



INTERNATIONAL WORKSHOP ADVANCES IN CLEANER PRODUCTION

"KEY ELEMENTS FOR A SUSTAINABLE WORLD: ENERGY, WATER AND CLIMATE CHANGE"

Energy Efficiency Management

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Abstract

Starting from the evidence that, in their forms of natural resources extraction, transformation, transportation, storage and energy use, the energy systems interfere in socio-environmental sustainability components, this work establishes the direct and irrevocable correspondence between kilowatt-hour (kWh) or tons of oil equivalent (toe) produced units, which their equivalent pollution emissions, like tons of carbon dioxide (tCO₂), nitrogen oxides (tNO_x), etc, or human contingents that have to leave their habitat to hydroelectrical plants, etc. In front of this absolute certainty and the high industry energy demand, it's revealed the crucial necessity of the industrial systems for sistematic **energy efficiency** programs.

This article also demonstrates that, in its activities of planning, production and treatment of final products and waste (of increasing entropy) and in its high level activities, as research and development of new tecnologies, processes, materials and products whose result in best efficiency of resources, the Cleaner Production has connection with the energy and with the **energy efficiency**.

Keywords: cleaner production, energy efficiency, energy efficiency management.
