

How will the energy transition affect regional business locations? An analysis of the value-added and employment effects through input-output analysis

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: Input-Output-Analysis, Computational General Equilibrium, Regional Input-Output-Tables

Topic

European and additional German goals regarding the mitigation of greenhouse gases will affect the regional business locations until 2030. Energy-intensive businesses depend on affordable and secure electricity supply. The provision of electricity is undergoing a change due a shift in generation of electricity. 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 develop regional Input-Output-Tables for locations specifically affected by the upcoming coal phase-out. For regionalization, different methods are available. Based on the regional input-output-tables an assessment of the implications of regional energy transition on the economic sectors should be performed. These implications can be quantified e.g. in the form of added value and employment effects in different economic sectors. Different methods can be applied, such as Input-Output or Computational General Equilibrium (CGE) models.

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 conducting an input-output-analysis, e.g. using CGE methods 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.

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We are looking forward to your application!