

Axpo Energy Efficiency

Reactive power compensation

Energy management service that combines reactive energy compensation with the best electricity rate.

Did you know that... you consume an „invisible“ energy that you have to pay for and you don't take advantage of?
At Axpo we give you the best solution so that you pay less and be more efficient.

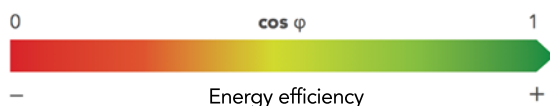
What is the reactive energy?

It is the energy, measured in KVAh, used to power the magnetic circuits present in different equipment such as motors or compressors, among others.

Although it does not produce work, it is **necessary**, in small quantities.

How is reactive energy measured?

It is measured through the power factor, or $\cos \phi$, which translates into the degree of efficiency of your electrical installation. This term varies between 0 and 1, with greater energy efficiency for values close to 1.



Why is it necessary to eliminate it?

Although certain equipment needs this energy to function, a high consumption can translate into penalties in the electric bill and, therefore, in a considerable increase in the **energy cost**.

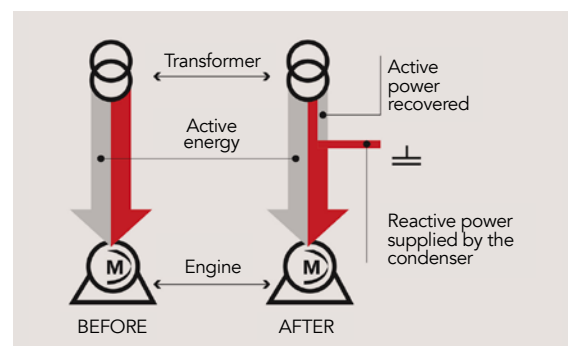
How is it eliminated?

Axpo offers the installation of capacitor banks that compensate the reactive energy in the installation itself.

For this, the following is carried out:

- > an **initial estimate** through your electric bills
- > or more precisely by performing direct measurements on the installation (load fluctuations, voltage levels, harmonic levels, etc.).

After studying the case, we recommend the best equipment, from a **capacitor bank** to a **harmonic filter**.



We coordinate, execute and supervise turnkey projects, offering solutions with tailored financing.

Penalties on your invoice

The penalty for reactive energy (\cos) is done as follows:

- > The meter records the consumption of active and reactive energy in the installation.
- > With these data, the company calculates an average $\cos \phi$, and if it is less than 0.95, it applies a penalty based on the calculated value.

Currently, the penalty for reactive energy consumption is:

$\cos \phi$	€/kVAh
$0,8 < \cos \phi < 0,95$	0,041554
$\cos \phi < 0,8$	0,062332

What equipment consumes reactive energy?

If your installation has any of these equipment...

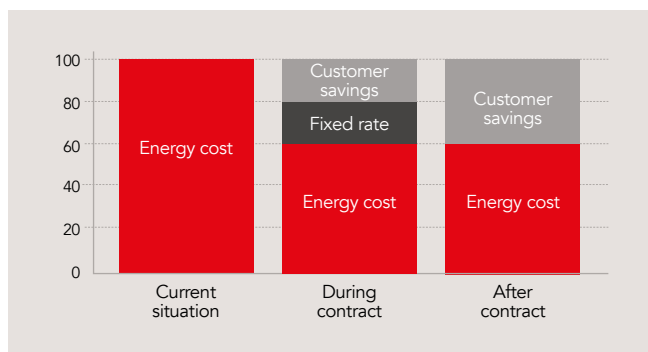
- › Engines
- › Compressors
- › Air conditioning equipment
- › Water treatment plants
- › Lighting
- › Cold rooms
- › Among other,

....and you detect a high cost of reactive energy on the bill.

Do not hesitate to contact the Axpo team.

Personalized payment plan

No initial investment, financing tailored to you by paying in easy instalments: invest your capital in improving your business.



Benefits from the first invoice

- › The power factor is improved with values close to 1 from the installation of the equipment, improving the energy efficiency of the electrical installation.
- › Penalties for excess reactive in the electric bill are eliminated.
- › Increase of the installation capacity, avoiding overvoltage in the cables.
- › Less active power consumed.
- › Stabilizes network voltage: greater security.
- › Increase the useful life of your equipment.
- › Maintenance cost reduction.
- › Guaranteed profitability in short amortization periods (1-2 years on average).

You will improve the quality of your installation from the first day at the same time that you save.

Warranty

Selection of a wide range of products from suppliers technically tested to adapt to your needs.

We adjust to your needs

- › **Previous study** of your current installation
- › Free quote with supply of equipment or turnkey installation.