

Heat transition strategies in Balkan and Eastern Europe

An empirical study

Department: Copernicus Institute of Sustainable Development

Research group: Energy and resources

Supervisor: Dr. Javanshir Fouladvand

Email address: j.fouladvand@uu.nl

Project Description

This research project aims to gather and analyse available data to understand (and potentially improve) the heat transition strategies in Balkan and Eastern Europe. The current ongoing crisis in Eastern Europe has shown the heavy dependence of the European energy sector, specifically the built environment, on Russian natural gas. Particularly in Balkan and Eastern Europe, this crisis and its impacts bring up discussions around the future of natural gas and different possible options to address the heat demand, for instance: (i) switching to/increasing the share of other fossil fuels (e.g., coal) (ii) increasing natural gas import from other European countries (e.g. the Netherlands, Norway and the United Kingdom), (iii) new forms of energy imports (e.g. liquid natural gas (LNG) from North America or biogas from South America), and (iv) increasing the share of renewable thermal energy resources (e.g. geothermal wells, bio-energy and heat pumps). **This research aims to collect and analyse the available data on such strategies in different countries to provide a sustainable and energy-secure heat transition roadmap for reducing natural gas consumption in Balkan and Eastern Europe.** Therefore, the research involves collecting extensive data on current and future heating systems in different countries, analysing (and developing) strategies and scenarios for the heat transition in each country, and finally integrating these strategies to provide a heat transition roadmap for the entire region. **This project could bring insights for policy-makers (both on national and European levels) in fostering heat transition and reducing natural gas consumption.**

Job Requirements

A highly motivated student with fluency in English and experience in (or willingness to learn) data collection (e.g. desk research and literature review) is a must. Experience performing research on related topics (e.g., energy policy, governance, economics and behavioural studies) is a plus. Knowledge and experience with statistical software and applications (e.g., R. and Python) are highly appreciated.