

Neue Energien 2020 - 2. Ausschreibung



Klima- und Energiefonds des Bundes – managed by Österreichische Forschungsförderungsgesellschaft

Projektnummer: 822099

ZERsiedelt

Energy relevant aspects of building and future of Housing and Settlement-Structures in Austria

Synopsis englisch

This project aims to generate new data and know-how about grey energy for housing and settlement-structures including infrastructure like roads and services (water, electricity, sewage etc.). Selection of representative constructions and building periods will allow for projection to Austria as a whole and data will be provided by a tailor-made Excel-Tool in order to be used for discussion of spatial planning and building options. The analysis of public support measures will lead to recommendations for an ecological orientation of these measures. Furthermore future scenarios, particularly for „Single-family-settlements“, in the context of a possible energy-crisis (“Peak Oil”, sudden rise in energy-prices) will be discussed.

Abstract

The project aims to generate new know-how in the field of „Housing and Settlement-Structures in Austria“ with the objective to introduce this knowledge into Austrian Policy of energy and climate.

The following items are planned within the project:

1. **Balance of energy-use (grey energy)** in connection with
 - a. Construction of dwelling-houses according to building-periods (eg. decades after 1961) and according to types of buildings (e.g. 1-2 family-houses, 3-10 flat-units; greater than 11 apartments in one building) and according to representative constructions: production and transport of all building materials, energy for construction vehicles and plant.
 - b. Infrastructure required to connect to a new housing development: including roads and services (water, sewage, electricity, gas, distance-heating, telecommunication and street lighting).
2. **Investigation of public „Support Measures“**, which financially assist these developments and occupants (eg. public sponsoring of housing, infrastructure budgets, drinking water, sewage and energy systems). Creating recommendations of an ecological orientation for these “Support Measures”.
3. Discussion of **future scenarios, particularly for „Single-family-settlements“, in the context of a possible energy-crisis (“Peak Oil”, sudden rise in energy-prices)**:
Can development of these dwelling-structures become sustainable?
How could/would/should these developments be evolved or designed?

The **results of the project (scientific studies/publications, an Excel-tool for calculation of grey energy and a scientific congress)** will be addressed to a mainly scientific community and to opinion leaders close to politics (civil servants, urban and regional planners, community leaders). Ultimately the project aims to influence politics itself and the basis of decision making of Austrian climate and energy policy.

Project leader

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