



energia

Self-consumption with surplus and simplified compensation

What does it mean to have a simplified compensation self-consumption plan?

According to Spanish Royal Decree 244/2019, simplified compensation works by providing you with financial compensation for each kWh of energy that your energy company feeds back into the grid. At U energia, we pay this compensation at real market value, minus one euro for deviation and other expenses. The amount corresponding to access rates, however, is never compensated.

Here's an example from January 2022. There were 150 kWh of energy consumed from the grid, 300kWh fed back into the grid, a 2.0 A rate and three energy time periods:

Cost of grid energy consumption on your bill			Calculation of access rates		
P1	P2	P3	P1	P2	P3
50 kWh consumed x 0,418437 €/kWh	50 kWh consumed x 0,316156 €/kWh	50 kWh consumed x 0,247007 €/kWh	50 kWh consumed x 0,100756 €/kWh	50 kWh consumed x 0,03374 €/kWh	50 kWh consumed x 0,004351 €/kWh
20,92€	15,81€	12,35€	5,04€	1,69€	0,22€
Total consumed in € 5,42 €			Total access rates in € 2,2 €		

Importe de la energía vertida		
P1	P2	P3
100 kWh consumed x 0,25404 €/kWh	100 kWh consumed x 0,22893 €/kWh	100 kWh consumed x 0,17978 €/kWh
25,40€	22,89€	17,97€
Total fed back into the grid in € 66,26 €		

In this example, the compensation will be calculated in the following way:

Total consumed	Total access rates	Maximum compensation
49,08 €	— 6,94 €	42,14€

In this case, the total energy fed back into the grid is greater than the maximum compensation amount, so a line will appear on the bill with a positive figure which represents the amount that cannot be compensated:

Total fed back into the grid	Total compensated	Balance
66,26 €	— 42,12 €	24,12€

Virtual Battery

How can I benefit from the 100% of my compensation?

If you hire our virtual battery service, we can accumulate that non-compensable adjustment and subtract it from your next bill or another supply bill belonging to the same owner. (More info here)

Example #1: Virtual Battery Charging

Let's consider the previous example, applying the virtual battery to a January 2024 bill with 150 kWh consumed from the grid, 300 kWh discharged and a 2.0TD rate with three energy periods. Let's assume this customer starts at a € 13 charge virtual battery.

Billed cost of grid consumption			Access tolls estimate		
P1	P2	P3	P1	P2	P3
50 kWh consumed x 0,210603 €/kWh	50 kWh consumed x 0,14878 €/kWh	50 kWh consumed x 0,101653 €/kWh	50 kWh consumed x 0,076974 €/kWh	50 kWh consumed x 0,027963 €/kWh	50 kWh consumed x 0,002752 €/kWh
10,53€	7,44€	5,08€	3,85€	1,40€	0,14€
Total € Consumption 23,05 €			Total € Tolls 5,39 €		

Amount of discharged energy		
P1	P2	P3
100 kWh Discharged x 0,10287 €/kWh	100 kWh Discharged x 0,09429 €/kWh	100 kWh Discharged x 0,0706 €/kWh
10,29€	9,43€	7,06€
Total € Discharged 26,78 €		

This example's compensation would look like this:

Consumption total	Tolls total	Compensation peak
23,05 €	— 5,39 €	= 17,66€

In this case, the total discharged exceeds the compensation peak, so the difference will be used to charge the virtual battery:

Total discharged	Total compensated	Battery charge
26,78 €	— 17,66 €	= +9,12€

So the virtual battery balance would be:

VB balance	Charge	New VB balance
13 €	+ 9,12 €	= 22,12€

Example #2: Virtual Battery Discharge

Let's consider another example, applying the virtual battery to a January 2024 bill with 150 kWh consumed from the grid, 90 kWh discharged and a 2.0TD rate with three energy periods. Let's assume this customer starts at a € 22.12 charge virtual battery.

Billed cost of grid consumption			Access tolls estimate		
P1	P2	P3	P1	P2	P3
50 kWh consumed x 0,210603 €/kWh	50 kWh consumed x 0,14878 €/kWh	50 kWh consumed x 0,101653 €/kWh	50 kWh consumed x 0,076974 €/kWh	50 kWh consumed x 0,027963 €/kWh	50 kWh consumed x 0,002752 €/kWh
10,53€	7,44€	5,08€	3,85€	1,40€	0,14€
Total € Consumption 23,05 €			Total € Tolls 5,39 €		

Amount of discharged energy		
P1	P2	P3
30 kWh Discharged x 0,10287 €/kWh	30 kWh Discharged x 0,09429 €/kWh	30 kWh Discharged x 0,0706 €/kWh
3,08€	2,83€	2,12€
Total € Discharged 8,03 €		

This example's compensation would look like this:

Consumption total		Tolls total		Compensation peak
23,05 €	—	5,39 €	=	17,66€

In this case, the total discharge does not reach the compensation peak, so the difference will be the maximum that the virtual battery can discharge (as long as there is sufficient balance in the virtual battery) to compensate for this extra amount on the bill:

Total discharged		Total compensated		Battery discharge
8,03 €	—	17,66 €	=	-9,63€

Once the virtual battery balance is used, it will be updated by adding and subtracting these operations. Thus, the new virtual battery balance will be:

VB balance		Discharge		New VB balance
22,12 €	—	9,63 €	=	12,49€

other important issues

How do you calculate how many kWh are compensated?

At U energia, when we create your bill, we use the numbers provided to us by the person who takes the meter reading, your distributor. We wait for them to send us the numbers they have taken from the reading and use them to prepare your bills.

When a bill contains incorrect consumption amounts, and once we have ruled out this being an internal error, we ask the distributor to send us the correct reading.

So why doesn't the amount on my bill match the amount on my meter?

Current regulations talk about net balances. This means that your electrical unit measures energy in hours, and the situation may arise when you both use energy from the grid and feed energy back into the grid all in the same hour. In this case, the distributor calculates a net balance by grouping the energy consumed and the energy fed back in each hour.

WITHOUT NET CALCULATION		
Time	Energy consumed	Energy fed back into the grid
-	-	-
12	50	20
13	20	5
14	15	0
15	0	15
16	10	0
-	-	-
	Total input 95	Total output 40

WITH NET CALCULATION		
Time	Energy consumed	Energy fed back into the grid
-	-	-
12	30	0
13	15	0
14	15	0
15	0	15
16	10	0
-	-	-
	Total input 70	Total output 15

For this reason, the amount shown on the bill may not always coincide with the meter reading.

How can I access these calculations?

Distributors are the ones who make these calculations and they are not obligated to share them with the energy company, so we don't have access to them. You may, however, get in touch with your distributor and request access to them.

How can I maximise the efficiency of my self-consumption unit?

To make the most of your investment, the best thing you can do is consume energy at the same time as it is being generated. Take advantage of this moment to turn on your home appliances or other devices, or programme them to run during this time, allowing you to use up the energy you generate during daylight hours. This way, you'll achieve greater savings on your electricity bill.

Where can I consult the regulations governing self-consumption?

Spanish Royal Decree 244/2019 of 5 April is the law that currently governs the administrative, technical and financial conditions of electrical energy self-consumption. Click on the link to consult the law.