



**Liberty
Utilities®**

KEY POINTS

- **Pool pump timers can cut energy use in half by operating only 12 hours each day.**
- **Proper water chemistry must be maintained.**
- **Operate the pool pump during the day, then turn off the pump and cover the pool at night to minimize any impact on water quality.**

Find out what incentives are available for your home or business. Energy Efficiency 603-216-3698 NHSaves@LibertyUtilities.com or visit NHSaves.com

Lowering Pool Pump Energy Use

Pool pumps can contribute a significant amount to the homeowner energy bill. This should not be surprising, since the pool pump has a good size motor that is left to operate around the clock for the entire pool season. In NH, a typical 1 hp pool pump motor that operates 24 hours per day will consume just over

615 kWh each month. At \$0.17/kWh, this can amount to a monthly contribution of just over \$100 to your electric bill. You can cut this cost in half with the installation of a timer that operates the pump only 12 hours each day. Studies have shown that this can be accomplished without comprising pool water quality, as long as the proper water chemistry is maintained. Some pool owners operate their pool pumps for only 8 hours per day, but an even more careful eye must be kept on water chemistry. One helpful tip is to operate the pool pump during the day, then turn off the pump and cover the pool at night to minimize any impact on water quality.

There are also variable speed pumps, and some efficiency may be gained by replacing a single-speed pool pump with a new two-speed or variable speed pool pump. There is, however, a price premium of 20% to 50% compared to the cost of a conventional fixed-speed pool pump. This strategy also seems to favor larger pools that have pumps greater than 1.5 hp. If, for example, a pool required a 3 hp pump motor, a variable speed or two-speed pump that could run efficiently at 1.5 hp and save energy when the pool is not occupied. The number of pool water changes per day determines the size of the pool pump. If more than one pool water change per day occurs with a larger fixed speed pump, then a two-speed or variable speed pump could save energy.

Pool pump suppliers have tables that calculate the required pool pump capacity (described in horsepower, gallons per minute, and a term called “head” that represents how far a pump can raise a quantity of water), water volume, and pool water changes based



Source: Electricity Local



You can the cost of running a pool pump motor in half with the installation of a timer that operates the pump only 12 hours each day.

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- may fund a portion of the cost of an energy audit study
- provides incentives on energy savings improvements
- may require pre-approval of the audit and incentives

on the size of the pool. The payback periods for the two-speed or variable speed pumps can also be determined from these tables. Note that at this time, Energy Star ratings are not listed for swimming pool pumps.

You may also want to refer to the EERE Web site to compare [pool pump best operating practices](#), [swimming pool heaters](#), [pool water operating temperatures](#), and the use of [pool covers](#). Pool covers are a good idea even though they are considered a bit of a maintenance hassle. Not only do they significantly lower pool heating energy costs, they also reduce evaporation and lower the amount of chemicals needed to maintain water quality.



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