

## ENHANCEMENT OF ENERGY AND RESOURCES towards the overall and synergistic efficiency with the new ISO 50001:2011

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Energy is certainly one of the most critical aspects that the international community must face. The publication of ISO 50001:2011, concerning the energy management systems, is considered an important event as it's estimated that the international standard could have a positive impact on the use of about 60% of worlds energy.

ISO 50001:2011 “Energy management systems – Requirements with guidance for use” provides to organizations of the private and public sector, management strategies that will **increase energy efficiency, reduce costs and improve energy performances.**

The standard is applicable to organizations of any type and its objectives are:

- help businesses to use more carefully resources that consume energy;
- establish the conditions for transparency and facilitate communication on the energy resources management;
- promote energy management best practices and reinforce good behavior in this sector;
- guide companies in the energy assessment and focus on the construction of high-energy performance new technology;
- provide a scheme to promote energy efficiency throughout the supply chain;
- support the improvements in the field of energy management in the context of greenhouse gases emission reduction project;
- enable integration with other management systems such as environment, safety and quality.

The correct application of the law contributes, in short, to a more efficient use of available energy sources, to a greater competitiveness and to the reduction of greenhouse gas emissions and other related environmental impacts.

The benefits of implementing the Energy Management System in accordance with ISO 50001:2011 can be summarized in the following four points:

- More efficient use of energy and cost savings in the energy field
- Reduction of emissions and protection of the environment
- Sustainability of economic activities
- Improving of company's image.

It's interesting to consider how the joint or otherwise consequential implementation of the ISO 50001 scheme (Energy Management System) with the application of Carbon Footprint projects (ISO 14064), Life Cycle Assessment (LCA – ISO 14040 and ISO 14044) and LEED (U.S. Green Buildings scheme) allow us to obtain significant economic, environmental and corporate image benefits, even for small and medium reality, as the wider context of the use and exploitation of the energy is thus confronted with a multiple oriented streamlined approach (extended industrial processes, building, product, etc.).

In addition it should be noted that the implementation of the new standard is easily integrated with other certification schemes already applied in the company, in order to point to the management of each company's process about quality, environment, safety, ethics, and of course, energy.

The perfect integration trace a path through the resources that the company needs including human resources. Each scheme shows references to them where scientific protocols such as BBS (Behaviour Based Safety ) and the Pedagogy of organization which can be perfectly integrated. The latter provides a mapping, measurement and management of skills and abilities in the service of the system by assessing the organization as a *social macro world* in which you develop your *world of homogeneous working groups* and increases the *self-employed* in their own *microworld*.

The synergies and links that occur between the different levels are the values and cultural flows that the company actively strive for continuous improvement. An effective tool to support the described system is the *training* in all its forms, which is also one of the pillars of the BBS approach which objective is to define, observe, record and measure behaviors in order to study them, identify the processes and be able to modify them by activating the transformation that powers the business *target* and performance shared at multiple levels.

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The Team of IDRA S.r.l. is at disposal for any further deepening of the topics treated in this article, and in general, to support businesses in designing, realizing and maintaining the systems involved.

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