

# Swimming Pool Energy Costs Down

Contributed by admin  
Monday, 10 November 2008

The days of cheap and affordable energy are long gone. The expense of everyday operations is steadily increasing. It costs more to drive to work, to change the oil in your automobile, to heat and cool your home and business, even your everyday luncheon is costing you more, just to be brief. We all have to take measures to conserve and lower the costs of our everyday living, but how many pool owners have found ways to cut down on their energy costs and consumption when it comes to their pool? Well I just won't start it up this year. I will turn off the heater and limit my swimming to when it doesn't make my teeth chatter.

These, as well as many other tactics have been used to save, but why would you invest so much into something that you are not able to enjoy to its fullest potential? You wouldn't buy a car and just park it in the garage while you make payments on it because the price of fuel is too high. No, you would get rid of it and get something more economical. Well getting rid of your pool costs almost as much as having it built, so why don't you make your pool more economical by adding a swimming pool cover to keep in heat and chemicals and keep out dirt and debris?

Here are a few things to consider:

Evaporation is by far the largest source of energy loss for a swimming pool, in fact, when compared to evaporation, all other losses are small. Evaporation accounts for 70% of heat loss whereas 20% is radiated to the sky and 10% into the ground. With a pool cover in place you can assume a 90% reduction in heat loss.

The Red Cross recommends 78 degrees for optimal water temperature, but just to bump up the temperature to 82 degrees will result in an energy consumption increase of more than 40% in an uncovered pool. A cover acts as a passive solar collector and can increase the temperature of the swimming pool water by 6 to 10 degrees.

When covering a swimming pool when not in use, you can assume approximately a 70% savings which includes but is not limited to the following:

- Reduces the amount of gas or electricity required to heat the pool water
- Reduces the amount of make-up water needed in the pool due to evaporation
- Reduces the amount of electricity required to run the filtering system
- Reduces the amount of chemicals used to sanitize and maintain the pool water
- Reduces the amount of service work on motors and equipment
- Reduces the frequency at which liners and plastering needs to be replaced
- Reduces the use of dehumidifiers on indoor pools

Heat from the swimming pool water is lost through evaporation. Consider the following:

- It only takes 1 BTU to raise 1 lb. of water 1 degree, but every time one pound of 80 degree water evaporates, it takes 1048 BTU's out of the pool water
- The evaporation rate depends on varying degrees of air, heat, shade and wind; as well as water temperature. For example, the higher the pool water temperature and wind speed, and the lower the humidity, the greater the rate of evaporation
- A 7 mph wind at the surface of the pool can increase energy consumption by 300%
- In dry and/or windy conditions the evaporation rate increases. In warm/humid conditions the rate decreases. Using a pool cover can keep these factors in check

Using a pool cover can decrease water usage by decreasing the amount of make -up water needed by 30 to 50%. Other things to consider:

- A 16 ft. by 32 ft. swimming pool can lose 180 gallons of water a week if uncovered.
- Decrease in evaporation means lower water bills
- In some sunny areas, a pool can lose its entire volume of water within a year from evaporation

Because the cover keeps dirt and debris out of the pool, the filtering system doesn't need to operate as long as without a cover in place. There is not as much vacuuming required because there is nothing to vacuum. Because of the decreased time that the filter and pump motors run, they will require less electricity and need less servicing. Chemicals are lost through evaporation of the pool water.

- By using a cover you can reduce chemical consumption by 35 to 60%
- One gallon of chlorine can evaporate in two hours without a cover, but last for up to two weeks with a cover.

By limiting the amount of UV light exposure to the swimming pool you can reduce algae growth. The UV rays are the main culprit in the degradation of pool finishes, whether your pool is plaster, vinyl liner or fiberglass.

As you can see from the information that I have laid down in front of you, the number one way to reduce your pools energy costs and consumption is by having a swimming pool cover in place.