

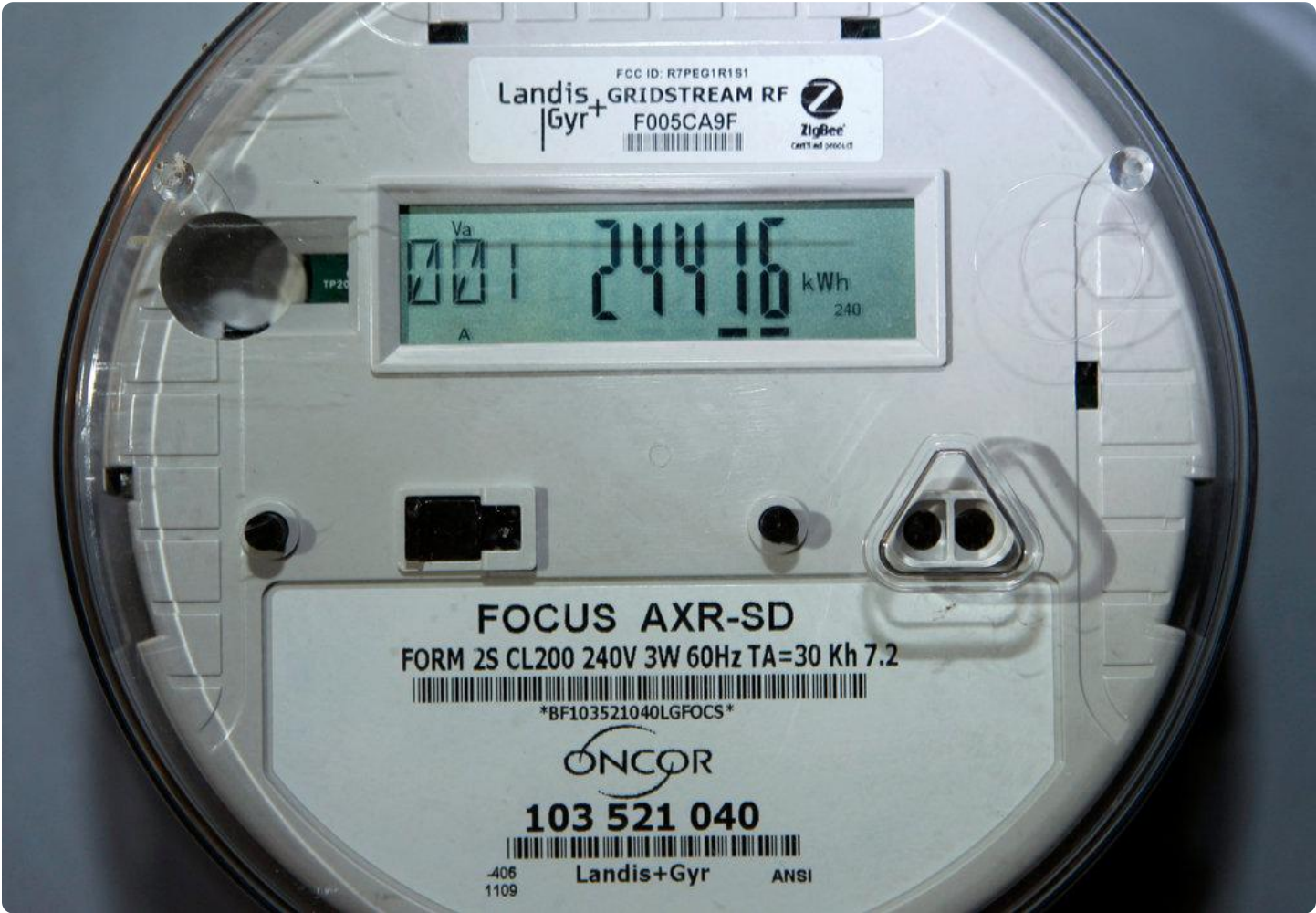
AI-04733 Electric Meter Reading

Create a step by step to read the information from my electric meter. I want to see how much is my consumption and production manually

Yes. Your photo shows an **Oncor Landis+Gyr FOCUS AXR-SD smart meter**, and because you have solar, the important thing is to distinguish **electricity coming from the grid** from **electricity going back to the grid**.

The meter can help you manually track both, but there is one important limitation: **the utility meter does not necessarily show your solar panels' total production**. It primarily measures energy exchanged with the grid.

1. Identify your meter



Your meter is labeled:

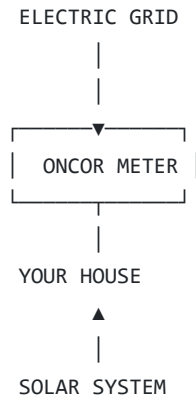
Item	Information
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Utility	Oncor
Manufacturer	Landis+Gyr
Meter family	FOCUS
Model	AXR-SD
Meter type	Smart/advanced meter
Meter number	140 349 120
Main measurement	Electricity exchanged with the grid

The large LCD display automatically cycles through different information. **You generally do not need to open, remove, or touch anything behind the meter cover.**

2. Understand the two energy directions

Think of your meter as a two-way counter:



There are two important measurements:

A. Electricity delivered to you — IMPORT

Electricity flowing:

Grid → Your house

This is electricity you purchase from the grid.

Possible display labels:

- DEL
- +kWh
- 001 — commonly the Oncor inflow channel

B. Electricity received by the grid — EXPORT

Electricity flowing:

Your house/solar → Grid

This is surplus solar electricity that your home did not consume and sent back to Oncor's grid.

Possible display labels:

- REC
- -kWh
- 057 — Oncor's documented outflow channel for surplus generation

Oncor specifically states that its solar-programmed meters use **001 for inflow/usage** and **057 for outflow/surplus generation**. ([Oncor](#))

Important: The exact display sequence can vary depending on how Oncor programmed your meter. Treat 001 and 057 as the channels to look for, but confirm the label shown on your actual display.

3. How to read the meter manually

Step 1 — Go to the meter during daylight

For your first reading, choose a time when:

- The solar system is operating.
- The house is using some electricity.
- You can stand safely in front of the meter.

You do **not** need to turn off the solar system or disconnect anything.

 **Do not remove the meter, open the meter socket, or interfere with the sealed equipment.**

Step 2 — Watch the LCD display

Stand in front of the meter and watch it for approximately **2–5 minutes**.

The display should cycle through several screens automatically. The FOCUS meter family supports programmable display sequences, so not every meter shows exactly the same screens. ([ManualsLib](#))

You may see screens resembling:

001 012345 kWh

or:

057 001234 kWh

Or the meter may use text labels such as:

DEL 012345 kWh

REC 001234 kWh

Take a photograph of each screen rather than trying to memorize the numbers.

Step 3 — Find the IMPORT reading

Look for the screen associated with:

- 001
- DEL
- +kWh
- Delivered
- Inflow

This is the cumulative electricity delivered **from the grid to your property**.

Example:

001 012,450 kWh

Record it as:

Grid Import = 12,450 kWh

This is a cumulative reading, similar to an automobile odometer. It is **not this month's consumption**.

Step 4 — Find the EXPORT reading

Continue watching the display until you find the screen associated with:

- 057
- REC
- -kWh
- Received
- Outflow

Example:

057 003,280 kWh

Record it as:

Grid Export = 3,280 kWh

Oncor describes this outflow value as cumulative surplus generation measured by the meter—not a monthly total. ([Oncor](#))

4. Your manual reading sheet

Create a simple spreadsheet or notebook like this:

Date	Time	Import / 001 kWh	Export / 057 kWh	PVS5 Production kWh
Sept 18	8:00 AM	12,450	3,280	—
Sept 19	8:00 AM	12,462	3,294	—
Sept 20	8:00 AM	12,475	3,310	—

Use the same time each day if possible.

For a more useful monthly comparison, record the readings on the **first and last day of each month**.

5. Calculate your actual grid consumption

The meter's cumulative numbers become useful when you subtract two readings.

Formula

Grid consumption = Current import – Previous import

Example:

September 30 import:	12,850 kWh
September 1 import:	12,450 kWh
September grid usage:	400 kWh

Your result

You purchased 400 kWh from the grid during September.

6. Calculate your solar export

Formula

Grid export = Current export – Previous export

Example:

September 30 export:	3,650 kWh
September 1 export:	3,280 kWh
September solar export:	370 kWh

Your result

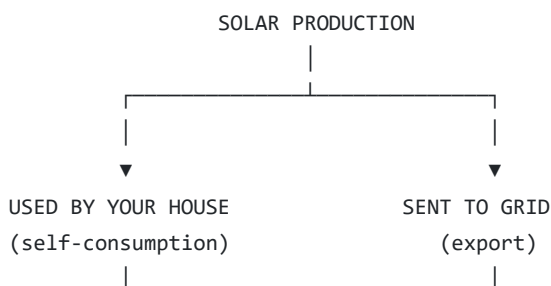
Your system exported 370 kWh to the grid during September.

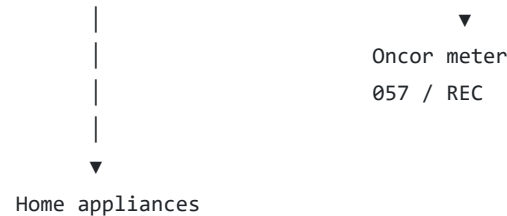
This is **surplus energy sent to the grid**, not necessarily everything your solar panels generated.

7. The critical distinction: Export ≠ Total Solar Production

This is the part that matters most for your SunPower system.

Your solar energy can go to two places:





Suppose your solar system generated **40 kWh** today:

Energy destination	kWh
Solar used directly by your house	25
Solar exported to grid	15
Total solar production	40

Your Oncor meter would only see the **15 kWh exported**—not necessarily the full 40 kWh.

Therefore:

The Oncor meter alone cannot tell you total solar production if some solar energy is consumed directly by your home.

8. How to calculate TOTAL household consumption

Since you have a **SunPower PVS5**, you can combine the meter readings with the solar production reading.

You need three values:

- 1. **Grid Import** — from Oncor meter, channel 001
- 2. **Grid Export** — from Oncor meter, channel 057
- 3. **Total Solar Production** — from SunPower/PVS5 monitoring

Formula

Total household consumption = Grid Import + Solar Production – Grid Export

Why?

Because:

- Grid import is energy entering the house from Oncor.
- Solar production is energy generated by your panels.
- Grid export is energy that left the house and went back to the grid.

Example

Suppose during one day:

Measurement	Value
Grid import	18 kWh
Solar production	42 kWh
Grid export	27 kWh

Then:

Total household consumption = 18 + 42 – 27

Result

Total household consumption = 33 kWh

Energy flow:

Grid import:	18 kWh
Solar production:	+42 kWh
Grid export:	-27 kWh
Total home consumption:	33 kWh

And solar self-consumption would be:

Solar production – Grid export = 42 – 27 = 15 kWh

So:

Category	kWh
Solar used directly	15
Solar exported	27
Total solar produced	42
Grid electricity purchased	18
Total home consumption	33

9. What each system tells you

Information you want	Oncor meter	SunPower PVS5
Electricity purchased from grid	✔ Yes	Sometimes
Electricity exported to grid	✔ Yes, if programmed for solar	Sometimes
Total solar production	✘ Usually no	✔ Yes, if monitoring is working
Solar used directly by home	✘ No	Calculated
Total home consumption	✘ Not by itself	May provide it, or calculate
Current power flow	May show indicators	✔ Usually available
Historical solar production	Limited/manual	✔ Usually available through monitoring

Oncor also provides customer access to interval usage and generation data through **Smart Meter Texas**, including usage and surplus-generation information when the meter is properly configured. ([Oncor](#))

10. How to calculate your daily numbers

Let's say you take readings every morning.

Morning readings

Date	Import	Export	PVS5 Total Production
Sept 18	12,450	3,280	50,000
Sept 19	12,462	3,294	50,042

Step A — Grid import

12,462 – 12,450 = 12 kWh

You purchased **12 kWh** from Oncor.

Step B — Grid export

3,294 – 3,280 = 14 kWh

You exported **14 kWh**.

Step C — Solar production

50,042 – 50,000 = 42 kWh

Your solar panels produced **42 kWh**.

Step D — Total home consumption

12 + 42 – 14 = 40 kWh

Daily energy report

Metric	Result
Solar produced	42 kWh
Solar exported	14 kWh
Solar used directly	28 kWh
Grid purchased	12 kWh
Total home consumption	40 kWh

11. What I can tell from your current photograph

Your photograph clearly identifies the meter, but I would **not use the visible LCD number as your official starting consumption reading yet**.

The display appears to be showing a small numeric status/measurement screen, but the photograph does not clearly establish whether the visible value is:

- Import,
- Export,
- A status code,
- Or another programmed display.

The safest approach is to photograph the **entire display as it cycles**, especially when the left-side identifier changes.

Capture these screens if available

001 xxxxxx kWh ← Grid import
057 xxxxxx kWh ← Grid export

If your meter instead shows:

DEL xxxxxx kWh
REC xxxxxx kWh

capture those.

Your practical manual workflow

Every morning:

1. Photograph the Oncor meter's **001 / DEL** reading.
2. Photograph the **057 / REC** reading.
3. Open your SunPower monitoring and record **daily solar production**.
4. Enter the three values in a spreadsheet.
5. Subtract yesterday's readings from today's.
6. Calculate:

Grid Import = Today's Import - Yesterday's Import

Grid Export = Today's Export - Yesterday's Export

Solar Production = Today's PVS5 Total - Yesterday's PVS5 Total

Home Consumption = Grid Import + Solar Production - Grid Export

That gives you a complete manual energy balance—not just your utility bill consumption.

If you want, send me a **short video or several photos of your meter as the display cycles**, and I can identify exactly which screen is **001, 057, import, export, and the other readings** on your specific Oncor meter.