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ENVIRONMENTAL IMPACT ASSESSMENT OF ENERGY SUPPLY SYSTEMS

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Abstract

To be put into practice the concept of sustainable development there is a need to draft a general and flexible methodology by a systematic approach, which must consider specific conditions of observed systems. When considering energy supply systems their environmental impacts have an important role in the context of assuring human sustainability. For this goal, there is a need for specific environmental indicators to succeed rating environmental impacts of energy supply systems. By assessing mentioned impacts, it is possible to establish certain aims, to quantify them, to proof potential effects of specific measures needed to be introduced, and by this to support finally the decision-making process. Technology Assessment, as an instrument, which supports decision-making processes, can be applied in this regard. At the present time of ongoing debates regarding sustainable energy supply systems needed in the future it is in great demand to analyse and assess their environmental impacts. In this context, the European Green Deal has been adopted to try overcoming the challenges of environmental pollution and of climate change to succeed transforming energy supply activities into resource-efficient and sustainable ones. Corresponding methods for environmental impact assessment must be used, the ones based on establishing specific environmental footprints will be applied in present contribution for assessing environmental impacts of energy supply systems.

Key words: energy supply systems, environmental footprint, environmental impact assessment, sustainable development, technical systems

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