

## Committee on Environment and Climate Action

28<sup>th</sup> Sep 2021

(In relation to the energy charter treaty, energy security, LNGs and data centres.)

James Carton

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Fossil fuels dominate Ireland's energy system. And yet today as we emerge from Covid19, impacted by geopolitical forces seeing energy prices fluctuate, our reliance on fossil fuels is not diminishing but it must. We know unequivocally the damage fossil fuels are doing to our planet, our environment, our island; supported by the most recent IPCC report on Climate Change.

Our nation & society have seen the benefits of electrification since the Shannon scheme and the rural electrification scheme, in the 1920' & 40's. Electrification, interconnection, efficiency, heat pumps and battery electric vehicles are key pillars to decarbonisation, low energy prices and social cohesion; but electricity only accounts for 20% of Ireland's energy system according to SEAI (and 60% of electricity is reliant on fossil fuels). The other 80%; most heating and transport are difficult to decarbonise and difficult, expensive and slow to fully electrify.

Pathways to decarbonisation require not just electrons but molecules (working together); hydrogen is a key component to decarbonising; it sector-couples renewable energy with heat, transport and industry, key strategic points presented in the EU's decarbonisation plans, as well as the UK's recent released hydrogen strategy.

At this moment in time many EU countries and countries worldwide are beginning to embrace hydrogen, rolling out heavy transport, co-firing gas turbines, decarbonising industries, developing ships to move it by sea, developing platforms to produce on offshore wind turbines; while also preparing the groundwork for long-term energy storage. Ireland must follow this lead; produce green hydrogen at a useful scale (>20MW); deploy it in suitable mature application, e.g. heavy transport, and industry, and data centre power generation; test, deploy and get confidence by deploying hydrogen in satellite gas grids, and cofiring; scaling it up in the 2020's to be in a position in the '30's to build the infrastructure for electricity grid seasonal balancing. DCU has modelled the required storage needed to balance out a 100% renewable energy system, the number is between 6 & 10TWh, well beyond battery technology, but feasible for hydrogen.

Ireland is not fossil fuel resource rich and in 2021 we do not want it to be or need to be; we have vast natural, sustainable resources to support tremendous renewable energy deployment, specifically wind. We have an opportunity in Ireland to build out renewables and ensure their ability to provide energy security to Ireland and hydrogen can enable this; even becoming a green hydrogen exporter in place of a fossil fuel LNG importer.

In Ireland we need to accelerate hydrogen deployment. The impetus should be for indigenous energy; not independence - but security; creating jobs and enterprise in Ireland and copper fastening our climate objectives, while ensuring a cost effective just transition.

Just this summer Science Foundation Ireland and 25 industry partners have come together to fund a project called 'HyLIGHT', that I lead. HyLIGHT also has an advisory group representing almost 30 other organisations, associations and government representatives from North & South of the country, the aim: to scrutinise the role for hydrogen in decarbonising Irelands Energy System, excitingly many of the industry partners are wanting to develop hydrogen in Ireland sooner rather than later.

We stand on the precipice of a new economy; thousands of jobs that do not exist today, that will flow on the development of a hydrogen economy, as many understand to be necessary to fully decarbonise our energy system working hand-in-hand and even supporting clean, secure electricity supply.

We are in a Climate Emergency, declared by Ireland in 2019, emergency measures require us to act & decarbonise 100% of our energy system, hydrogen can enable this for Ireland!

Thank you for allowing me this time and opportunity to speak, I am happy to take any questions.