

Enphase Energy, Inc.

CT-101-EN

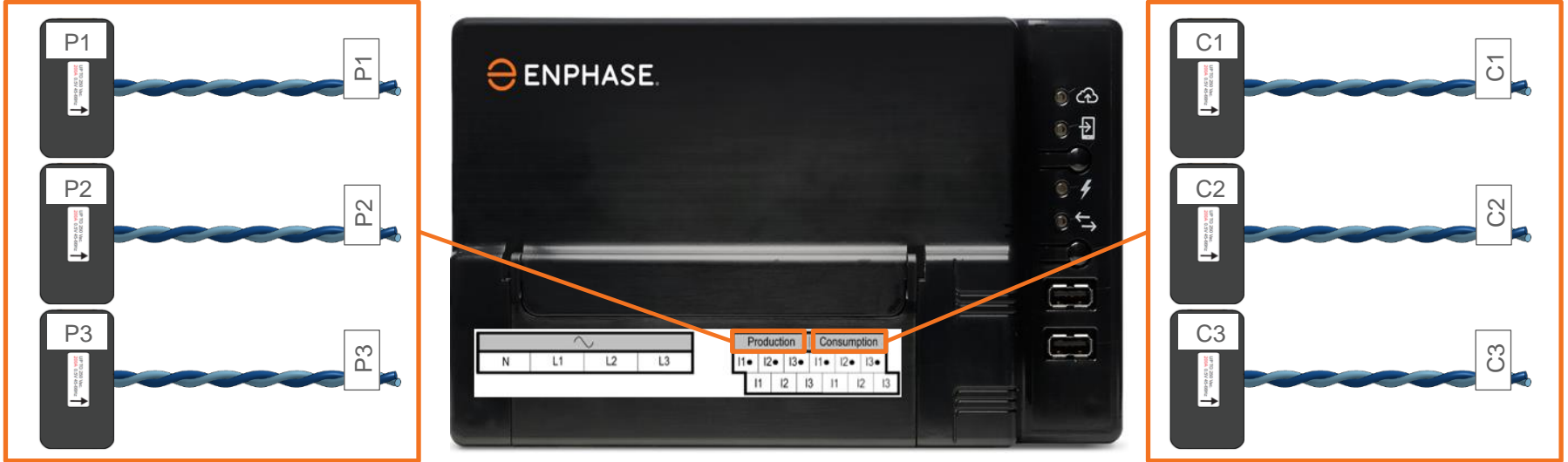


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Step 1 - Apply labels

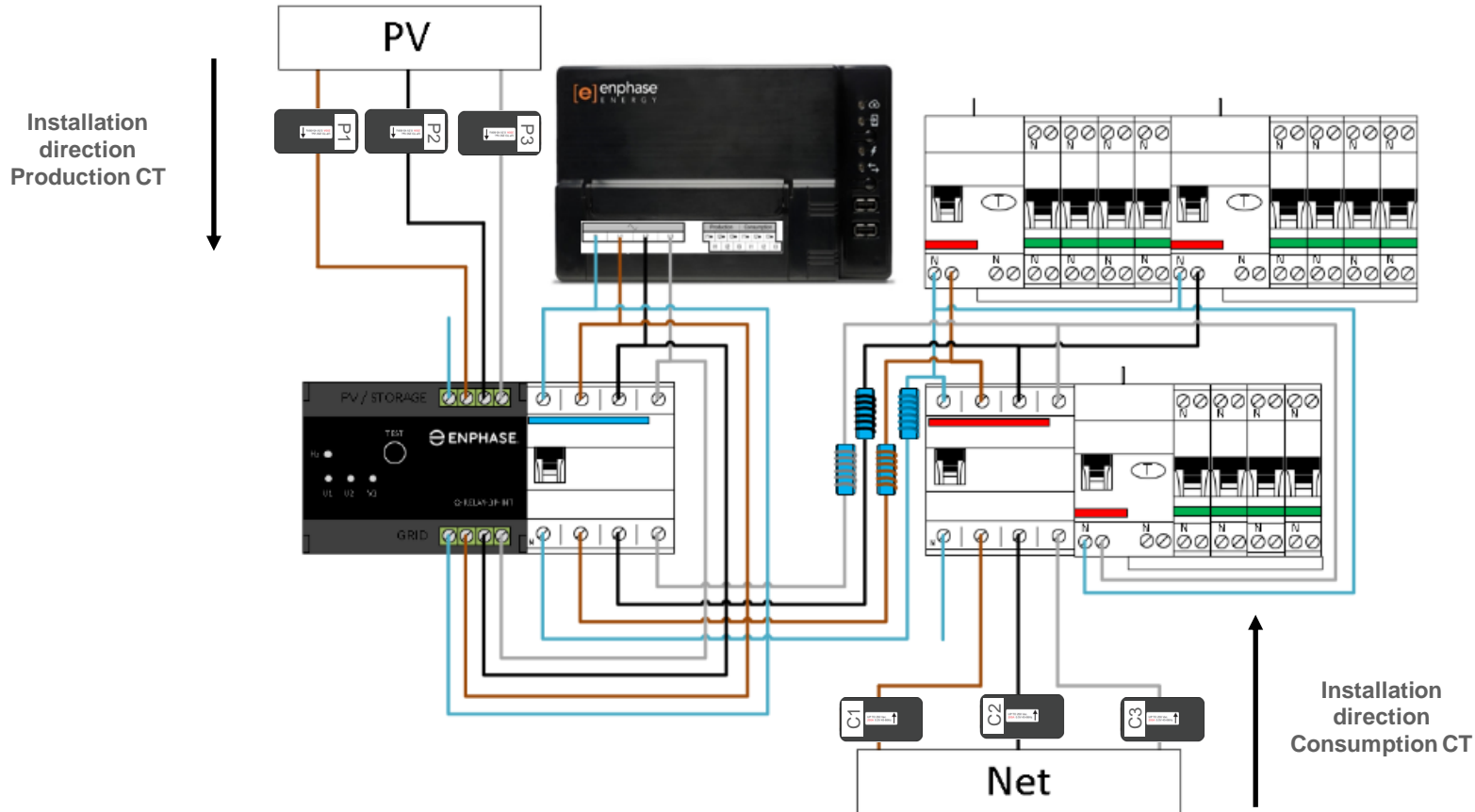


Step 2 - Connect Envoy

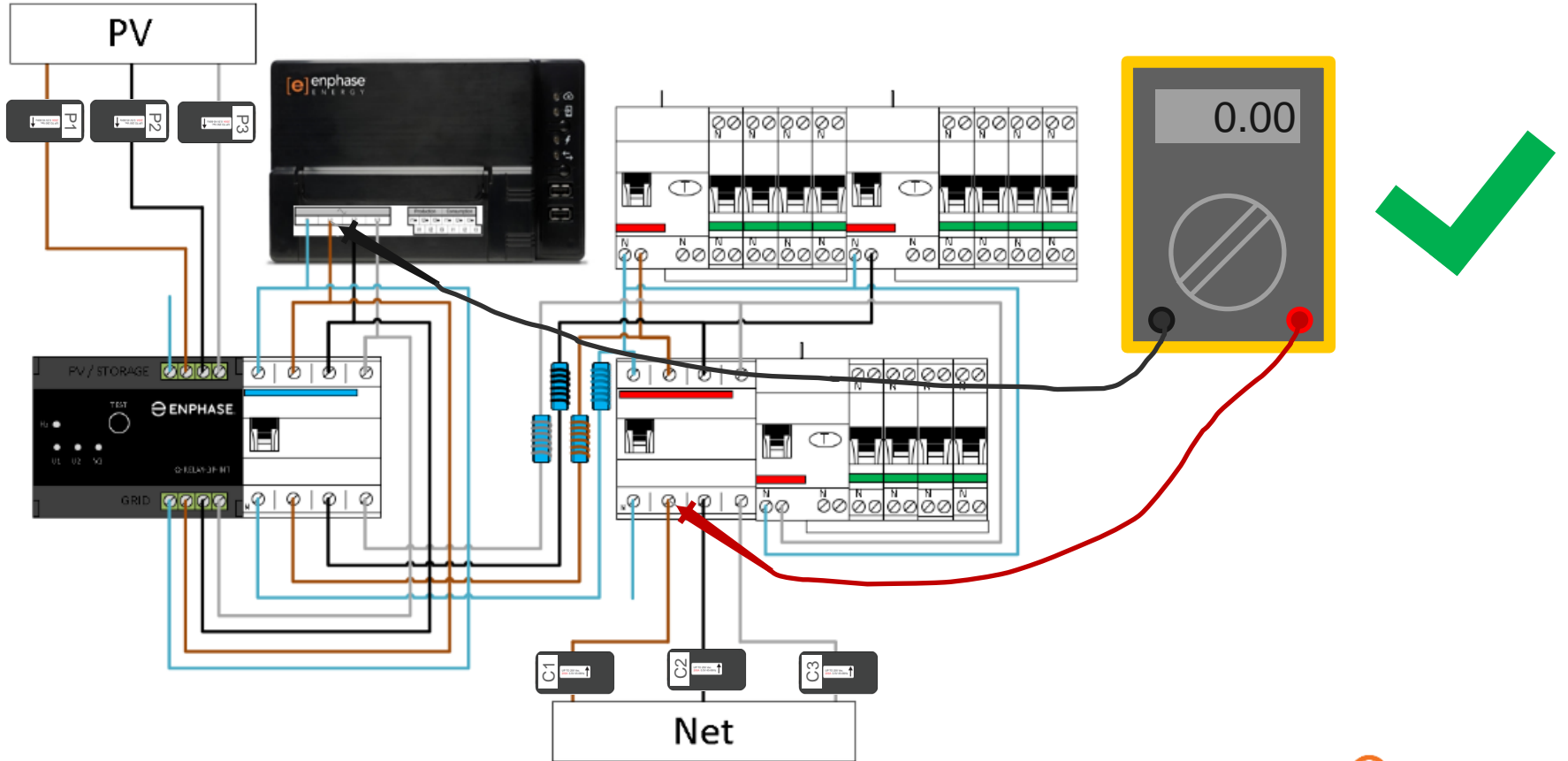
- Always connect the white wire to the top terminal.
- Always connect the blue wire to the bottom terminal (**Blue on Bottom**).
- CT wiring may be shortened and lengthened, refer to the Envoy-S Metered manual for details.
- **Connect the CT wiring to the Envoy before clamping the CT around the (active) conductor!**



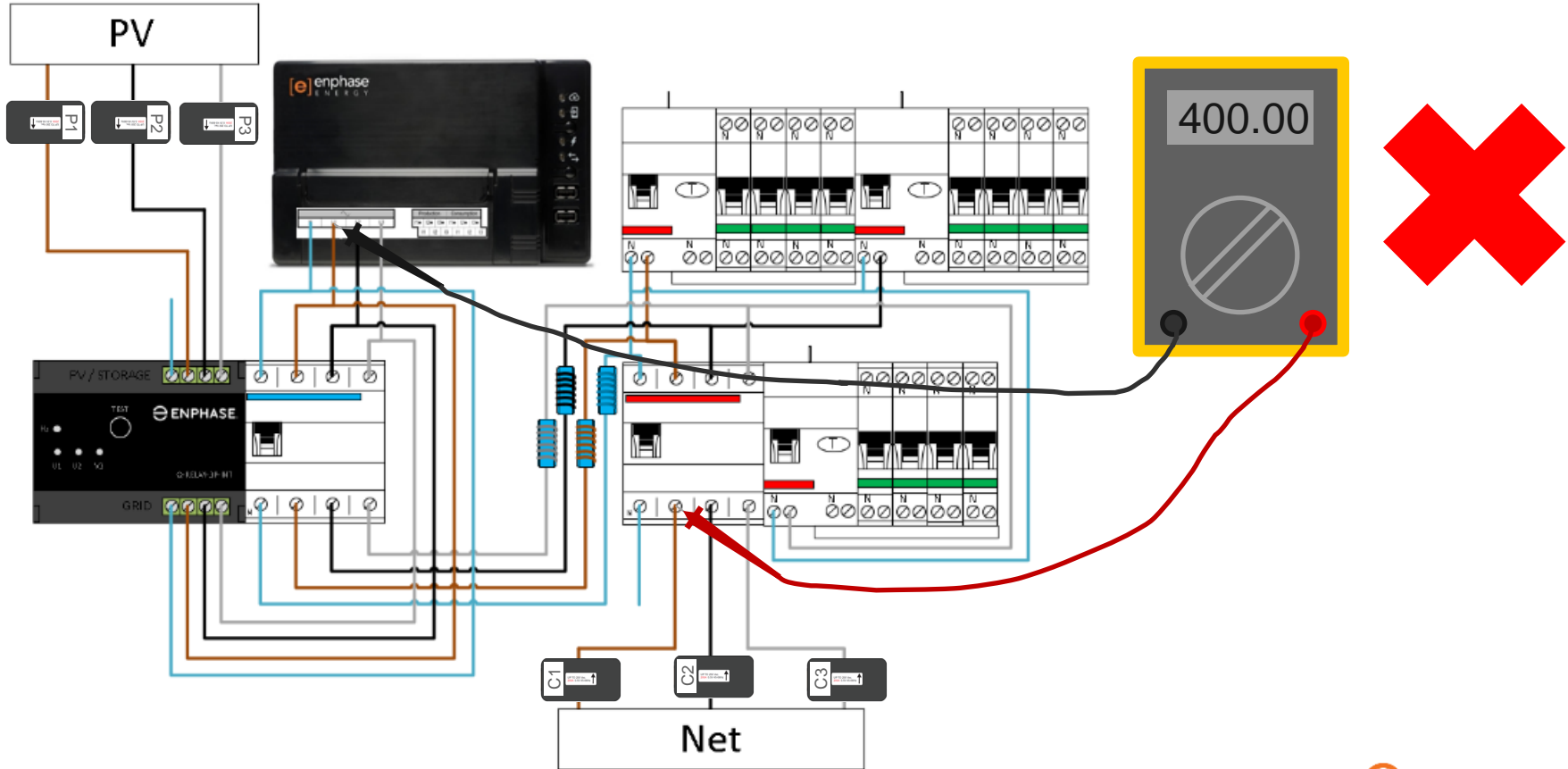
Step 3 - CT Installation



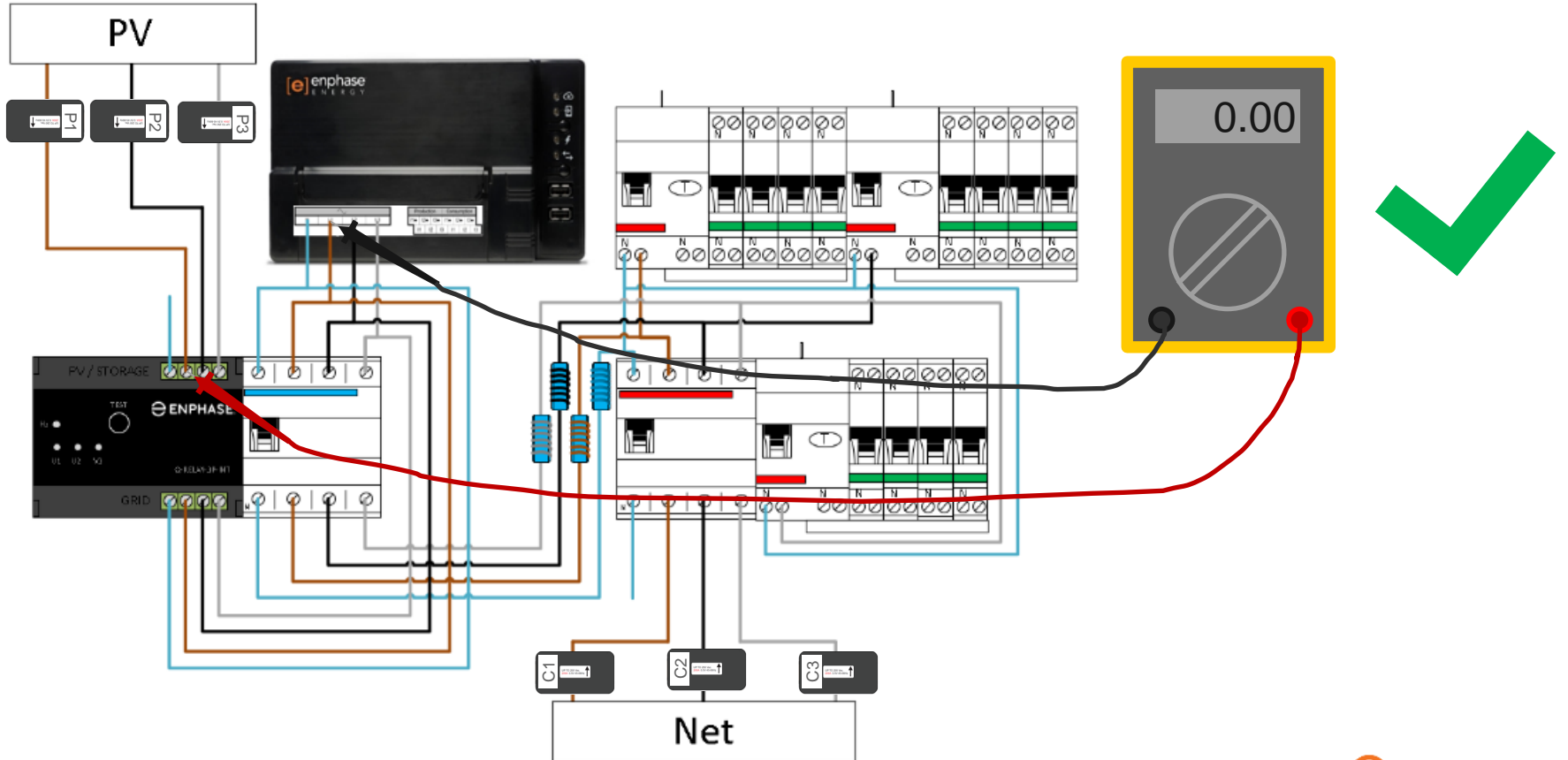
Step 4.1 - Measuring Voltage (Consumption)



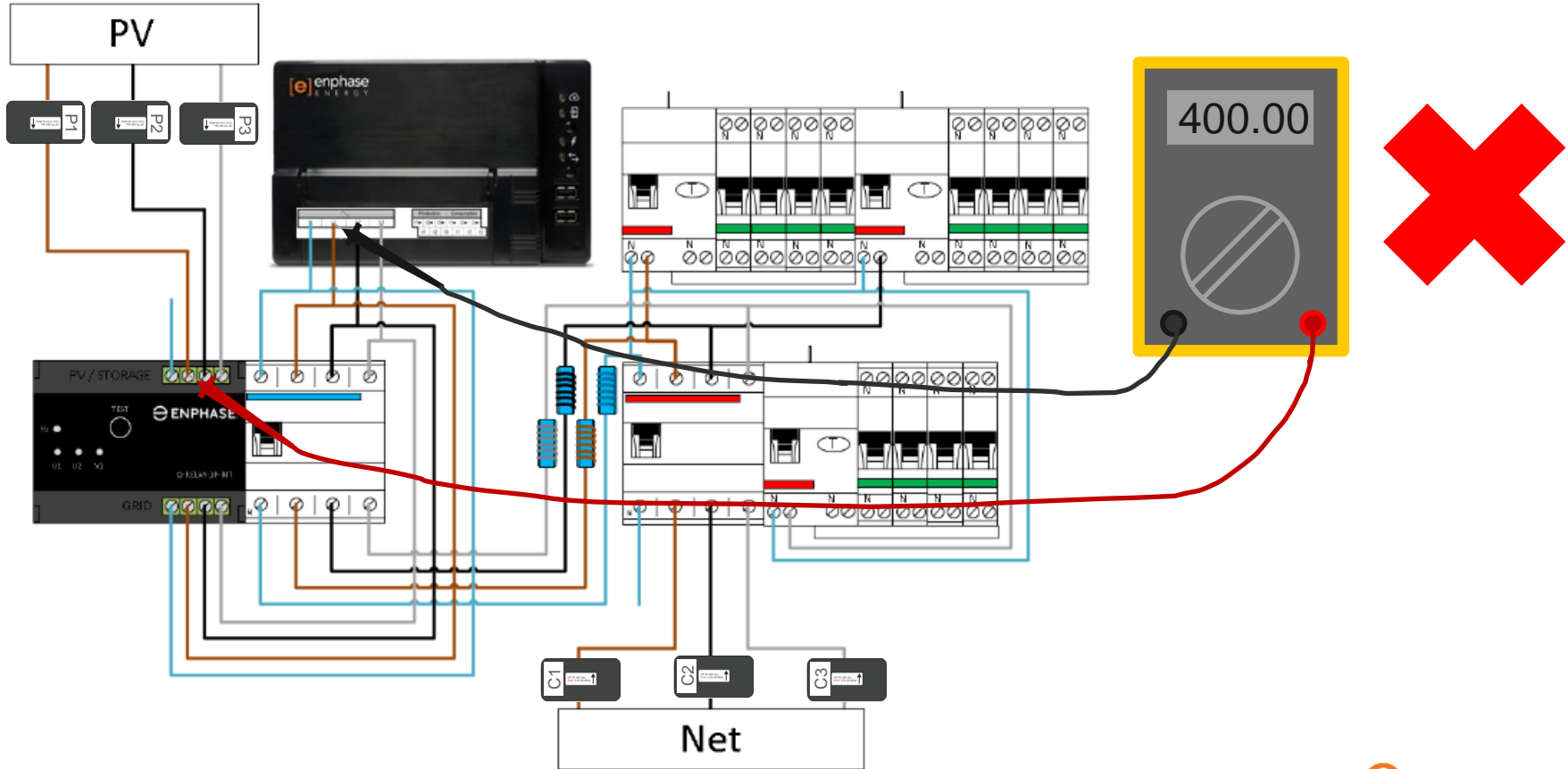
Step 4.2 - Measuring Voltage (Consumption)



Step 5.1 - Measuring Voltage (Production)



Step 5.2 - Measuring Voltage (Production)



Step 6 - Points of Attention

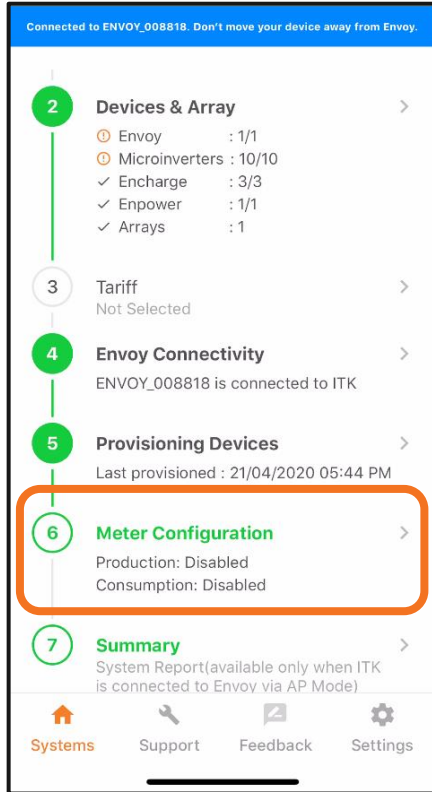
1. Switch on the entire installation to be able to perform the measurements.
2. Repeat steps 4 & 5 for each phase!
3. Every measurement of **0V** is measured on the same phase, this is good.
4. When measuring **400V**, phases are twisted in the installation, which causes incorrect measurements with the Envoy.

Do not randomly disconnect wiring or move CTs. Remember, the numbers tell the tale!

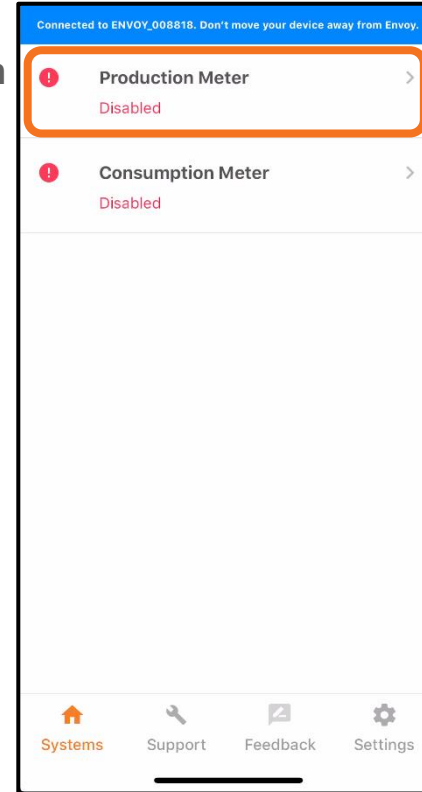


Step 7.1 - Commissioning with ITK

Press **Meter Configuration** to get started



Press **Production Meter**

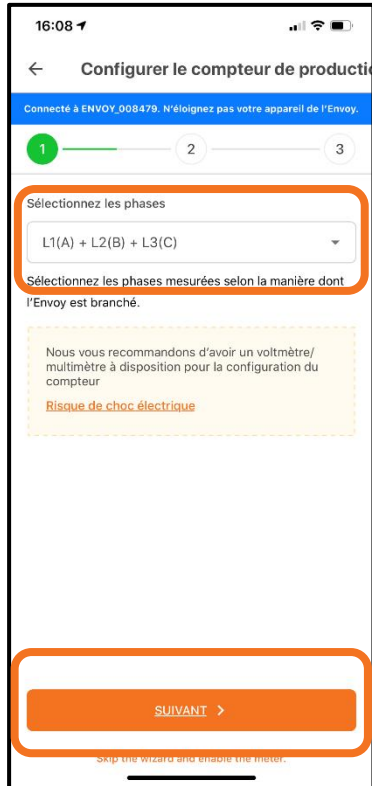


Step 7.2 - Commissioning with ITK

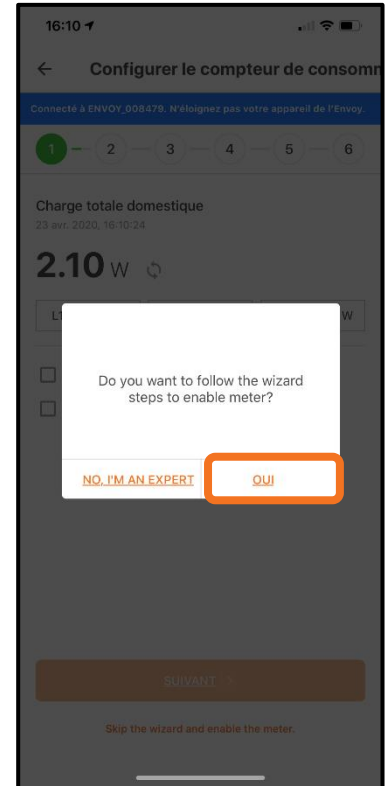
Use the drop-down menu to set the phase configuration.

In this example we assume a three-phase house, so we choose L1+L2+L3.

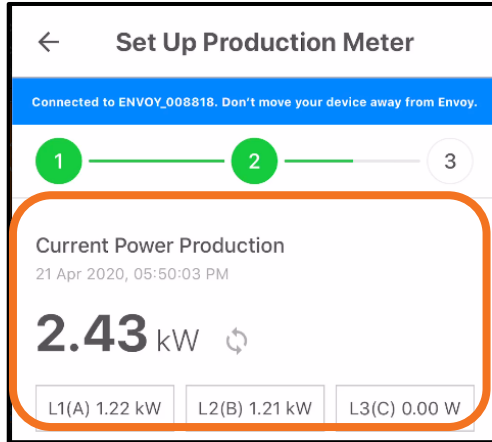
Press **Next** to continue



Press **Yes** to continue through the Setup Wizard.



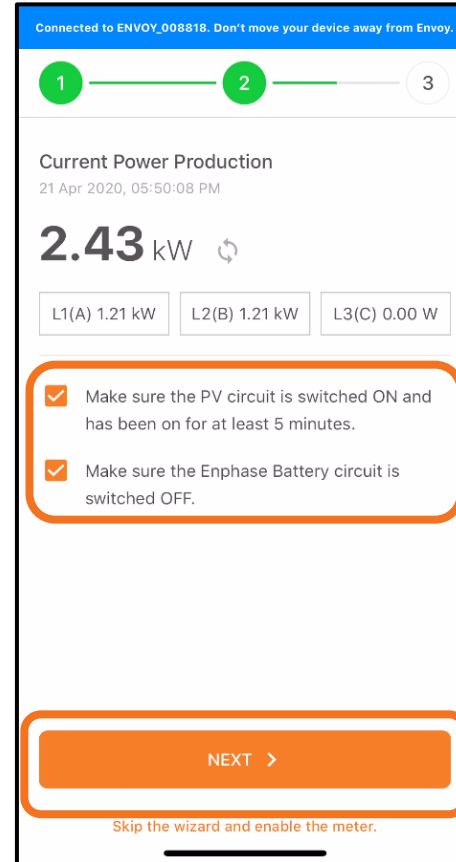
Step 7.3 - Commissioning with ITK



Now check if the readings of L1 are positive.
This step assumes that the voltmeter test has already been completed to verify that the phases are equal throughout.

Negative readings mean there is an error in the installation.

Check this for all phases.



Tap the checkboxes when steps are completed and press **Next**

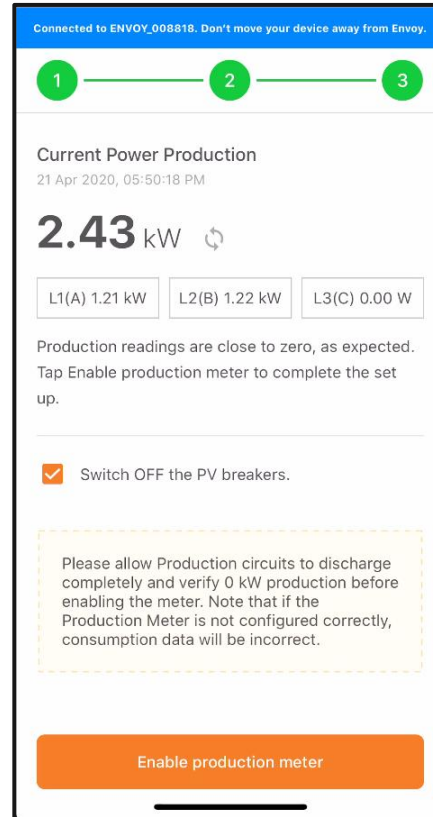
Step 7.4 - Commissioning with ITK

Switch off the PV system.

When the Envoy and the Q Relay are connected to the same RCBO, do not turn it off.

The Envoy will turn off and the commissioning must be performed again.

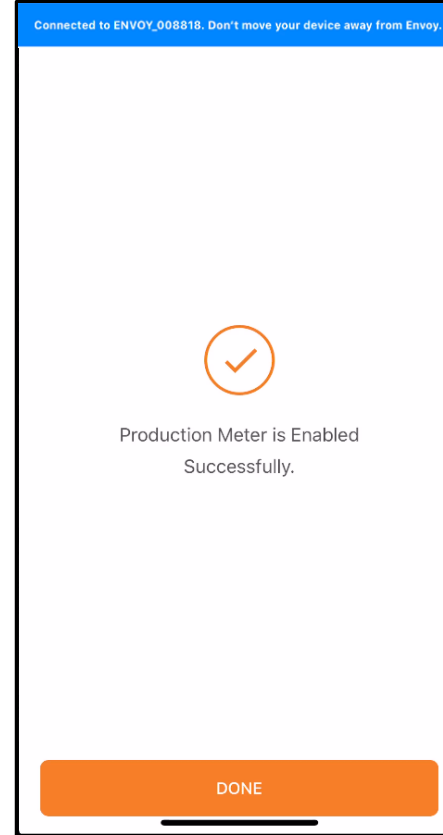
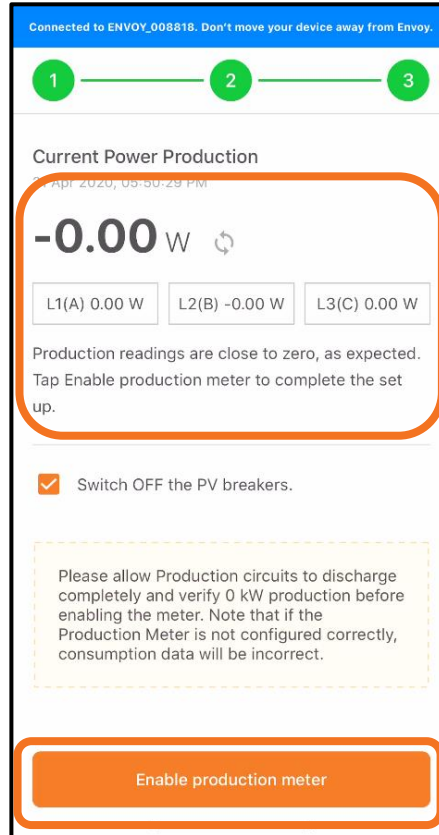
In this case, the production can be (temporarily) switched off via an isolation switch or the test button of the Q Relay.



Step 7.5 - Commissioning with ITK

Check if the production reading is zero or near zero.

If the reading is as expected, press **Enable** to enable the production meter. Then tap **Done**.

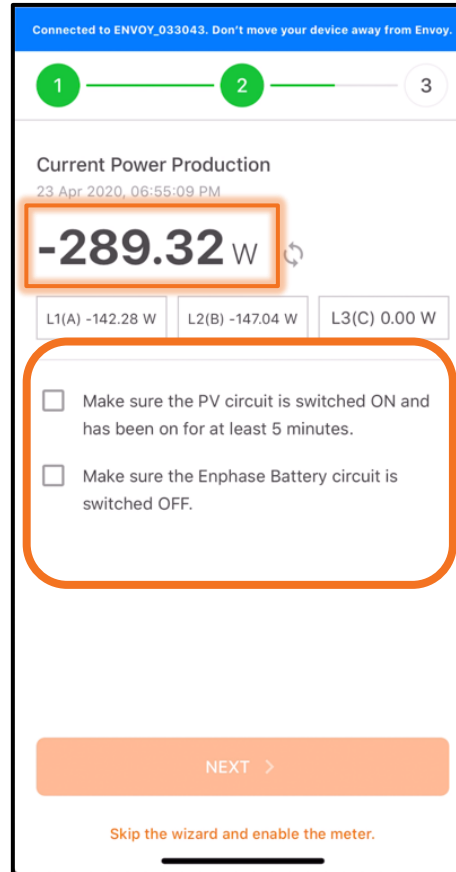


Step 7.6 - Commissioning with ITK

A **negative** production value indicates a fault in the CT installation

Check CT orientation and wiring through the CT

Check that there are no reverse connections

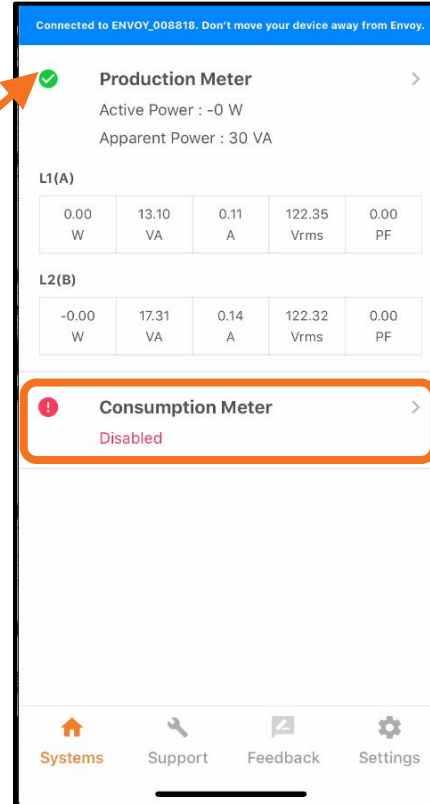


Follow the suggestions to solve the problem

Step 8.1 - Commissioning with ITK

Press **Consumption Meter**

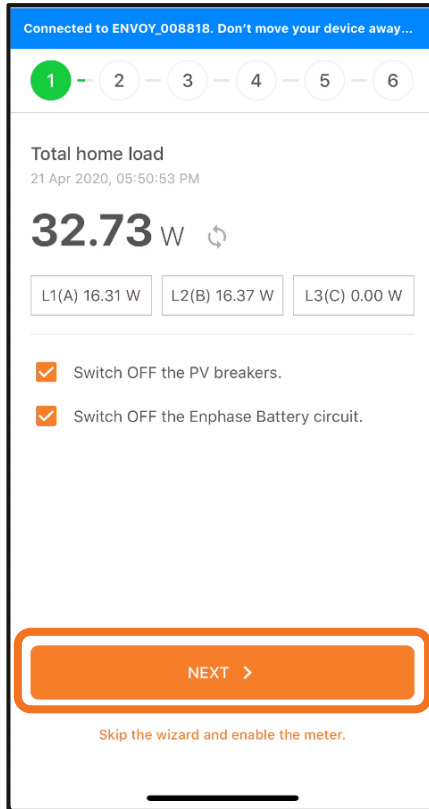
NOTE: Production metering must be configured and enabled before the consumption meter is enabled.



Step 8.2 - Commissioning with ITK

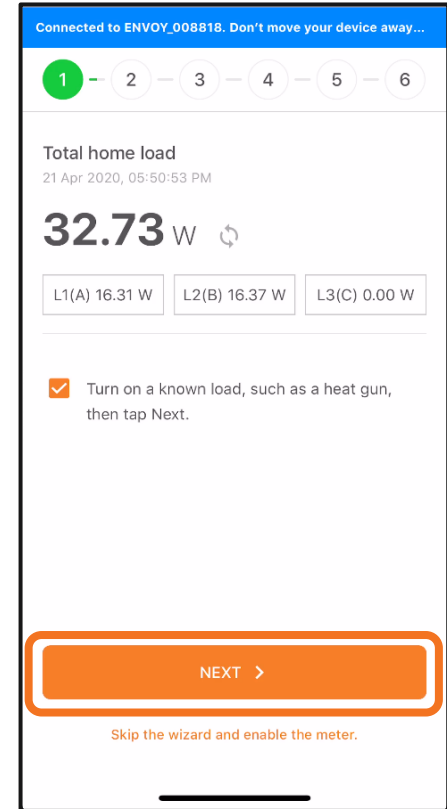
Verify that all PV and battery circuits are off

Press **Next** to continue



Enable a known high wattage load as a secondary meter control

Press **Next** to confirm the measurements

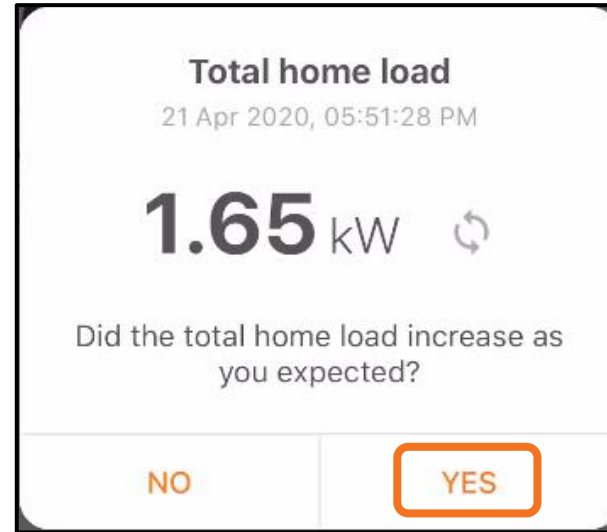
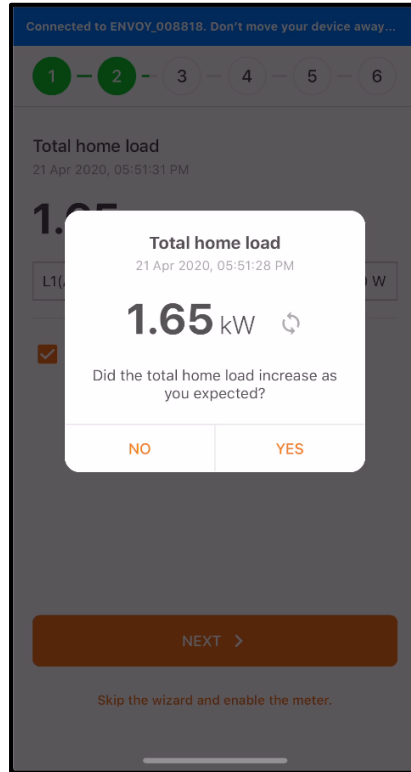


Step 8.3 - Commissioning with ITK

PV and battery storage off?

With the additional load turned on, the total home load should increase.

Press **Next**

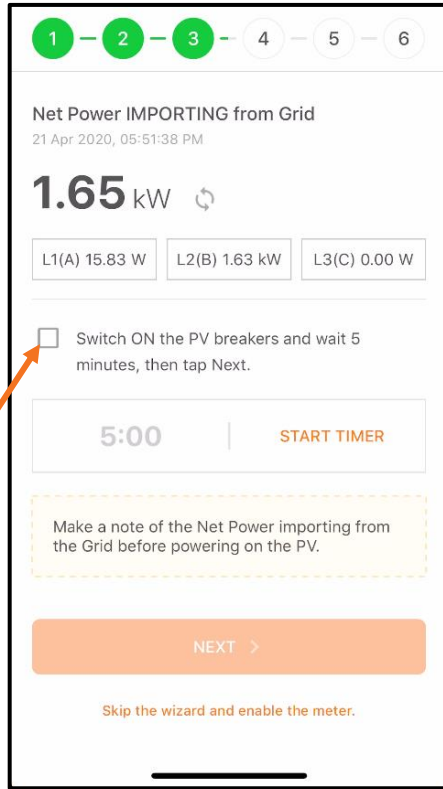


Step 8.4 - Commissioning with ITK

PV production must be disabled until this step

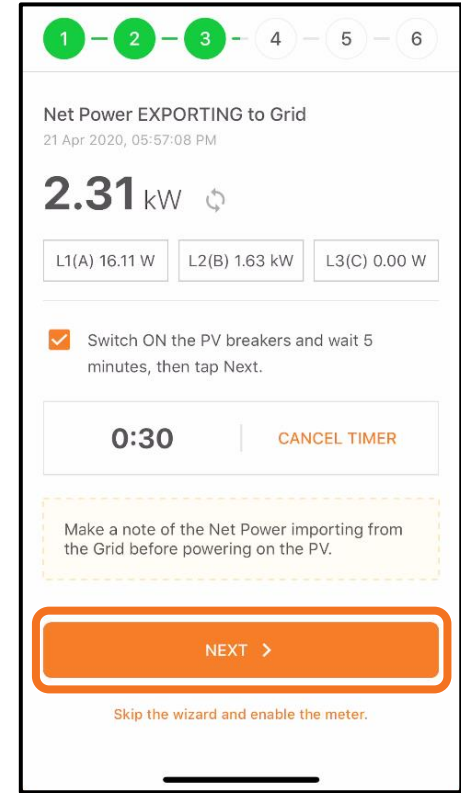
Press to select "Turn on the PV breakers..."

Turn on PV production and start timer

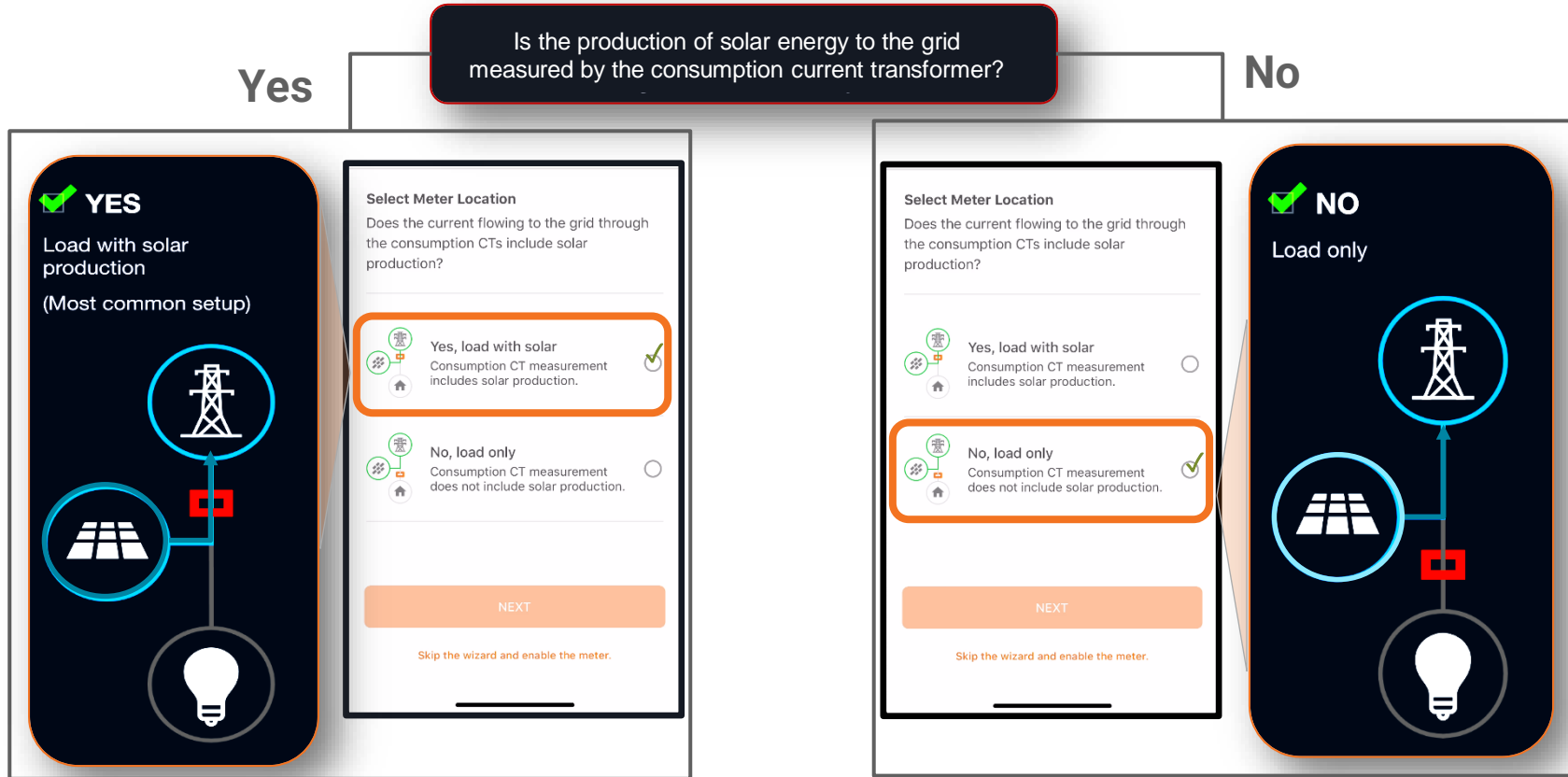


The net power changes once the inverters produce

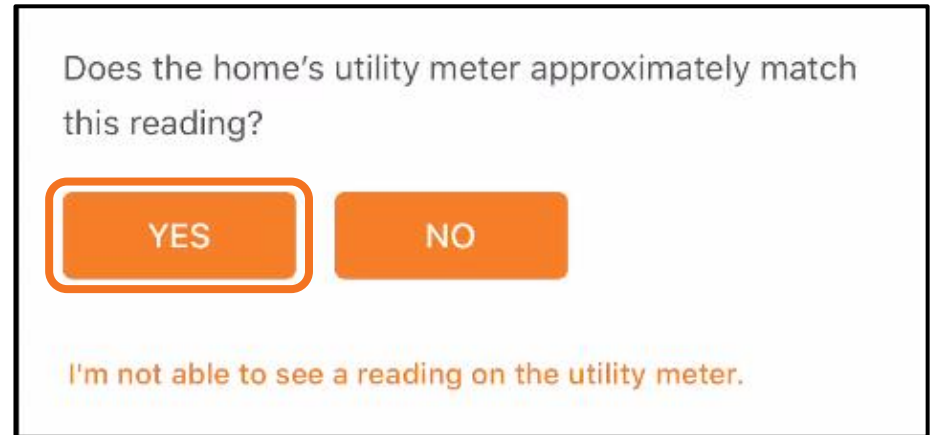
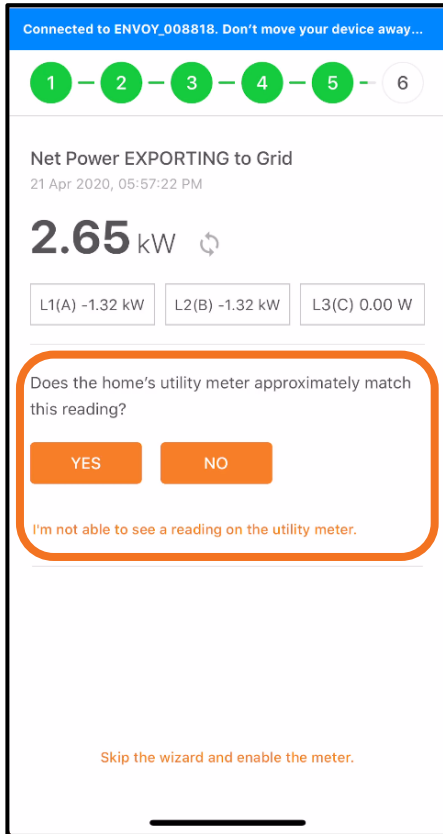
Press **Next** to continue



Step 8.5 - Commissioning with ITK



Step 8.6 - Commissioning with ITK



Step 8.7 - Commissioning with ITK

Press **Enable** to enable the consumption meter for reporting to Enlighten. Then press **Done**

