What is excess?

Excess is a value that results from a master eGauge losing contact with certain remote registers, such as power values from a remote, secondary eGauge. It generally does not appear on eGauges without remote devices.

When a master eGauge re-establishes communication with a lost device, cumulative values (energy or kWh) on the master eGauge need to "catch up" to the remote device's cumulative values. This ensures that the data imported from the remote eGauge and the data measured by the master eGauge match at second granularity.

The master eGauge "catches up" to the remote device by adjusting the instantaneous (power or kW) values +/- a maximum of 10%, until the cumulative values (kWh) match. The amount difference between the master eGauge and it's remote register is considered excess.

This allows cumulative values like kWh (energy) to match between the master and remote device, even though there was a loss of communication. To summarize, when there is excess after communication loss, the instantaneous values on the master are adjusted +/- 10% until cumulative values match.

How do I check for excess?

Excess values for a register can be checked at `http://`**`DEVNAME`**`.egaug.es/cgi-bin/egauge?teamstat`, where **`DEVNAME`** is the device name of the master eGauge. Any value other than 0 in the <excess> tags indicates an accumulation of excess for that register. Local registers, such as power calculations, will always have an excess value of zero.

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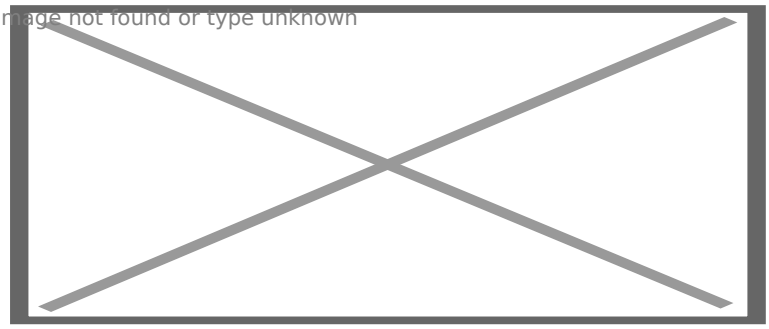

*Output from http://**DEVNAME**.egaug.es/cgi-bin/egauge?teamstat - no excess is present on the Grid register*

> *Meters sold after January 1, 2024 may show this information at: https://**DEVNAME**.egauge.io/cgi-bin/egauge?teamstat*

How do I get rid of excess?

Excess will naturally decrease as the instantaneous values are adjusted +/- 10% until it reaches zero. If it is undesirable to allow the excess to decrease naturally, excess can be cleared immediately by visiting `http://`**`DEVNAME`**`.egaug.es/cgi-bin/protected/egauge-cfg?clearexcess` where **`DEVNAME`** is the name of your eGauge. This may be the case if there was an unreasonably long loss of a remote device, such as several months. Note your device must be running firmware v3.01 or greater to clear excess.

This command will *immediately* release excess in the form of a spike on the graph. Cumulative values (like energy/kWh) will now match between the master eGauge and remote devices. The resulting spike will be proportional to the missing kWh, and since it will be recorded in a one-minute granular entry, it will appear to be erroneously high. However, looking at the time from from when the remote device was lost, to the point of the spike or later, both cumulative (kWh/energy) and instantaneous averages (kW/power) values are correct.

If cumulative values on the master eGauge are unimportant and the spike is undesired (for example, if excess was generated as part of the initial configuration process), you may see our tutorial on clearing spikes for information on how to clear this data from the device. Keep in mind, the spike and excess essentially contain the data that *would* have been written to the register over time, so erasing excess or spikes will invalidate data used for billing and other purposes.
