How does the Consumption task estimate self-consumption?

Easy PV simulates generation, consumption and battery usage across a full year to estimate how much solar energy is used on site. The self-consumption is the proportion of electricity generated that is consumed on the property (directly or via a battery).

To determine how much is used in the property, we use the total generation figure from the Performance task and model this across the year using a PVGIS **generation profile**. This is then compared against the chosen **consumption profile**. Easy PV looks **minute-by-minute over the course of the year** at how much energy is generated and consumed and, if present, how charged the battery is. It then models how the energy would be diverted accordingly. For example, if solar power is being generated and the profile shows they are consuming energy at that time, then this energy will be diverted to consumption. If they are not consuming at that time then it will be used to charge a battery (where present) or discharged to the grid. This factors in forced charge and discharge times, battery specs and export limits. We can then determine how much is used directly, used to charge the battery, or sent to the grid.

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