

## UCD Energy Institute welcomes the Programme for Government “Our Shared Future”

*June 2020*

UCD Energy Institute welcomes the Programme for Government “Our Shared Future” (June 2020). This programme sets out ambitious aims for the new Government as we aim to rebuild our economy following the shock of the Covid19 pandemic.

We support the objective to “contribute positively towards a wider global response to how we shape the post-COVID recovery and also to how we lead as an exemplar in decarbonising our economy.” We strongly believe that decarbonisation of our economy must remain a priority as we rebuild our economy and society. The new Government will face significant challenges in the coming years, and how we choose to address the economic and social recovery will set the framework for future events and crises. This Programme for Government demonstrates a strong ambition to tackle the impending climate crisis as we recover from the current health crisis.

In recent months we have seen how the restrictions to movements and economic activity have impacted our environment. Researchers at the UCD Energy Institute have investigated the implications of the dramatic fall in economic output associated with the COVID-19 crisis for EU 2030 emissions reduction targets<sup>1</sup>. This analysis indicates that since existing policy measures could now achieve the 40% emissions reduction target sooner than 2030, there is now an opportunity to increase our ambition in support of the emissions reduction targets of 50-55% in 2030 outlined in the European Green Deal.

We welcome the focus within the programme for government on the “the vital part played by research as the basis of sound policymaking across Government”. There is continued need for strong research in Ireland, in particular in areas related to climate and energy. In Ireland we face unique challenges in terms of our reliance on imported fossil fuels and our weakly interconnected electricity system. Energy systems research needs to be a continued area of focus during the term of this Government where we can explore the opportunities for Ireland in developing our massive renewable energy potential.

At UCD Energy Institute, we are actively engaged in research activities that supports the decarbonisation of our energy system and can support the Programme for Government in this area. The Energy Systems Integration Partnership Programme ([ESIPP](#)) is funded by Science Foundation Ireland (SFI), Industry and philanthropy, recognising the importance of this type of research and expertise to a wide range of stakeholders. It brings together a multidisciplinary team across 5

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<sup>1</sup> [https://energyinstitute.ucd.ie/wp-content/uploads/2020/05/Covid-and-EU-climate-targets\\_-UCD-May-2020\\_EI.pdf](https://energyinstitute.ucd.ie/wp-content/uploads/2020/05/Covid-and-EU-climate-targets_-UCD-May-2020_EI.pdf)



research institutions (UCD, TCD, NUIG, ESRI and DCU). The research spans a number of the aspects outlined in the Programme for Government including:

- **Neighbourhood scale retrofit**, including mapping of areas suitable for neighbourhood retrofit. One of our PhD students has worked with SEAI in this area during his placement with the organisation assisting with the development of their mapping capabilities.
- **Electrification of Heat and Transport**, including analysis the impact of high levels of devices connected to the distribution network and what that means for system reinforcement and system management.
- **Green Hydrogen as a future fuel** – hydrogen, combined with offshore wind, provides a huge opportunity for Ireland to take advantage of the massive potential on Ireland’s Atlantic coast<sup>2</sup>. The development of floating wind technologies combined with the production of hydrogen provides Ireland with the opportunity to completely decarbonise our energy system and to become a net exporter of energy.
- **Just Transition** – looking at the closure of peat generating stations in the midlands and the impact on local communities.
- The **role of incentives** in decision making.
- **Integration of high level of renewables** onto the electricity system looking at factors such as system security, system services and flexibility of the energy system to respond to changing demand (increasing level of connected devices) and changing generation (weather based renewable energy technologies).
- **Financial models** for infrastructure development, in particular in light of the changing risks and financial models for energy investments.
- Load shifting for **Waste Water Treatment Plant (WWTP)** to reduce electricity consumption at times of high prices and to provide flexibility to the electricity system.

Outside the ESIPP programme our researchers are also involved in a wide range of research programmes spanning individual research awards through to large scale European Horizon 2020 research consortia. Ireland is facing many of the challenges associated with the integration of high levels of renewables before other European countries, and the expertise of our academics in this area is of significant value to these projects. A number of our academics already play a role in supporting Government departments such as the Department of Communications, Climate Action and the Environment (Climate Action Modelling Group) and the Department of Transport, Tourism and Sport.

We are currently developing a new research programme to identify the pathways and address the needs to a net zero carbon energy system, building on the expertise that has been brought together in ESIPP. This programme is being developed in collaboration with our industry partners who are the leading energy industry players in Ireland and recognise the significant challenges that lie ahead. Continued and increased Government support (e.g. through Science Foundation Ireland) for research to support the decarbonisation of our energy will be required, and we are pleased to see this recognised in the Programme for Government.

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<sup>2</sup> <https://energyinstitute.ucd.ie/wp-content/uploads/2020/06/UCD-Energy-Institute-The-need-for-a-Hydrogen-Strategy-for-Ireland.pdf>