

The path to your own SOLAR ELECTRIC SYSTEM



ENERGY EFFICIENCY AND CONSERVATION

Is the first step towards beating Eskom at its own game:

Energy efficiency and conservation are important first steps on the path to becoming electrically self-sufficient with your own solar electric system. It is simple, if you could reduce your energy requirements by half, you will reduce your electrical bill by half. It will also cut the size and cost of your potential PV solar system in half.

The cost of solar electrical systems is DIRECTLY dependent on the amount of energy you use on a daily basis.

The less you energy you require, the lower your initial investment cost will be.

You could save as much as 40% of your energy budget by just changing your energy habits. Best of all, you don't have to spend a single cent to do this! Like any habit, bad energy habits can be changed. It does require a little effort from your side though! Become energy conscious and modify your use patterns. Switch off appliances that are not in use.

How much energy do you use on a daily basis?

Knowing how much energy you consume on a daily basis will make you energy aware and lead the way to subsequent energy conservation. This information is critical to establishing the correctly sized Solar PV system for you.

If you are currently using energy that is provided by Eskom or your municipality, there will be an electricity meter installed somewhere. These days, it is mostly a prepaid meter, but some households still have an older revolving disc meter. Regardless of the type of meter you have, do the following to establish your daily energy usage:

1. Write down the number on your meter at a convenient time, say in the evening after work.
2. At the same time the next day (24 hours later), write down the number again.
3. Subtract the two figures from each other.
4. The number you are left with is the amount of units or more correctly, **kilowatt-hours (kWh)** that your household has consumed in a 24 hour period.
5. The lower this number, the lower your electricity bill, the lower the initial investment cost of a solar PV system to suit your requirements
6. This number is the amount of **kWh** that an off grid solar electric system would need to generate on a daily basis.

What numbers to expect? What number to aim for?

The national average daily consumption for a typical household according to Eskom is 36 kWh. Way too high in my humble opinion! My personal house consumes less than 3 kWh per day! I have many clients who are happily living with solar systems producing anything between 3 – 18 kWh per day. Of course larger systems are possible for specific applications.

REMEMBER: The lower your daily energy requirement,

the lower your electricity bill,

the lower the initial investment cost of a subsequent solar electric system.