How to calibrate diverter versus old type meter

1. When PV is not producing power – put clamp on neutral lead.
2. On the solar monitoring app record Power being used with house (P).or by other means. Try to keep it constant.
3. Flash the **cal\_CT1\_v\_meter.ino** code to microcontroller.
4. Stopwatch one rotation of the analogy meter disc, record the value (t).
5. Calculate the pulse interval and record the value.
6. On the diverter boar, while running the cal. code and having the LED connected to trigger point, stopwatch the blink interval, compare against earlier calculated time.
7. If different, adjust the const float powerCal\_grid value, until timing match

Example:

Using formula *P = (3600 \* Kh) / t per revelation*

*\*Kh or Kh is referred to as the watt-hour constant and equals the number of watt-hours for one turn of a electromechanical meter, or one pulse period for electronic meters, like the WattNode® Pulse meter. For example, if the WattNode meter generates one pulse every 1.2 kilowatt hours, then Kh = 1200 watt-hours / pulse.*

Manipulate in regards to Kh *Kh = (P \* t) / 3600*

* plugging the values:
* t = time of one rotation of the disc at power being drawn by house
* P = power being drawn by house, try to keep it constants (do not turn an extra

Appliances/ loads in house

Kh= (600W \* 12.8s) / 3600 // in my case one rotation takes 12.8s at load of 600 W/h drawn

Kh=2.13s

// The time result in seconds should match the flash interval of LED attached to trigger pin

* update the code, if result doesn’t match blink interval of the LED adjust the constant value and try again

const float powerCal\_grid = 0.0146;  // for CT1 in my case