



BRIDGE ENERGY GmbH

Member of Bridge Group



B E G O

BRIDGE ENERGY GREEN OPTIMIZER





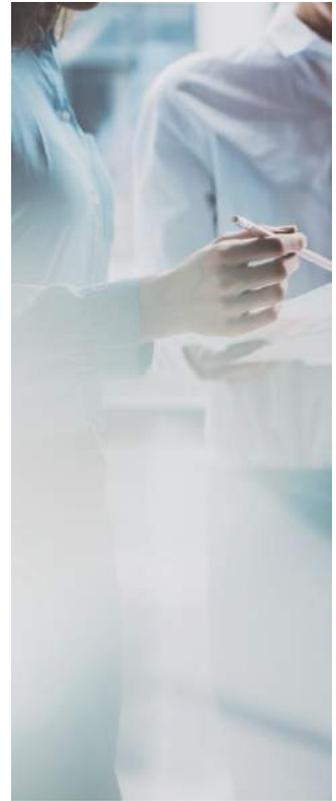
BRIDGE ENERGY holds innovation in its DNA.

The devices provided by BRIDGE ENERGY are born through the vision of providing to the market an innovative technology for the energy efficiency, aimed at maximizing its effectiveness with today lines and loads controlled and regulated by power electronics.

We keep searching for innovation, dedicating relevant resources to the constant implementation of "state of the art" products and services into our portfolio.



BEGO SYSTEM



The basis for the development of the BEGO device comes from audio technology.

Distortions are a back noise undesirable in the world of hi-fi audio which can be mitigated through an adequate filtering action.

To reach a noiseless high-quality sound, special filters are applied (transducers) that improve the global quality of the sound.

Similarly, in the electrical energy transmission there is an increasing number of "noises" caused by power electronics devices aimed at stabilizing and controlling the loads.

The filtering results obtained in the field of high-quality audio have been the basis of the development of a high performing filter aimed at reducing the disturbances and the losses of the energy transmission in an electrical network.

The **BEGO system** is a passive inductive filter with hybrid functions given by its capabilities to inject into the power flow some electromagnetic vectors in opposition of phase, utilizing some of the voltage derived from the incoming energy flow.

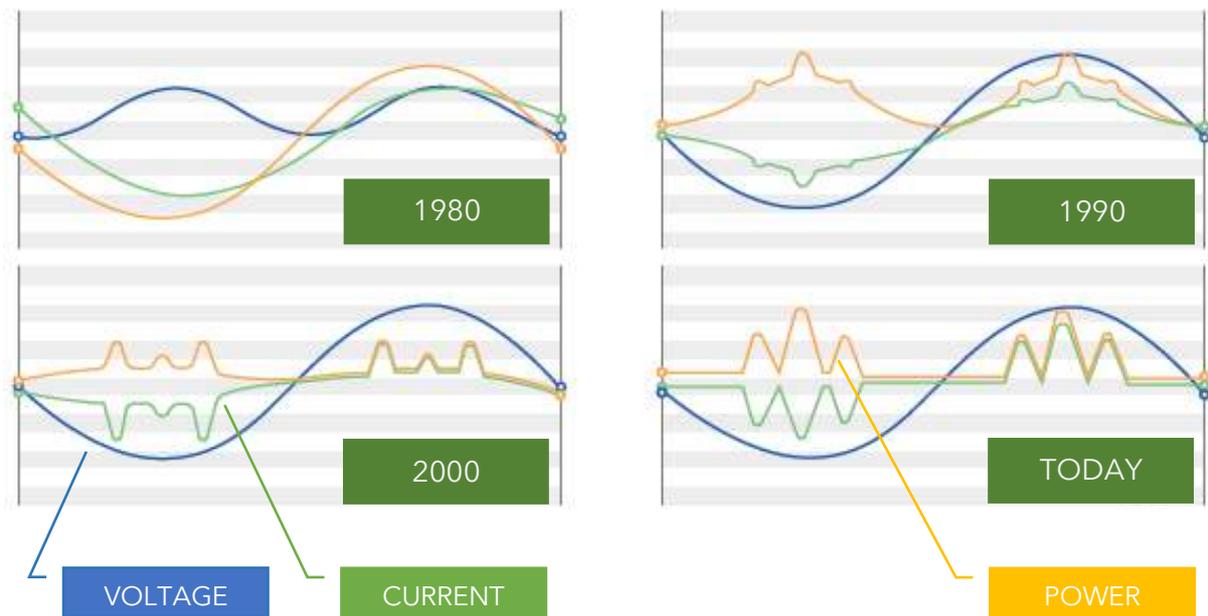
The inductance is not constant, but it changes dynamically its filter impedance value adapting to the power absorption of the electrical network, so maximizing its effectiveness.

Since the E-Power only has reactive components and contactors, there are no losses produced by the system and the self-consumption is practically undetectable.

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WHY USE IT?



Until the 80's, in all industrial and commercial sites the linear loads were largely prevalent; that is, electrical loads not influenced by power electronics.

At the end of the 80's the electronic components become smaller and more efficient. New effective technologies linked at the electronic control of power are emerging, which generate a positive impact on energy consumption but a negative one on the power quality.

Since the years 2000, the global electrical energy consumption is constantly increasing at a very fast pace; energy produced by renewable sources is increasing as well, with a negative impact on power quality too. Today in the production sites the nonlinear loads regulated by power electronics are largely prevalent.

It becomes essential to save energy through the optimization of energy transmission and the improvement of power quality.

BENEFITS



ENERGY EFFICIENCY:

reduces the losses and disturbances in the electrical network bringing true energy efficiency on the line; improves power quality and increases the life cycle of the loads.

REDUCTION OF EMISSIONS:

each kWh saved is equal to 0.450 Kg of lower CO₂ emissions in the atmosphere.

ENERGY SAVING:

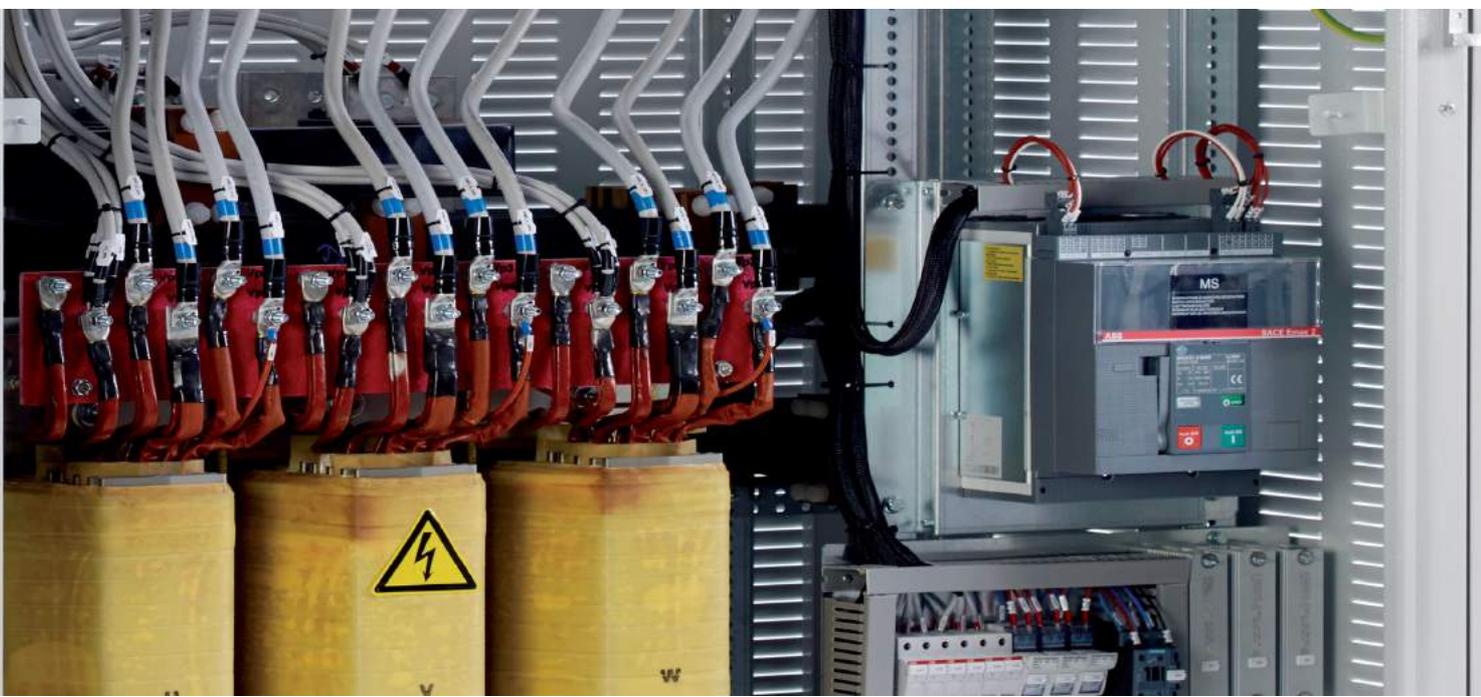
reduces energy consumption always ensuring the same amount of work, generating a financial saving between 3% to 7%, according to the kinds of loads which are connected to the line.

The results are scientifically measurable thanks to the patented Bypass system and the data retrieval and transmission ensured by the E-Controller device.

THE BYPASS

The patented Bypass system mounted on BEGO consists of special electro-mechanical breaker designed to perform 2 main functions:

- on one side always ensuring the continuity of the power supply to the loads, turning off the machine in a few milliseconds in case of malfunction on the device or the line;
- on the other side allowing the implementation of a series of switching between the 2 modes (machine on and machine off), according to a pre-defined protocol, so ensuring the possibility to perform a scientific measurement of the system performance.
- In fact, only through the scientific comparison between the power absorption in the 2 modes we can measure exactly the real energy saving generated by BEGO.



THE E-CONTROLLER



The E-Controller device is mounted inside the control unit of BEGO;

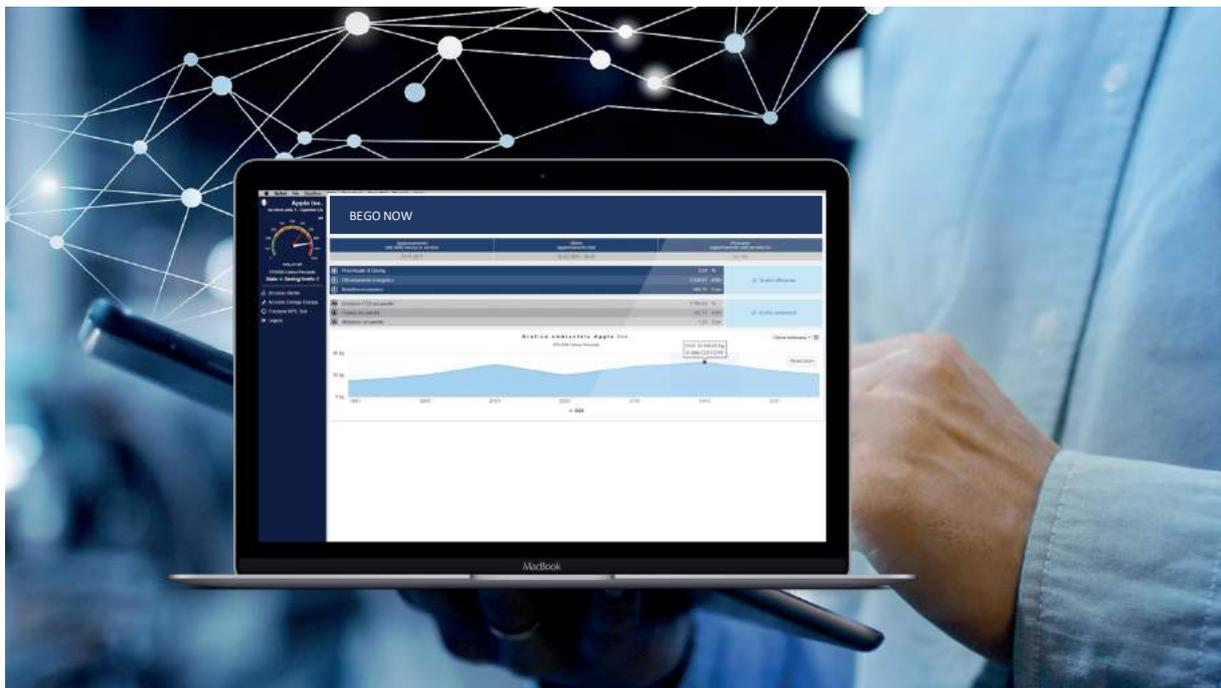
it allows the retrieval of the data collected by the power analyzers of the machine and the forwarding via web to our server.

In combination with the Bypass system, it allows data monitoring and control on the performance of the BEGO device.

SOFTWARE **BEGO NOW**

The interface software with BEGO, friendly, immediate, efficient and interactive. Through the utilization of BEGO NOW the user acquires 3 major possibilities:

- Check,
- update and
- control.





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EXPECT FUTURE!