

Preparing for an energy-scarce future: questions and answers for the communal level and beyond

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Topic

Resilience

Title of the Paper

Preparing for an energy-scarce future: questions and answers for the communal level and beyond

Form of Presentation

Presentation

Short Description (maximum 2500 characters)

There is growing evidence that the supply of essential energy sources (especially oil and somewhat later natural gas) will be declining in the near future with far-reaching consequences for human societies.

Whereas technology optimists claim that technology will solve the problem (in the sense that fossil energy sources can easily be substituted by alternative technologies) serious doubts remain that this shortfall can be compensated that way. Thus, the net energy available for societies - which determines the level of services and welfare a society can provide - will be declining in accordance with the shrinking supply of the main fossil fuels.

This hitherto unprecedented scenario results in great challenges for all actors of society, especially for governments at all levels. Therefore, it is becoming of increasing importance to deal with the consequences of this looming energy crisis more intensely, to discuss reasonable options for action and to prepare for this new era.

After giving an outlook of the energy future, and explaining the probable decline of net energy, we discuss possible consequences of this energy crisis in the sectors transport, spatial structures, agriculture and economy. Furthermore, we detail options for action in these sectors, especially aimed at the specifics of local governments, and present recommendations for political reforms for the higher levels of government. The here presented results were obtained in the course of the project "Powerdown – Developing Scenarios and Options for Action on a Local Level in the Light of "Peak Oil" and Climate Change" (funded by the Austrian Climate Fund KLIEN). Methodically, the project was mainly based on stakeholder workshops for the respective sectors mentioned above. Finally, we discuss open questions and present an outlook for further research.