

Transitions and transition paths: the road to a sustainable energy system

Coordinator:

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Involved organisations:

Technische Universiteit Eindhoven
Universiteit Twente

Program term:

2003-2008

Summary of problem definition:

General aim is providing long term perspectives on the development of sustainable energy systems.

Problem statements:

- Which are the main barriers and opportunities for a transition to a sustainable energy system?
- How can this knowledge on barriers and opportunities be used for constructing socio-technical scenario's of potential future energy systems for the selected technological domains (electricity systems, bio-fuels) and how can transition paths be identified?
- What are the consequences for (the options for implementing) policy and policy instruments?

While current technology policies are mainly focused on single technologies and single regimes, this project will produce insights about linkages, feedbacks, and spillovers between multiple regimes and technologies. It complements existing policy instruments by expanding the scenario methodology and it also can be instrumental in the identification of transition paths, especially in the area of biofuels and electricity systems. The results can be used in particular to enhance the strategic selection of practical experiments of new technologies.

Subprojects:

- Energy systems in transition: a multi-regime analysis of the energy system 1970-2000, R.P.J.M. Raven.
- Managing bio-fuels, J. Ulmanen.
- Networks of the future, J.J. Meeuwssen.
- Sociotechnical scenarios: development of a new tool to explore and stimulate transition to a sustainable electricity system, P.S. Hofman and B. Elzen.

Results:

- See the NWO-website for a full list of publications, www.nwo.nl/energieonderzoek