



orange

START

ENERGY AUDITS

Energy audits aim to provide the client company with a detailed study of their energy consumption, divided into the various stages of production the departments. It permits the creation of an energy model that is distributed according to the logic of the cost or utility centres, the attainment of performance indices that are immediately comparable with benchmarks for the sector, and awareness of where it is necessary to intervene in order to render a stage of the production process more efficient.

An Energy Audit is the first step for a company wishing to identify opportunities for energy savings, to reduce its management costs and, where possible, to benefit from energy efficiency incentives (TEE, Conto Termico etc.).

An Energy Audit is also mandatory for companies identified in article 8 of Legislative Decree 102/2014.

Energy Audits pursuant to Legislative Decree 102/2014.



THE ORANGE START SERVICE

Whitenergy is able to perform Energy Audits:

- focused on compliance with regulatory obligations: for Legislative Decree 102/2014, to sign Energy Plus Service contracts, for access to Conto Termico Renewable Heat Incentives, for access to White Certificates, and for other such initiatives;
- focused on identifying the consumption of a department, a machine fleet or another area (compressor room, boiler room, etc.), through the use of portable data collection instruments and with representative measurement campaigns.

Whitenergy Audits are conducted by an EEM (Expert in Energy Management certified under UNI CEI 11339) in accordance with regulations stipulated in the UNI CEI EN 16247 standard.

Whitenergy also identifies energy efficiency interventions and presents economic plans with various financing possibilities.

WHO IS IT FOR?

This service is designed for all sectors: industrial, agri-food and tertiary sectors.



whitenergy

EFFICIENCY SOLUTIONS PROVIDER



CASE STUDY

The ORANGE START solution was used for a client under obligation by Legislative Decree 102/2014

The client is a large company that operated in primary chemistry. The customer's requirement is to comply with the obligations stipulated by Legislative Decree 102/2014.

Situation prior to intervention

For the preparation of the energy diagnosis, only Fiscal electricity and gas meters and meters located in a few production departments were the only available tools with which to carry out an Energy Audit.

Proposed solution and post-intervention situation

After a detailed data analysis process, Whitenergy created an energy model for the plant, identifying the energy performance index for each department and comparing it with the sector benchmark.

The Audit identified a series of actions to be implemented, some of which carried reduced investments and virtually immediate returns.

The most suitable monitoring system was then designed in collaboration with the client, based on the available budget. The aim of the system was to systematically monitor key consumption and to promptly intervene whenever a deviation from the target performance index is detected.

Two years later, thanks to the Energy Audit and minimal corrective measures suggested by Whitenergy, the customer has reduced its energy consumption by 7%.



ORANGE START solution for a client not under obligation by Legislative Decree 102/2014

The client required the best size and configuration for a cogeneration plant to ensure the energy independence of the plant.

Situation prior to intervention

The only data available derived from electrical absorption every fifteen minutes. There was no data relevant to steam consumption or the refrigeration chillers present. The factory works on different shifts depending on the season.

The customer intended to install a 1 MWe cogeneration plant with steam and hot water production.

Proposed solution and post-intervention situation

Whitenergy carried out a measurement survey using portable instruments on steam generators, refrigeration machines and compressors. Cross-referencing the data collected with the absorption curves gives the basic electrical load and reveals the machines from which it is generated. The plant's actual steam consumption was then checked, as well as hours of the day in which it is concentrated.

The audit showed a strong inefficiency in the compressed air network, which once repaired considerably reduced the plant's baseload. Considering the simultaneous use of electrical and thermal energy consumption, the most suitable solution for the production cycle was found to be a half-sized trigeneration plant.

Through the Energy Audit, the customer avoided installing an oversized system, which resulted in a 30% reduction in the value of the investment initially planned.

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