

Prof. Hannah E. Daly

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Professional summary

Professor at University College Cork's Environmental Research Institute. Leads active research at the "science-policy interface", informing sustainable and least-cost climate mitigation pathways, nationally and globally. Advisor on climate and energy policy to policymakers, industry, and the media. Writes "At a Time of Climate Crisis" column for the Irish Times newspaper. An engaged and innovative educator, winner of the 2021 UCC President's Award for Excellence in Teaching and currently supervising five Ph.D. students and lecturing to undergraduate and postgraduate students on the sustainable energy transition.

Education

2009 – 2012	University College Cork	Doctor of Philosophy (Ph.D.), funded by the Irish Research Council EMBARK Scholarship. "Transport energy demand: techno-economic modelling and scenarios for Irish climate policy".
2004 – 2009	University College Cork	BSc (Hons) Mathematical Sciences 2:1 result
2007 – 2008	University of California, Santa Cruz	University of California Scholarship

Professional Appointments

2022 – present	University College Cork	Professor
2019 – 2022	University College Cork	Lecturer in Sustainable Energy Systems Modelling (above the merit bar)
2015 – 2019	International Energy Agency, Paris	Analyst for World Energy Outlook. Agency focal point on Energy Access and SDG7 collaboration.
2012 – 2015	UCL Energy Institute, London	Research Associate in Energy Systems Modelling. Lead developer of UK-TIMES Model

Periods of maternity leave:

November 2015 – April 2016
August 2018 – July 2019

Research

Research profile

I lead a team of postgraduate and post-doctorate researchers who focus on modelling sustainable energy transitions for Ireland. I lead the development and application of the [TIMES-Ireland Model \(TIM\)](#) which supports national policy and dialogue related to energy systems mitigation pathways. As part of this, I engage and collaborate with state and research bodies, including SEAI, ESRI, TII, Dept. of an Taoiseach, DECC, DAFM, and DTTAS, and a network of national and global climate mitigation modellers.

Active research projects

Project	Funder	Description	Funding	Role	Period
PhD award – Ankia Gaur	MaREI, SFI	Modelling sustainable energy transitions for Ireland: Capturing technological, economic and social realities.	€140k	PI	2020-24
Carbon Budget Research Fellowship	Climate Change Advisory Council/EPA & MaREI	Modelling Ireland's path to a net-zero energy system: Informing carbon budgets to 2050.	€215k	PI	2021-23
5YAR - Academic leader – chapter lead	EPA	5 Year Assessment Report on Climate Change - Volume 4: Realising the benefits of transition and transformation	€209k	PI	2021-23
CAPACITY (Climate Action Pathways & Absorptive Capacity)	Department of Communications, Climate Action and Environment	Energy modelling services to the Technical Research and Modelling (TRAM) group – scenario analyses using TIMES, PLEXOS and LEAP. Support in developing national policy and negotiating targets with EC.	€2.35m	Co-I	2018-22

Pedagogical profile

Research supervision

- PhD supervisor:
 - Xuebing Wang, UCL. *The Impacts to the International Aviation Industry by including it to the EU-ETS*. Graduated 2019.
 - Jason McGuire, UCC. *Modelling residential sector in energy systems models*. 2019-23 (expected)
 - Ankita Gaur, UCC. *Modelling sustainable energy transitions for Ireland: Capturing technological, economic and social realities*. 2020–24 (expected)
 - Vera O'Riordan, UCC. *Passenger transport energy demand in the context of Ireland's Climate Action Plan*. 2019 – 2023 (expected)
 - Daniel Padrone, UCC. 2020 – 24 (expected)
 - Vahid Aryanpur, UCC. 2019 - 22 (expected)

- Masters research supervision
 - Primary supervisor to MEngSc and MSc research dissertations of seven students to completion at UCL and UCC.

Current undergraduate and postgraduate lecturing

- NE3003 (Sustainable Energy, UCC), and NE5003 module coordinator (since 2019)
- NE1001 (Introduction to Energy Engineering, UCC), module coordinator (since 2019)
- NE4001 (Energy Systems Modelling, UCC), module coordinator (since 2019)

Past lecturing:

- BEGC15 (Modelling Methods and Scenarios, University College London), 2014-2015 (teaching assistant)

Contribution & Outreach

Contribution to University and academic community

- Chair of UCC School of Engineering Outreach Committee.
- Supporter of Women in STEM:
 - Keynote speaker, J&J WiSTEM2D Awards Ceremony, Jan 2022
 - Ran “Inspiring Women in Climate and Energy” event in March 2020 in collaboration with UCC Women in STEM society with a panel of senior women
 - Mentor for undergraduate and postgraduate students
- Member of editorial boards of *Renewable and Sustainable Energy Transition* and *Energies* journals.
- Peer reviewer for journals including *Nature Climate Change*, *Climate Policy*, *Applied Energy*, *Sustainability*; external reviewer from grant award bodies.
- PhD viva external examiner for KTH, Sweden
- Auditor of the UCC Mathsoc in 2005-06, running the Irish Mathematics Student Conference in 2006 and winning *Bene Merenti* and *Society of the Year* awards.

Science-policy interface and public outreach

- Member of Climate Change Advisory Council Carbon Budgets Committee, 2021
- Member of National Economic & Social Council (NESC) working group on Agriculture and Climate
- Member Community Foundation for Ireland's Advisory Committee on Climate & Biodiversity
- Advisory board of Linte na Farraige (Creative Climate Action), National Land Use Evidence Review (GMIT, EPA), DIAMOND (H2020 proposal).
- Frequent engagement with policymakers (both politicians and senior civil servants) on climate mitigation policy across many Irish government departments,
- Invited to give expert testimony by Joint Oireachtas Committee on Climate Action three times in 2020 and 2021.
- Irish Times columnist and frequent [op-eds](#) in leading national newspapers and [media interviews](#).

Scientific publications

See [Google Scholar](#) profile for up-to-date list