0.90	
Indirect tank (with cold start high efficiency boiler)	Winter	90%	\$2.81	\$126	\$252	\$378	0.46	0.92
	Summer	85%	\$2.97					
Oil								
Stand alone water heater	55%	\$7.98	\$349	\$699	\$1,048	1.13	2.26	
Tankless coil	Winter	75%	\$5.85	\$470	\$940	\$1,409	1.52	3.04
	Summer	25%	\$17.55					
Indirect tank (with cold start high efficiency boiler)	Winter	75%	\$5.85	\$283	\$566	\$849	0.92	1.83
	Summer	60%	\$7.31					
Propane								
Stand alone water heater	55%	\$11.88	\$520	\$1,040	\$1,560	0.89	1.79	
Stand alone/instantaneous heater - high efficiency	93%	\$7.02	\$308	\$615	\$923	0.53	1.06	

Assumptions:				
Fuel Type	Unit of Fuel (Btu's per unit)	Cost Per Unit before HST	Additional costs (not in estimates above)	Other cons
Electricity	3412 Btu / kilowatt hour	\$0.11796	Annual base cost of \$129.96	n/
Electricity (time of day metered)	3412 Btu / kilowatt hour	\$0.06028	Annual base cost of \$225.84	Cost per unit \$0.11796 or \$0.06028 water at times peak
Natural Gas	947,817 Btu / Gigajoule	\$11.97	Annual base cost of \$216.00	Cost per unit municipi
Oil	36,500 Btu / Litre	\$0.796	Fuel tank	n/
Propane	24,300 Btu / Litre	\$0.79	Fuel tank	n/

* Assumes water heater operates only during off-peak hours. Costs will increase if you manually over ride to allow for heating water during standard-rate or peak Nova Scotia Power Inc. rate structure for complete details on time-of-use rates.

- ▶ Price vary according to supplier, location, and discount structures.
 - ▶ Costs are for fuel only! Equipment, maintenance costs, delivery / shipping, tank rentals and parasitic losses are not included in these calculations.
 - ▶ CO₂ estimates do not include transportation of fuels or refining emissions that may occur earlier on.
 - ▶ Water use is an average. Higher water usage, hot tubs etc., will significantly increase costs.
 - ▶ Assumed water temperature rise is 44.5 degrees C.
 - ▶ For water heated by space heating boiler, it is assumed it also supplies space heat for seven months of the year.
- ▶ **Adding a solar hot water system can provide 40%-60% of your domestic hot water needs.**

Conserve Nova Scotia - 424-3795

ions in tonnes

**Six person
(360 litres/day)**

6.67

6.30

6.30

5.97

2.28

1.35

1.38

3.39

4.56

2.75

2.68

1.59

iderations

'a

could also be

.1532 if heating

other than off-

hours

includes 5%

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ak-hours. See