

## Lighting

Lighting has a substantial impact on the environment, accounting for up to 40 % of electricity used in non-residential buildings. Major energy savings can be achieved. Examples from the field have shown that between 30 % and 50 % of electricity used for lighting could be saved investing in energy-efficient lighting systems. While the environmental impact of most products occurs during resource use, production, transport and disposal phase, lamps have the highest environmental impact during their use phase - this can reach up to 90 % depending on the lamp type [European Lamp Companies Federation].

Thus, it is worthwhile to consider energy-efficient lamp types for replacement or new installations. With the procurement of lamps an ergonomic, environmentally sound and economical lighting of the working place should be assured. A new lamp can be considered eco-efficient if it achieves the same performance with a lower energy consumption. Besides the initial costs, the energy consumption as well as the life time is considered in the economic evaluation.

In this guideline module fluorescent lamps, compact fluorescent lamps (energy saving lamps), halogen lamps, sodium lamps, metal-halide lamps and electronic ballasts are examined. In the following section the energy and environmental labels, which are relevant for the purchase of lamps, are introduced briefly. Then the possibilities for considering labels in call for tenders are examined.

Tips for energy savings by purchasing efficient lamps are also specified. In addition some references are given, how the power consumption in the office everyday life can be decreased by implementing efficient lighting solutions.

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