

# Assessing the international trade, jobs and skills of the future international hydrogen market, and the transition from incumbent energy systems

## About the opportunity

The University of Strathclyde's Centre for Energy Policy (CEP) is offering an exciting opportunity for a funded PhD project which aligns with CEP's current research investigating the emerging low carbon hydrogen economy and the potential impacts on the global economy and international trade. This PhD project will add value to CEP's current work exploring the green jobs market, the macroeconomic implications of decarbonisation and the emerging capital investment in hydrogen systems in the UK. Given the emerging plans to extend hydrogen pipelines across the UK and Europe, the UK and Scottish policy interest in becoming significant producers of hydrogen, and the developing industrial interest in hydrogen use for industrial, domestic and transport applications, this area is of increasing interest in the policy discourse on decarbonisation. An understanding of the systems and macroeconomic dynamics is vital for informing these policy and decision making debates with real evidence and analysis.

The Scottish government identify the need for action in this area in the Energy Strategy and Just Transition Plan, which notes:

*"...the potential for Scotland to develop a hydrogen export economy, which we expect would further boost GVA from the low carbon and renewable energy sector as a whole and help to reduce the impact of a decline in the export driven oil and gas sector."*

An associated issue is the jobs and skills requirements of the emerging hydrogen economy while managing the impact of reducing employment in contracting energy markets. The green jobs market, the macroeconomic implications of decarbonisation and the shared experience in other countries with similar or divergent energy market and employment dynamics is an active area of research for CEP. In particular, the experience of countries like the UK, Norway, Brazil and the United States of America all have fossil fuel and emerging low carbon energy markets and challenges relating to jobs and skills. An understanding of the similarities, differences and what has worked in terms of policy between these countries will provide valuable evidence for future decision making.

The Scottish Government's Just Transition Plan also notes:

*"This draft Strategy sets out key ambitions for [...] a just transition by maintaining or increasing employment in Scotland's energy production sector against a decline in North Sea production."*

In this PhD project you will have the opportunity to train in evidence review methodologies, systems dynamics approaches, and computable general equilibrium modelling (CGE) methods applied in a political economy context.

This PhD project will feed directly into the evidence need identified by emerging UK policy, providing significant policy impact, alongside the generation of world class research output.

## Why undertake a PhD at the University of Strathclyde's Centre for Energy Policy?

The Centre for Energy Policy brings together economy-wide modelling, political economy and public policy analysis experience and expertise to understanding the wider economic and societal outcomes of a range of decarbonisation actions at local, regional, national, and international levels and how economically and politically feasible pathways to net zero can be identified and shaped. Through UKRI and philanthropic funded projects we have developed, and continue to extend, a recognised body of evidence around the economy-wide impacts of industrial decarbonisation efforts in the UK including the deployment of technologies such as carbon capture, utilisation and storage and the production and the production and use of ocean renewable energy and green hydrogen.

As a CEP PhD researcher, you will be able to draw on this expertise as part of your PhD research and develop and apply your learning through the live research projects that CEP leads, with focus on real and measurable impact with key policy decision makers within the UK and internationally. You will also have access to the [Faculty of Humanities and Social Sciences Graduate School](#) which brings together postgraduate research students from a variety of disciplines, as well as colleagues in the [School of Government and Public Policy](#) in which CEP is based.

Find out more about CEP and our research [on our website](#)