

HOW MANY PANELS DO I NEED FOR SOLAR?

This is a question that we get asked all the time!

The answer depends on your personal needs, but we can help you figure it out.

First, you should determine how much energy your household consumes per day (**24 hours**).

Secondly—and this is critical—you need to know the amount of power your home uses during nighttime (**15 hours**) in order to calculate exactly how many batteries will be needed for solar-powered usage.

During the winter months, days are shorter and the evenings longer. This means that you will need to take daily meter readings from 5 pm to 8 am - 15 hours of use in the evening for battery calculations

We need this information so that we can give you an accurate quote for the installation of a solar system.

The more information you can provide us with, the better!

How to determine your daily energy consumption.

If you are currently using electricity that is provided by Eskom or your municipality, there will be an electricity meter installed somewhere. Follow the steps below

DAILY ENERGY (24 HOURS)

To determine your daily energy consumption, take the following steps:

1. Write down the number on your meter at a convenient time; say 7 pm in the evening.
2. The next day (24 hours later) at 7 pm, write down the number again.
3. Execute the steps for a period of approximately one week or longer in order to evaluate the average daily power consumption.
4. Add all your meter readings together and divide by the number of days.
5. The number you are left with is the amount of Eskom units or kilowatt-hours (kWh) that your household has consumed in a 24 hour (Daily Energy) period.

BATTERIES (15 HOURS)

(5pm to 8am for winter months)

Take daily meter readings from 5 pm to 8 am - 15 hours of use in the evening.

How to calculate the number of batteries (kWh) required:

1. Write down the number on your meter at 5 pm.
2. The next day (15 hours later) at 8 am, write down the number again.
3. Add all your meter readings together and divide by the number of days.
4. The number you are left with is the amount of kilowatt-hours (kWh) that your household has consumed in a 15-hour (nighttime) period.

DAILY ENERGY

Meter reading for 24 hours

| No | Day | Meter Reading | Units |
|-------|-----------|---------------|--------|
| 1 | Monday | 650.8 | 25.2 |
| 2 | Tuesday | 625.6 | 21.1 |
| 3 | Wednesday | 604.5 | 18.8 |
| 4 | Thursday | 585.7 | 24.08 |
| 5 | Friday | 561.62 | 26 |
| 6 | Saturday | 535.62 | 30.1 |
| 7 | Sunday | 505.52 | 38.4 |
| Total | | | 183.68 |

Total divided by 7 days **26.24**

BATTERIES ENERGY

Meter reading for 15 hours (5pm - 8am)

| No | Day | Meter Reading | Units |
|-------|-----------|---------------|-------|
| 1 | Monday | 640 | 8 |
| 2 | Tuesday | 632 | 7.5 |
| 3 | Wednesday | 624.5 | 5 |
| 4 | Thursday | 619.5 | 5.8 |
| 5 | Friday | 613.7 | 4.5 |
| 6 | Saturday | 609.2 | 6.7 |
| 7 | Sunday | 602.5 | 6.8 |
| Total | | | 44.3 |

Total divided by 7 days **6.32857**

AVERAGE POWER CONSUMPTION PER DAY

| | |
|--------------------|----------|
| Per day (24 hours) | 26.24Kwh |
| Day Time (9 Hours) | 19.91Kwh |
| Evening (15 hours) | 6.33Kwh |

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