



PhD Position

The engagement of households with demand response interventions: Economics incentives and behaviour

part of the Marie Skłodowska-Curie Actions Doctoral Network on “Consumer Energy Demand Flexibility in Electricity Use” (CoDeF)

- ***Do you want to gain training to deliver a sustainable, just, and consumer-centric energy transition?***
- ***Do you have solid quantitative and analytical skills and interest in behavioural economics that you want to develop further in an international setting?***

Description

Consumers and citizens will play an important role in the transition to net zero carbon energy through flexible energy use and matching demand to available renewable energy supply. Nonetheless, technical, economic, and societal challenges currently hinder consumer participation in energy markets.

In this project, the PhD student will focus on the incentives and behavioural dimension of this topic: how to incentivise consumer flexibility through behavioural change and design effective demand response interventions. Consumer energy flexibility is being rapidly acknowledged as a crucial tool as Europe aims for a just and sustainable energy transition to achieve climate neutrality and energy security.

In particular, the PhD student will use behavioural experiments and other tools of economic analysis to understand what behavioural and structural conditions can facilitate/hinder household engagement with demand response contracts, customisation and automation of energy flexibility. This will be done with considerations for heterogeneous preferences, needs and priorities of diverse households (motivations, gender, age, geography, minority and vulnerability status, etc.). The aim of the research will be to assess the potential for integrating automation and customisation (e.g., through machine learning) in the design of incentives for flexible residential load while limiting risk factors for energy poverty, using behavioural economics.

This PhD position is one of 15 positions funded under the MSCA Doctoral Network (DN) Consumer Energy Demand Flexibility in Electricity Use (CoDeF). More information about the project can be found [here](#). Your supervisor will be Dr. Marta Talevi and you will join the PhD Programme in Economics at [UCD School of Economics](#). You will also become part of the [UCD Energy Institute](#), a University-wide hub that fosters interdisciplinary links among energy-related projects. Which hosts a dynamic community of internationally renowned researchers. Our University hosts a diverse community with members from different



countries and disciplines, and we welcome candidates that contribute to and enjoy this diversity.

We foresee two secondments during this PhD trajectory: subject to confirmation, this would consist of an academic secondment at Ruhr-Universität Bochum, in Germany, supervised by Professor Andreas Löschel and a non-academic secondment at the Sustainable Energy Authority of Ireland (SEAI) supervised by Dr. Hannah Julienne. In addition, the doctoral network aims to provide extensive training in research and transferable skills, centred around annual workshops in Dublin (IE), Dübendorf (CH), Copenhagen (DK) and Bochum (DE).

Requirements

You must be able to demonstrate:

- Master's degree in economics or related discipline (must have been awarded by the agreed-upon starting date of the PhD).
- Strong quantitative and analytical skills.
- Very good written and spoken communication skills in English.
- In line with Marie Skłodowska-Curie Action requirements, eligible applicants to PhD programmes in Ireland must not have lived in the Republic of Ireland for more than 12 of the last 36 months.

Desirable:

- Training and/or experience in behavioural and experimental economics.
- Training and/or experience in economic data analysis using R, Stata, Python, or similar.
- Prior research experience, especially in behavioural economics, energy, and/or environmental economics.
- Interest and enthusiasm for energy and climate policy.

Doing a PhD at UCD requires English proficiency to ensure that the candidate is able to communicate and interact well, participate in English-taught Doctoral Education courses, and write scientific articles and a final thesis. For more details please check the [Graduate Schools Admission Requirements](#).

UCD PhD Programme in Economics

The successful candidate will be part of the UCD School of Economics PhD programme. More information can be found about the programme [here](#).

Application procedure



Are you interested in this vacancy? To receive full consideration, please apply before **10 August 2024 23:59** Irish time via email to marta.talevi@ucd.ie

We will contact shortlisted candidates for an interview.

The starting date will be September 2024 or later, as appropriate.

Documents that must be included in the application:

- Motivation statement, including a paragraph outlining how your research interests fits in the areas outlined in the job advertisement (max. one A4 page);
- CV;
- Contact details for two references;
- One writing sample.

Official transcripts may be requested in further stages of the selection process. A pre-employment screening can be part of the selection procedure. Applications are via email only. We will not process applications sent by post.

For more information about this vacancy or the application procedure, please contact Marta Talevi: marta.talevi@ucd.ie.

More information on University College Dublin

University College Dublin is one of Europe's leading research-intensive universities, where a comprehensive suite of strong disciplines forms the foundation of high-quality interdisciplinary research, scholarship and innovation. UCD is the national leader in research funding, attracting quality investment that has helped the university establish a reputation as a world-class destination for leading researchers. UCD is ranked within the top 1% of higher education institutions worldwide and is the largest and most global University in Ireland: 1,800 academic staff across a range of disciplines; 1,600 PhD students, producing 22% of Ireland's PhD graduates each year; 33,000 students (29% international students comprising 144 nationalities). The project will be based in UCD Energy Institute, a hub of energy education, research, demonstration, collaboration (with industry and others), and outreach at UCD, and will be enrolled in the PhD programme of the UCD School of Economics, which offers rigorous training and expert supervision, designed to prepare students for top-level jobs in academia, institutions, and the private sector.