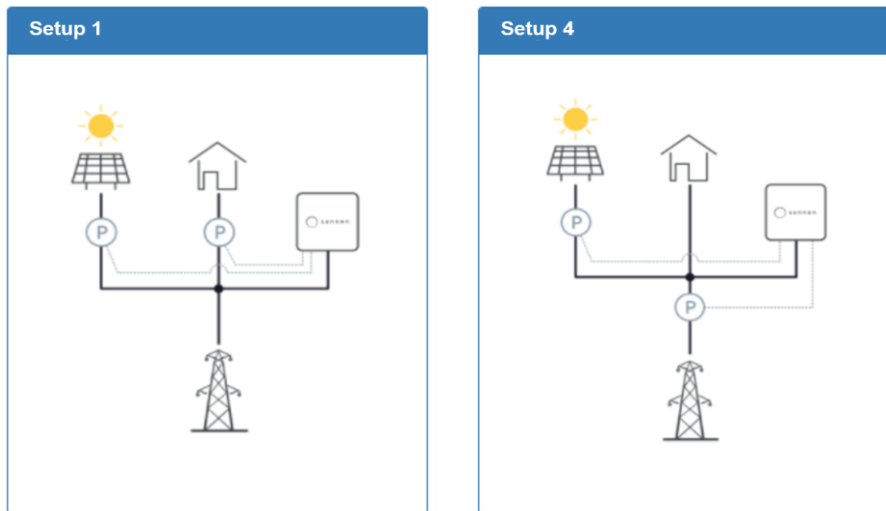


TN015 – Sonnen eco 8 Metering Options

The sonnen eco 8 system series have multiple metering options within the commissioning assistant software based on CT positions. In some circumstances options are required due to the physical configuration of loads and integrated solar PV systems. For the vast majority of retro fit or upgrades to solar PV installations where the sonnen system is being included then setup 1 is the preferred design as in this configuration self-consumption is prioritised.



Setup 1 will calculate power flow both in export and import from the grid metering point. This calculation is based on the measurement of the solar PV production as well as the load consumption at the closest point to the loads. This calculation will also factor the input and output of the sonnen eco 8 system allowing for all conversions from AC to DC and reverse, plus system self-consumption.

The direct metering at point of utilisation of energy to loads in setup 1, as well as measuring of the solar PV production at the AC point of isolation will also factor cabling or conversion losses. This method of measurement is the most accurate for the purposes of self-consumption as the monitoring measures the amount of actual energy either being delivered or consumed.

Setup 4 has the consumption CT positioned at the metering / grid connection point. In some circumstances DNSP's (Distribution Network Service Providers) will require the CT to be located in this position to allow for accurate control of grid-export. In this configuration, the import and export of energy is measured as opposed to being a calculation as in setup 1.

The main differences between the two setups is that setup 1 will prioritise self-consumption and setup 4 will prioritise energy flow through the grid connection point. When grid import / export values recorded within the sonnen User Portal are compared to the utility metering setup 4 will in most circumstances have closer values than setup 1 as the values have been measured as opposed to calculated.

Please Note: The measurement devices used by sonnen are all Class 1 grade and offer a 1.5% tolerance of accuracy. To configure systems into setup 4 the Easy Connect feature of EM271 will need to be deactivated – please refer to the tech note: TN014 – Sonnen – EM271 Meter – EC (Easy Connect) Disable

If you have any further questions or require support or assistance, please contact us at support@sonnen.com.au.

Yours faithfully,



James Sturch
 Technical Business Manager Australia & New Zealand