Consultation on the Fourth Carbon Budget

Comments by

Northern Ireland Environment Link

17th November 2025

Northern Ireland Environment Link (NIEL) is the networking and forum body for non-statutory organisations concerned with the natural and built environment of Northern Ireland. Its 69 Full Members represent 190,000 individuals, 262 subsidiary groups, have an annual turnover of £70 million and manage over 314,000 acres of land. Members are involved in environmental issues of all types and at all levels from the local community to the global environment. NIEL brings together a wide range of knowledge, experience and expertise which can be used to help develop policy, practice and implementation across a wide range of environmental fields.

These comments are made on behalf of Members, but some members may be providing independent comments as well. If you would like to discuss these comments further, we would be happy to do so.

Malachy Campbell,
Senior Policy Officer,
Northern Ireland Environment Link
22-24 Lombard St,
Belfast
BT1 1RD

P: 07769 475742
E: info@nienvironmentlink.org
W: www.nienvironmentlink.org

Northern Ireland Environment Link is a Company limited by guarantee NI034988 and registered with The Charity Commission for Northern Ireland NIC10107

Context:

DAERA is required by the Climate Change Act (Northern Ireland) 2022 to set the Fourth Carbon Budget which covers the period 2038 to 2042 in line with the 2040 and 2050 emissions reduction targets in the Act.

DAERA proposes to set the Fourth Carbon Budget at an average annual reduction of 77%, in line with the advice received from the UK Climate Change Committee (CCC).

Question:

Q1. Do you feel this would provide the necessary trajectory to reduce Northern Ireland emissions and meet the legislative requirements?

Strongly Agree, Agree, Neither Agree or Disagree, Disagree, Strongly Disagree

Please provide any additional comment together with any supporting evidence for your choice

NIEL supports DAERA following the advice of the CCC as a minimum. Delivering Greenhouse Gas (GHG) emissions reductions of 77% lower than the 1990 baseline by 2040 is not just a recommendation of the CCC, but an existing statutory target for Northern Ireland. If NI can go further and faster, then it should do so.

Context:

NI must balance ambition in reducing emissions with many other considerations including economic and social considerations and fairness for future generations.

Question:

Q2. Whilst DAERA must set carbon budgets in line with the targets in the Act, what considerations/factors are important to you

Please select all that apply:

Equity among sectors - this means ensuring that all sectors of our economy play their part.	X
Fairness for citizens - including our children and young people and across regions and communities.	X
Innovation and Technological readiness.	X
Economic opportunities including green jobs.	X
Environmental and public health benefits.	X
Maintaining alignment with UK, Ireland, and global emissions reduction targets.	X
Taking account of scientific advice and the particular circumstances of Northern Ireland.	X
Fairness to future generations.	X
Other, please specify.	

Please provide any additional comment in support of your choices above:

All of the above considerations are important.

One additional factor, not referred to above, is the need for cross departmental collaboration and co-operation on achieving net zero, preferably driven by the Executive. It is clear that reducing our GHG emissions will require a very high degree of co-operation across departments, which so far has been sadly lacking. The fact that the Climate Action Plan (CAP) was due to be published by 6th June 2024[1] as required by Part 5[2] of the Climate Change Act (Northern Ireland) 2022 but was only published for consultation in June 2025 illustrates some of the problems there have been in complying with NI's legal obligations in relation to the act. Those problems need to be addressed and ironed out. It is not acceptable for any government department in NI to fail to meet its legal obligations.

The need for co-operation across government was highlighted in the UK Climate Change Committee (CCC)[3] 2020 progress report to Parliament, in which it recommended that all government departments

“Integrate Net Zero into all policy making, and ensure procurement strategies are consistent with the UK's climate objectives”

NIEL believes that, amongst other things, the Just Transition offers an opportunity to address a range of issues, including those mentioned above, such as equity among sectors and fairness for citizens, economic opportunities, environmental and public health. Indeed, those issues of equity and fairness are core to what the Just Transition is about. Establishing a Just Transition Commission offers a means of dealing with many of those issues.

In its 2019[4] report “Net Zero The UK’s contribution to stopping global warming” the CCC said that in relation to a just transition[5],

“The transition, including for workers and energy bill payers, must be fair, and perceived to be fair. Government should develop the necessary frameworks to ensure this. An early priority must be to review the plan for funding and the distribution of costs for businesses, households and the Exchequer.”

According to Section 37(4)[6] of the Climate Change Act Northern Ireland (2022), a Just Transition Commission is to be established and members of the Commission must include a representative of each of the following sectors: the agricultural sector; the fisheries sector; academia; trade unions; youth groups; civic society and environmental groups.

In its response to the consultation on a Just Transition Commission, NIEL stated it would support the inclusion of a representative or representatives from the green finance sector, the IT/Technology sector and the Transport sector in the Just Transition Commission. Having a range of expertise in the Commission should help provide it to manage the range of issues it will have to deal with.

NIEL believes that DAERA and other departments, especially the Department of Finance and the Department of the Economy, could and should do more to explain and highlight the many economic benefits and opportunities arising from achieving net zero as this is an area in which the NI Executive and government departments are often found lacking. For example, in the Sixth Carbon Budget, the CCC found[7] that

“the net costs of the transition to net zero by 2050 (including upfront investment, ongoing running costs and costs of financing) will be less than 1% of GDP over the entirety of 2020-2050, lower than we concluded in our 2019 Net Zero report.”

Modelling commissioned for the CCC Sixth Carbon Budget report[8] suggests achieving net zero in the UK will give a boost to UK GDP growing to around 2% of GDP by 2030, with an accompanying boost to employment of around 1%. According to this analysis the GDP boost

will continue growing after 2030 before levelling off at around a 3% boost by 2050. The CCC goes on to say[9] that considering the various economic models and evaluations, the investment programme for achieving net zero set out in section 2 of the Sixth Carbon Budget report

"can provide a significant economic boost in the coming years and support the UK's economic recovery."

According to the CCC's report on NI's Fourth Carbon Budget[10] report, the CCC expect the Northern Ireland Net Zero Pathway to result in a net saving during the Fourth Carbon Budget Period. On average there will be a net cost of around £90 million per year between 2025 and 2050, which is around 0.2% of GDP.

The appointment of a Climate Commissioner as required by section Part 5, paragraph 50[11] of the Climate Change Act (Northern Ireland) 2022 should also help address the issues listed above, as the function of the Climate Commissioner is to oversee and report on the operations of the Act. This is yet another requirement of the 2022 act that the Executive should progress as a matter of urgency.

Context:

Northern Ireland taking action to meet the proposed Fourth Carbon Budget may have impacts and bring benefits to society. The Department recognises specific benefits and impacts will be dependent on emissions reduction policies that are agreed by the NI Executive closer to 2038.

Question:

Q3. Do you have any views on the potential impacts (positive and negative) that will be realised in Northern Ireland reducing its emissions to meet the proposed Fourth Carbon Budget?

You may wish to consider the impacts /benefits in the categories below:

A) Financial impacts

B) Economic impacts

C) Social impacts

D) Rural impacts

E) Equality impacts

F) Impact on children and young people

Please provide comments:

A transition to Net Zero is likely to have significant positive impacts on a range of issues and departments including longer-term health issues associated with factors such as air pollution and climate change related crises like extreme heat events. For example, in a letter to the former AERA Minister dated 1 April 2021, the UK CCC[12] said

“Long-term decarbonisation can also bring substantial co-benefits, particularly for the natural environment, climate change adaptation, and public health.”

This is one reason why the cross departmental collaboration referred to in our response to Q2 is so important.

According to Section 30 (3) of the Climate Change Act (Northern Ireland) 2022[13], actions to reduce NI emissions and increase NI removals should as far as possible, achieve the objectives of

(a) supporting jobs and the growth of jobs that are climate resilient and environmentally and socially sustainable,

(b) in particular, supporting the agriculture sector and other sectors of the economy in Northern Ireland that are likely to be most affected by action to reduce those emissions and increase those removals,

(c) supporting low-carbon investment and infrastructure,

(d) developing and maintaining consensus through engagement with (among others) workers, trade unions, communities, non-governmental organisations and representatives of the interests of business and industry,

(e) creating decent, fair and high-value work in a way which does not negatively affect the current workforce,

(f) contributing to a resource-efficient and sustainable economy,

(g) supporting persons who are most affected by climate change, particularly those who may have done the least to cause it or may be the least equipped to adapt to its effects,

(h) reducing, with a view to eliminating, poverty, inequality and social deprivation,

(i) eliminating gender inequality and advancing equality of opportunity between men and women,

(j) supporting the social and economic needs of people in rural areas, and

(k) taking into account the future generations principle.

All of the above issues should then be properly addressed in the course of the implementation of the act, not just the issues listed in the table in Q2 and in Q3 in the consultation document.

For reference, in its just transition and climate change adaptation report[14] from March 2022, the UK CCC outlined the working definition of a just transition process used in Scotland as

"Governments design policies in a way that ensures the benefits of climate change action are shared widely, while the costs do not unfairly burden those least able to pay, or whose livelihoods are directly or indirectly at risk as the economy shifts and changes. This definition recognises the principles of sharing benefits and burdens fairly to avoid future injustice and inequality due to an economic transition and could also be extended to considering climate impacts and the effects of adaptation interventions."

NIEL believes that job creation in the management of species and habitats should be a priority. Jobs related to nature-based solutions[15] can support delivery of both climate and biodiversity targets and provide a range of benefits to people who can avail of these roles. More broadly, it is critical that nature is at the heart of conversations around just transition.

It is also worth noting that the CCC advised that the Just Transition Commission in Scotland should include adaptation within its work[16], and report annually on Scotland's progress in building climate resilience fairly, an approach NIEL would recommend also be taken in NI. The CCC also advised the Scottish Government should develop and publish an assessment of the characteristics of vulnerability and adaptive capacity across Scotland and expand public engagement activities under the Scottish Climate Change Adaptation Plan (SCCAP) to put fairness at the centre of efforts to implement its vision of a well-adapted Scotland. NIEL believes similar steps should be taken in NI.

Question:

Q4. We appreciate your feedback on the questions above, this comments box is to provide you with the opportunity to add anything further that you have not already had an opportunity to do so regarding the Fourth Carbon Budget.

The issue of equity among sectors was referred to in Q2 and an important aspect of that issue of equity is that all sectors should, as far as possible, play a full part in reducing GHG emissions to ensure that NI's targets are met. However, the level of ambition for the projected/expected levels of emissions reduction in the agriculture sector for example, are much lower than for other sectors.

For example, in its 2023 "Advice report: The path to a Net Zero Northern Ireland"[17] in the Stretch Ambition Pathway, the CCC said that in relation to transport, which was the sector with the second highest GHG emissions (of 21% in 2023), "emissions will need to fall 43%

from 2020 to 2030, while in relation to agriculture, which was the sector with the highest GHG emissions (of 31% in 2023), the CCC said[18] “emissions will need to fall 21% from 2020 to 2030.” According to the NI Greenhouse Gas Inventory 1990-2023[19], land use also contributed 12% of NI’s GHG emissions, so agriculture and land use together were responsible for 43% of NI’s GHG emissions in 2023. In that context, a higher level of ambition for emission reductions for those sectors with lower GHG emissions than the agriculture sector would seem inappropriate and potentially unfair to those other (lower emitting) sectors and that much more ambitious targets for GHG reductions from higher emitting sectors should be set.

As the largest emitting sector, agriculture has a central responsibility to contribute proportionately to the Fourth Carbon Budget. A fair and credible Net Zero pathway depends on strong, early progress from agriculture, supported through a Just Transition.

A key strategic risk is growing reliance on mitigation approaches within agriculture that are still modelled rather than proven at operational scale. Feed additives such as Bovaer/3NOP were expected to deliver substantial reductions, yet recent evidence shows that real-world performance and/or industry and public uptake does not always match predictions. Other proposed interventions remain at pilot stage with uncertain delivery timelines. Building the sector’s 2030 and 2040 pathway around solutions that may underperform exposes farm businesses to abrupt future pressures if expected reductions do not materialise.

There is also a risk that focusing narrowly on methane could drive over-correction toward monogastric systems. While monogastrics have lower methane emissions, they increase reliance on imported feed which outsources emissions and intensifies local nutrient surpluses, ammonia emissions and waste-management challenges. These unintended consequences could undermine water-quality recovery, damage N sensitive habitats and put further regulatory pressure on agriculture.

The most obvious and effective approach for both the sector and Northern Ireland is to prioritise proven land-based measures that deliver reliable mitigation today. Peatland restoration, woodland creation, agroforestry, improved nutrient management, diversified rotations and wider low-carbon farming practices are already supported by the CCC and provide strong co-benefits for biodiversity and water quality. These actions reduce dependency on uncertain technologies and strengthen the long-term resilience of farm businesses.

The Just Transition Fund for Agriculture and future agri-environment schemes offer practical mechanisms to support farmers in adopting these measures at scale. With appropriate financial, advisory and regulatory support, agriculture can lead from the front. The Scale of Need report[20] highlights the gross inadequacy in funding in this area.

If agriculture does not deliver the necessary reductions through these established pathways, pressure will shift toward engineered removals to close the gap. This is the highest-risk

scenario. Northern Ireland has extremely limited geological storage potential, no operational engineered-removal infrastructure and no feasible pathway to deploy these technologies at the scale that would be required. Relying on engineered removals to compensate for insufficient agricultural action is therefore unrealistic and exposes Northern Ireland to compliance failure.

According to the CCC's Fourth Carbon Budget for NI[21]

"Engineered removals are needed to balance residual emissions in 2050, predominantly from agriculture."

This suggests that the scale of engineered removals may well need to increase if emissions from the agriculture sector in NI do not decrease sufficiently. However, this could be problematic as the potential for engineered removals in NI is actually very low, as the CCC has previously outlined, for example, as underground storage of CO_2 is not an option and other options like direct air carbon capture and storage (DACCS) have not been proven at a sufficiently large scale. In short, at present, there is little or no evidence that engineered removals will be able to operate at the scale being hypothesised in 2040 and it seems impractical to proceed based on a reliance on hypothetical technologies that are currently unavailable, in order to allow the agriculture sector to avoid making the scale of changes that are necessary and currently possible. Rather than relying on the use of these speculative, potentially more expensive and currently impractical and unavailable engineered removal options, the emissions reductions from the agriculture sector should increased. The problem, of GHG emissions, could and should be better dealt with in ways which are already known and understood, such as peatland restoration and management, woodland creation and management and the development of low carbon farming practices, which the CCC described as "essential."[22]. Given that those low carbon farming actions could also benefit our biodiversity, they would seem to be much better options than engineering removals.

The Just Transition Fund for Agriculture, along with other existing support mechanisms, offers an obvious means of supporting the agriculture sector and land managers to help make the transition to net zero and implement the practical, readily available options the CCC have suggested such as the peatland restoration and management, woodland creation and management and the application of low carbon farming practices.

References

[1] https://aims.niassembly.gov.uk/questions/printquestionsummary.aspx?docid=391171
[2] https://www.legislation.gov.uk/nia/2022/31/part/5/enacted
[3] https://www.theccc.org.uk/publication/reducing-uk-emissions-2020-progress-report-to-parliament/ p25
[4] https://www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming/ p257
[5] https://www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming/ p257
[6] https://www.legislation.gov.uk/nia/2022/31/section/37/enacted
[7] https://www.theccc.org.uk/publication/sixth-carbon-budget/ page 239
[8] https://www.theccc.org.uk/publication/sixth-carbon-budget/ page 267
[9] Ibid page 267
[10] https://www.theccc.org.uk/wp-content/uploads/2025/03/Northern-Irelands-Fourth-Carbon-Budget-1.pdf
[11] https://www.legislation.gov.uk/nia/2022/31/part/5/enacted
[12] https://www.theccc.org.uk/wp-content/uploads/2021/04/20210401-Letter-CCC-to-Minister-Poots.pdf p8
[13] https://www.legislation.gov.uk/nia/2022/31/section/30/enacted
[14] https://www.theccc.org.uk/wp-content/uploads/2022/03/CCC-The-just-transition-and-climate-change-adaptation.pdf page 4
[15] Actions to protect, sustainably manage and restore natural or modified ecosystems while simultaneously providing benefits for human well-being and biodiversity, have been referred to as 'Nature-based Solutions' (NbS). Nature-based solutions such as trees, hedgerows, peatlands, species-rich grassland, blue carbon stores and other green infrastructure, when appropriately located, provide important ecosystem services that, for example, reduce the effects of flooding and the urban heat island, in addition to providing important habitat and supporting numerous species.
[16] https://www.theccc.org.uk/wp-content/uploads/2022/03/CCC-The-just-transition-and-climate-change-adaptation.pdf p15
[17] https://www.theccc.org.uk/wp-content/uploads/2023/02/Advice-report-The-path-to-a-Net-Zero-Northern-Ireland.pdf
[18] https://www.theccc.org.uk/wp-content/uploads/2023/02/Advice-report-The-path-to-a-Net-Zero-Northern-Ireland.pdf
[19] https://datavis.nisra.gov.uk/daera/northern-ireland-greenhouse-gas-inventory-1990-2023-statistical-bulletin.html
[20] https://www.wildlifetrusts.org/sites/default/files/2024-07/Scale%20of%20Need%20Report%20July%202024%20FINAL.pdf?utm_source=partners&utm_medium=website&utm_campaign=report_launch
[21] https://www.theccc.org.uk/wp-content/uploads/2025/03/Northern-Irelands-Fourth-Carbon-Budget-1.pdf
[22] Ibid.