

Clean Pool, Clean Air

It's great to escape to a swimming pool on a hot, smoggy day, but did you know that this same pool can contribute significantly to smog and climate change? Pools can use an enormous amount of electricity (generated by smog-producing coal in Ontario) and other types of energy, but there are easy, inexpensive ways to reduce the impact.

Pool pumps draw 1000-3000 watts of electricity -like turning on all the lights in a typical house. Some people run them 24 hours a day, all swimming season. This can double your hydro bill for the summer and is totally unnecessary. I know several pool owners who have installed outdoor timers on their pump motors to shut them down overnight. According to Caledon resident Ray Cowan, who has a beautiful, clear pool, if you use a solar blanket (pool cover) you can shut the motor off up to 20 hours a day without needing more chemicals. There are more precise electronic timer systems that can be professionally installed. Accessories like fountains and lights should be on timers too. A \$25 timer can save you \$100-\$300 annually and, as a bonus, your yard will be quieter.

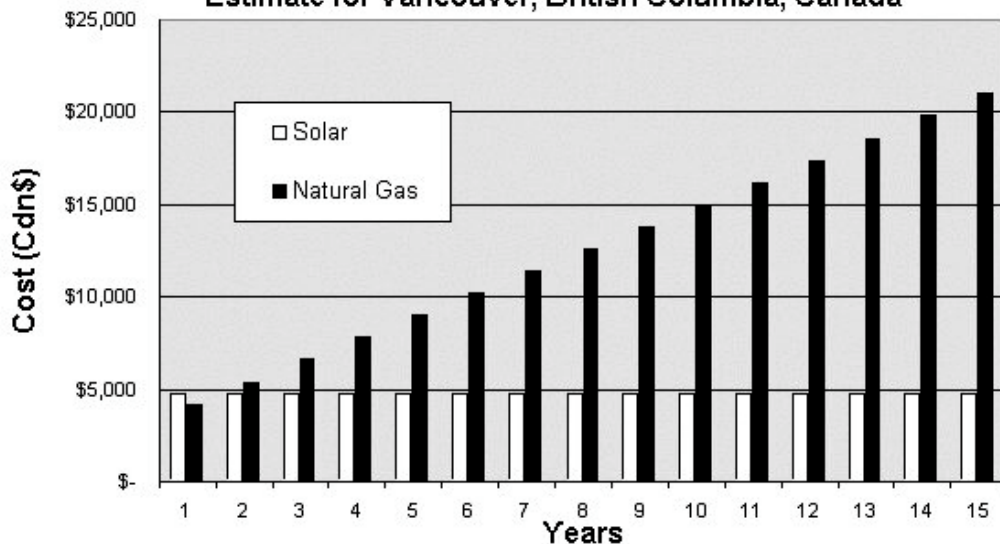
Another option, according to Richard Minderlein at Leader Pools, is a 2-speed motor that runs on the lower speed overnight. These motors draw 1000-3000 W on the high speed, but pump half the water at 1/6 the power when running on lower speed. They are much quieter and work well with automatic pool cleaners. High efficiency pumps provide another alternative. For example, a 3/4 HP Northstar unit pumps more water than a standard 1½ HP pump and uses 13% less power. A 2-speed motor costs about \$200 more, but saves you \$70-\$210 per year.

Using either a timer or a 2-speed motor will meet your personal Kyoto target for greenhouse gas reduction, preventing 1-4 tonnes of carbon dioxide (CO₂) emissions.

Building a new pool? Minderlein suggests using 2-inch plumbing for substantial savings over the long term, as the water moves easily and the pump works less hard. A timer control system can be installed at the same time.

Cost of Solar vs. Natural Gas (New Gas Heater)

Estimate for Vancouver, British Columbia, Canada*



*Based on a natural gas cost of \$10.22 per gigajoule, a gas heater installation cost of \$3,000.00, gas heater efficiency of 80%, and May through September pool use.

Pool heaters use a huge amount of energy, often more than your furnace. A typical pool uses \$1000 of gas for heating throughout the season, producing a whopping 5 tonnes of CO2 emissions, as well as other pollutants. Old gas or propane pool heaters were only 55% efficient, but newer, high efficiency heaters with electronic ignition can be 90% efficient and save up to 45% of your heating costs. The Hayward IDL is one of two heaters on the market that exceed California emission standards. Using a high efficiency heater can reduce CO2 emissions by 3 tonnes/year -three times your personal Kyoto target. Another excellent option is to install a heat pump system. Although more expensive than gas to purchase, running a gas line can be very costly.

A solar blanket costs \$100-200 and can save 50-75% of pool heating costs -about \$750 saved annually. It will also reduce water loss, save on chemicals, cut down smog emissions, and reduce CO2 emissions by 3 tonnes.

If you really want to save energy, install a solar heating system. These cost around \$2000-5000 but can save you up to \$1000 per year. There is a 2-4 year payback for these systems in Canada. If you are already using a conventional heater, you can add a solar heater to work with it. Many people who do this find it provides ample heat, so they can turn off the conventional heater altogether. For more information visit www.ecomall.com/greenshopping/seiapool2.htm

Installing a darker-coloured pool liner also saves heating costs. Trimming back trees that shade the pool saves energy and reduces leaves in the pool. For more tips on saving money and energy, visit www.swimmingpool.info/pool-heater.html

Step Up To Kyoto. Future generations will thank you a tonne. For more information about this or other topics in the Caledon Clean Air Clean Energy Program, you can reach us at greenenergy@woodrising.com or 519-927-0548, or visit <http://www.woodrising.com/cca/stepup.htm>



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