

10 Steps to reduce your power consumption.

At Emerald Coast Solar we want you to have a system that meets your needs now and in the future. It would be easy to come in and look at your CFE bill and say “you need X sized system” – We would rather pass on what we have learned for reducing power consumption so you can get a smaller system to meet your new power needs.

Here are 10 hints for lowering your bi-monthly power bill and therefore lowering the size of solar system you would need:

- 1) If you have a filtered pool and circulate it often, reduce the amount of time the pump is spent circulating the pool. We suggest cutting back to an hour every three days or so. If you find this is not enough, try 45 minutes every other day. Keep working on as small an increment as possible to get the results you desire. A pool pump will use 1 kilowatt or more per hour of use. 2 hours per day of circulation is equal to the power produced by $1 \frac{1}{2} = 3$ solar panels. It is easy to see how much can be saved by cutting back on pool circulation.
- 2) Stop air conditioning rooms you are not in. It seems obvious but, some people continue to use the AC in every room in the house. AC units use between 1 and 3.5 kilowatts of power per hour for a standard unit. Inverter type ACs use substantially less (if used properly and properly sized for the room they are in). This is the biggest cost for power in the house. The savings by using these units less can be extraordinary.
- 3) Use the dehumidify setting on the AC. Generally, this setting will remove the moisture from the room instead of cooling it. This will make the room feel much cooler and use less power to do so.
- 4) Increase the temperature that you are comfortable with. If it is 30 degrees outside an airconditioned room set to 27 will feel very cool. The higher the temp. you set the AC to run at the less it needs to run to achieve that temperature.
- 5) Pre-cool a room using dehumidify. If you are like us and use a bedroom AC most nights, you can lessen the cost of running the AC by turning it to dehumidify about 30 minutes before going to bed. This will dry the room and cool it at the same time. You can then turn it to cool and go to bed.
- 6) Here is a trick we have learned. Turn off the AC in the room you are using about an hour before going to bed. You can then have the bedroom AC set at a couple of degrees higher than you normally would. Since the room you have been in has slowly been getting hotter, the bedroom will feel nice and cool.
- 7) Where you do use AC a lot (5 or more hours at a time) invest in Inverter AC units. These units will substantially reduce your power use when used for longer periods of time. Be careful however, if you generally use AC for only a couple hours at a time, there is no savings from Inverter type. The savings comes from longer periods of use.

- 8) Turn off lights, fans, and AC when you leave the house. There is no sense in leaving your lights and fans on in an empty house. If the windows are closed the fans will just move hot air around. If the windows are open, then the fans may just bring hot air into the house. 1 ceiling fan running for 24 hours per day will use over 60 kilowatts of power. Having the AC on when no one is home seems self-explanatory. Leaving say 3 lights on will use over 20 kilowatts per billing cycle, using energy efficient bulbs.
- 9) If your AC units are 5 years old or more – replace them. As ACs get older they use more power. As well the new units, even the standard ACs, are far more energy efficient. By just replacing your old units you could reduce the total power used in your home by over 10%. That is 2 less solar panels on a 20-panel system. This savings alone will pay for at least 2 AC units.
- 10) Anyone who has lived in a colder climate knows the value of weather proofing the house. What many people do not realize is the same benefits of keeping the cold out in the winter work for keeping the heat out down here. Caulking around windows and doors, installing door sweeps, filling any holes in the walls that lead outside, all help to reduce the inside temperature and keep the house sealed. Only use white roof protection when sealing the roof. Any other color will absorb the heat and pass it into the house. I know – red was on sale one year – I tried it and the temp inside the house was about 3 degrees more until I went back to white.

Not everyone will be guilty of all of these energy issues. Some may be doing everything correct and more. We kept the list to 10, there are many more but, the article would have been way to long. Some will be guilty of one or two, while others may be guilty of more. The bottom line is, if you can make 5 changes on this list your power bill should go down between at least 10 – 20% maybe more.

With this drop in power, you would need a substantially smaller solar system. For example a 20% savings on average power use = a 4 panel reduction in what would have been a 20 panel system. This would be about a 25% reduction in system cost.

All of these points would make a difference in your power consumption but, would have little to no affect on your comfort level.

At Emerald Coast Solar we want to ensure you get the right sized system for your needs without oversizing and thereby wasting your money.