

How to calculate the self-consumption of energy storage containers

How is self-consumption determined?

4.1 Self-consumption is determined using: the total annual expected AC electricity generation in kWh from the solar PV system, the annual electricity consumption of the property in kWh and the domestic occupancy archetype.

What is the percentage self-consumption of solar energy?

If half of the electricity produced by the PV is consumed by the household, the percentage self-consumption is 50%. The self-consumption is affected by various factors such as the level of solar PV generation, household consumption and times of consumption.

How to communicate the self-consumption figure for a solar PV installation?

5.1.1 The self-consumption figure for the solar PV installation shall be communicated in a written format and in such a way that it is clear whether this refers to a case with and without electrical energy storage. 5.1.2 It is permissible to communicate self-consumption for each of the occupancy archetypes on the same system.

What is the self-consumption value?

5.5.1 The self-consumption value is an estimate of the average for the selected occupancy archetype, solar PV electricity generation and demand according to the modelling work undertaken for this document.

What factors affect self-consumption?

In practice, self-consumption is dependent on a variety of factors including the solar PV generation, location of the solar PV array, the orientation, the number of solar PV modules, shading, the total electricity load and consumption of the property and the behaviour of the occupants.

How can a solar PV system increase self-consumption?

An increase in self-consumption of the solar PV can be achieved using the following methods: Install domestic battery storage to store excess electricity generation for consumption later in the day. Install a solar immersion controller. This can use excess solar generation to power the immersion heater for a hot water cylinder.

Updated: 21 Feb 2023 To assess the impact of adding solar PV panels or battery storage on your energy consumption use our calculator. The calculator helps evaluate the financial benefit of an investment in solar panels and/or battery ...

Methodology Photovoltaic (PV) systems generate electricity which can be used in the dwelling or exported to the grid. The amount of electricity generated will depend on the characteristics of ...

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