

Energy use from a consumption perspective - How can it be done and what is it good for?



Data of Your Paper



Topic

- Resilience
- Lifestyle
- Building
- Resources
- Tourism
- Energy

Title of the Paper

Energy use from a consumption perspective - How can it be done and what is it good for?

Form of Presentation

- Poster
- Presentation

Short Description (maximum 2500 characters)

This paper aims at presenting methods to track down energy use to the consumption of products on large scale. Furthermore the benefits of such a perspective in contrast to conventional analysis will be discussed.

While it is clear that resource and of course also energy use is a result of the demand for goods and services, information and understanding on this interrelation is not widespread. Most statistics and also scientific research on energy use only consider direct energy flows of certain entities, regions or groups and do not include upstream energy use.

Ignoring those upstream flows has several implications on how the topic of energy consumption is analysed and how the problems associated with it are dealt with.

- On country level energy statistics only show the direct energy consumption of a nation or region. Some countries are therefore considered to be very energy efficient in terms of energy use per GDP just because their production shifted towards less energy intensive goods or services and energy intensive goods are imported. This phenomena is especially relevant in the light of climate policy regimes that do not cover all nations.(Carbon leakage)

- When it comes to studies on the energy conservation potentials of households most studies concentrate on direct energy services like electricity, heat or fuel use. However, more than half of the energy use of households is actually embedded in the goods and services they consume. Including and reporting those indirect flows might increase the awareness of consumers which could increase the chances of energy efficient products to compete on the market.

- Looking at a single product, energy conservation potential is often understood as less

energy input for certain processes within the supply chain. However looking at the whole supply chain of products might reveal much higher saving potentials. E.g. through avoiding energy intensive processes or goods by switching to alternative materials.

Here we want to present one approach to calculate the energy use of Austria from a product perspective using input output analysis. Being aware of the high aggregation level with all its shortcomings we will present some applications of a Hybrid-Life-Cycle-Assessment that combines the input output model with process analyses. This method will be used for further research to identify and assess energy conservation measures derived from a product based view on consumption.

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