



TECNOVERITAS®

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**BOEM-S a Tool to
Measure the ISO 50001**

Part II - Fundamental Principles

White Paper

April 2014

3. The Technique of M & T

3.1. Fundamental principles

M&T is based on 3 main principles that form the feedback loop, resulting in control of energy use.

3.1.1. Monitoring:

Monitoring is based on regular acquisition of installation data, this is, information on the use of energy, in order to establish a baseline for energy management and understand the deviations from the established baseline. Its primary goal is to keep under review the "pattern of energy consumption" by analyzing the process variables identified during the establishment of the M&T process.

Image 1, 2 and 3 illustrate the hardware type used for power monitoring.



Img. 1 | System analysis of energy consumption mounted Central Trigeneration Climaespaço in the Park of Nations in Lisbon (installed in 2009)



Img. 2 | Ti's frame mounted on Climaespaço Center Trigeneration (installed in 2009).



Img. 3 | Software BOEM-S: monitoring the specific consumption and performance of a Diesel installation along a function of time (1 month).

3.1.2. Goals Establishment

The goals consist in the definition of the values from the desirable energy consumption for the management, and can be called internal Benchmark (to the lack of Benchmarks external to the organization).

The goals are based on previous knowledge acquired during the monitoring phase and the deep knowledge process. These goals should be possible to be achieved, so it should become an achievable challenge.

3.1.3. Report

The ultimate goal of M&T it is to allow the continuous monitoring of energy consumption, to achieve the objectives, and to verify the attained savings.

The reports issued automatically (without human intervention) by BOEM-S inform energy managers, enabling the decision making and corrective actions to be taken in order to achieve the objectives and goals.

