

# Analyzing energy transition scenarios for 2030 using the System Dynamics Approach

**Tendering Institutes:** Institute for Future Energy Consumer Needs and Behavior (FCN), Junior Professorship of Energy Resource and Innovation Economics (JERI)

**Begin:** immediately / by arrangement

**Duration:** 6 months

**Keywords:** System Dynamics Approach, Vensim, Energy Balance Sheets, Energy Transition Scenarios

## Topic

European and additional German goals regarding the mitigation of greenhouse gases will change the structure of the supply and demand of end energy until 2030. Drivers for this shift are goals for the share of renewable energies among end energy, changing consumer behavior, and coal and nuclear phase-outs.

You will perform a systemic analysis based on economic energy balance sheets using the System Dynamic Approach. You will develop a model using the software Vensim that depicts the energy supply and demand structure of energy balance sheets and energy markets. Using this model, you will analyze an energy transition scenario for the year 2030 for its systemic implications.

## Qualification

You are studying business administration, business administration, and engineering, electrical engineering or mechanical engineering (or a similar course of study) with a special focus on energy-related topics. You are interested in an interdisciplinary challenge, consider yourself a quick learner, and dispose of good analytical skills. First experiences in working with energy balance sheets, Vensim, or Python are advantageous but not necessary.

## Our Offer

Our offer is to join a versatile, highly motivated working group with international character within one of the largest research institutions in Europe as well as the opportunity to shape the energy system of the future actively.

## Contacts

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**We are looking forward to your application!**