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Date: 23rd February 2021

Dear Stella

Re: Climate Change Committee Advice for NI in relation to the 2050 Emissions Reduction Target

Thank-you for your letter of 11th February 2021 in relation to the above mentioned matter. You have requested a short written brief (no more than 3 A4 pages) from NI Water on recent advice from the Climate Change Commission on what is Northern Ireland's fair contribution to the UK's net zero greenhouse gas emissions target by 2050 (and reductions by 2030) as well as DAERA's response to that advice dated 1st February 2021. Please find attached NI Water's response.

Yours sincerely

A handwritten signature in dark ink, appearing to read 'Sara' followed by a stylized flourish.

Sara Venning
Chief Executive



WRITTEN BRIEF ON BEHALF OF NI WATER TO AERA COMMITTEE IN RELATION TO CLIMATE CHANGE COMMISSION ADVICE ON NORTHERN IRELAND'S CONTRIBUTION TO THE UK'S NET ZERO GREENHOUSE GAS EMISSIONS TARGET BY 2050

1. Background

NI Water ("the Company") is Northern Ireland's water and sewerage services undertaker. It is a wholly-owned Government Company (the Department for Infrastructure owns all shares in the Company) as well as a Non-Departmental Public Body (primarily because the majority of its funding is by way of government subsidy).

NI Water is subject to independent economic regulation by the Utility Regulator for N.I. ("the UR") whose role is to protect the short and long term interests of customers and to promote a robust and efficient water and sewerage industry to deliver high quality services. Under its operating licence the Company is subject to a price control process whereby the UR assesses the Company's need for capital and operating costs against a range of performance targets during the price control period (usually 5/6 years). This is similar to the regime overseen by OFWAT in GB.

NI Water is also subject to regulation by a number the Northern Ireland Environment Agency ("the NIEA") and the Drinking Water Inspectorate ("the DWI") in relation to its core activities.

2. NI Water's Response to the UK's Greenhouse Gas Emissions Targets

NI Water has developed its long term strategy (with input from key stakeholders) to take account of its extensive duties in terms of the natural environment (including greenhouse gas emissions targets as they are developed) as well as its other core objectives in terms of enabling a healthy and thriving population and a growing economy. The Company is also conscious of the fact that it is currently the largest energy consumer in N.I.

The following is a non-exhaustive list of the key initiatives / projects currently planned by the Company for the next price control (PC21 – 2021 to 2027) that should have a positive impact on greenhouse gas emissions in NI. Please note that these are subject to PC21 being fully funded.

- a) Renewables: NI Water has already c.8.5MW of renewable generation within our asset base using both hydro generation and solar. The Company wishes to continue this journey during PC21 with the ambition to double the renewable capacity within its estate. It should be noted that this will still remain a small percentage of the Company's total energy requirements. There is further opportunity for third party developers to utilise NI Water land for renewable installations.
- b) NI Water is preparing to install a first hydrogen electrolyser in the UK water industry as a demonstration project. This will electrolyse final effluent from the wastewater process to generate hydrogen and oxygen. The oxygen produced can be utilised within the wastewater treatment process leaving hydrogen for vehicle fuel or for the gas grid, enabling decarbonising of the gas network. The UK Water industry is very interested in this innovative project.

- c) **Plant 1 Million trees:** NI Water recently launched its ambition to plant 1 million trees with Minister Poots. This year to commence the project planting is planned to take place at the Company's Water Treatment Works at Dunore (Antrim) and Foffany (Mournes). NI Water recognises that tree planting cannot be taken as a primary input to the net zero journey however given the Company's extensive land holding portfolio tree planting in the correct soils can have a positive impact.
- d) **Riparian Strips:** NI Water is promoting the use of riparian strips along the rivers within catchments used for water supply. This has been embraced within the 'Source to Tap' project and other dedicated NI Water projects with the primary purpose of improving raw water quality and reducing water treatment costs. A secondary benefit is the carbon reduction that the trees provide.
- e) **Peat Bog Restoration:** NI Water's flagship Garron Plateau Blanket Bog Restoration Project, involved working with the RSPB and NIEA to restore 1188 hectares of globally rare blanket bog which is sequestering c.1992 tonnes of carbon per year. This award winning initiative to protect and restore peatland in County Antrim has been recognised both nationally and internationally and points the way for more to be done.

It should be noted that NI Water's next Water Resource and Supply Resilience (WR&SR) plan, due to commence in 21/22, will integrate biodiversity and sustainability into its core values as we assess the raw water availability and treatment capacity for the next 50 years, to ensure supply demand can be achieved for customers across NI without ignoring the Net Zero journey. One of the main factors being reconsidered is the use of groundwater for public water supply to reduce the carbon intensity of pumping water across the country.

3. Looking to the Future

NI Water's extensive and largely unseen assets have significant potential to help Northern Ireland to become:-

- Self-sufficient in low-cost green energy; and
- Leaders in building a world class circular economy.

Although not part of its core business the Company is nevertheless keen to play its part in the opportunities highlighted above and has suggestions on a range of pathfinder projects that could increase the volumes of green energy available to NI customers whilst lowering their bills by using NI Water's assets to potentially enable increased renewable deployment and reduce the need for electricity network re-enforcement. These projects would need to be led and funded by the most appropriate agencies / organisations for those particular areas.

Areas for potential further exploration include

- Support for NI Electricity grid by controlling NI Water's electricity demand – to support the introduction of renewables and the additional requirements of Electric Vehicles.

- Energy Storage – could the larger NI Water sites be utilised in widespread deployment of energy storage devices both battery and hydrogen?
- Fleet Services – electrification of our >500 vehicle fleet may provide opportunities to support the grid and to facilitate fast charging points for other organisations
- Heat from Wastewater – this could have a variety of uses from district heating schemes to heating large greenhouses in the production of food.

There is a significant risk that, if N. Ireland's post-COVID-19 recovery is distorted in favour of a high-carbon economy, we will emerge and rebuild in a manner that makes N. Ireland more vulnerable to future geopolitical energy risks and locks in a high-carbon path that will be very costly to reverse later.

Innovation in both technologies and business models is a major driver of economic growth. Innovative pathfinder projects, such as the NI Water ones listed above, lower costs, support incumbent businesses, reduce greenhouse gas emissions and could potentially drive the competitiveness of our economy over decades.

Addressing the Climate Emergency and stimulating Green Growth is not something that NI water can achieve on its own. The Company will have to work closely with its stakeholders, its supply chain and its customers. Government and the Utility Regulator will be fundamentally important in setting the policy and legislative frameworks to enable and incentivise the action required.