An Taisce
The National Trust for Ireland

Call for Expert Evidence 2022
Environment and Climate Action Plan Delivery Division
Department of the Environment, Climate and Communications
29-31 Adelaide Road
Dublin 2

Sent via email to: CallforEvidence@decc.gov.ie

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Re. Call for Expert Evidence - Climate Action Plan 2023

An Taisce welcomes the opportunity to contribute to the consultation on the Climate Action Plan 2023. We wish to make the following submission.

1. Sectoral Emissions Ceilings

1.1 What do you view as the key actions required to ensure the emission reduction targets set out in the Sectoral Emission Ceilings are met?

Taking cognisance of the recent EPA Emission figures for 2021, the Climate Action Plan is required to take corrective action to ensure the 1st Carbon Budget period 2021-2025 limits are complied with. The declaration of a Climate and Biodiversity Emergency by the Oireachtas implies that radical corrective action in the short term is required and the Climate Action Plan must implement these if it is to have any credibility.

1.2 What do you view as the main challenges/obstacles to the Sectoral Emission Ceilings being met?

As it stands, the sectoral emissions ceilings set by Government do not meet the legal obligations of the Climate Action and Low Carbon Development (Amendment) Act 2021 (hereafter referred to as the Act). This must be urgently addressed as a preliminary matter.

Section 6C(1) of the Act states that:

> *"The Minister shall prepare, within the limits of the carbon budget, the maximum amount of greenhouse gas emissions that are permitted in different sectors of the economy* ***during a budget period*** *(in this Act referred to as a "sectoral emissions ceiling") and different ceilings may apply to different sectors".* [emphasis added]

The sectoral ceilings announced in August only cover the year 2030 and are measured in percentage reductions rather than in maximum emissions limits in MtCO2eq. No sectoral ceilings have been set for the 2021-2025 budget period, which we are now well into, and no ceilings have been set for 2026-2029. The lack of ceilings for these periods entails that sectors do not have emissions limits set except for those in 2030, and therefore the overall

carbon budgets could easily be exceeded. Sectoral ceilings, measured in MtCO2e, must be urgently set for each budget period. Furthermore, the Government has allowed for large "unallocated emissions reductions". This is not provided for under the Act and could allow for the overall budgets to be exceeded.

The Minister's recent statement that indicative sectoral emission limits will be provided for the first carbon budget period with the exception of the LULUCF sector does not meet the requirements of the Climate Act. LULUCF figures have been provided by the Climate Change Advisory Council and while these may be over optimistic, they should at least have been incorporated into the 2021-25 sectoral emission limits, or provision made for greater emissions than anticipated via the precautionary principle.

The findings of the LULUCF Review in 18 months' time will not materially affect the achievement or otherwise of the 295Mt requirement of the 2021-25 budget period. Neither will any change in policy such as increased tree planting initiated in 2026 significantly contribute to sequestration during the 2026-2030 carbon budget period. The Review amounts to procrastination on achieving the required emission reductions during these two critical carbon budget periods.

These issues have been discussed in detail in a letter from four eminent climate science and law experts to the three Coalition leaders[1] and in a corresponding *Irish Times* article[2], and we would direct the Department to those documents.

2. Carbon Pricing and Cross-Cutting Issues

2.1 Are there any unintended barriers within the planning system that should be addressed at national policy level in order to deliver our climate ambitions?

The rights of the public to compel decision makers at local and national level to comply with climate-related legislation are essential parts of the democratic planning process. Proposed limitations on access to justice in the planning system, especially through judicial review processes, would therefore constitute an unacceptable barrier to this and severely thwart the expressed wishes of the electorate regarding the delivery of climate ambitions.

There is an ongoing systemic failure to meet the obligations of the Environmental Impact Assessment Directive and Habitats Directive with regard to the identification, assessment and mitigation of the cumulative impacts of individual projects. There is a tendency for planning and licensing proposals to be treated as standalone installations assessed solely

[1] McMullin, B., Jackson, A., Price, P.R., Sweeney, J. (2022) Letter re: Sectoral Emission Ceilings under the first carbon budget programme: https://docs.google.com/a/dcu.ie/viewer?a=v&pid=sites&srcid=ZGN1LmllfGRjdWVjcm58Z3g6NmQyMTIyMTg3%20YTAyNjUyMQ

[2] McMullin, B., Jackson, A., Sweeney, J.. Price, P.R. (14 Sept 2022) *Irish Times*, "The Government is already in breach of its own Climate Act": https://www.irishtimes.com/opinion/2022/09/14/the-government-is-already-in-breach-of-its-own-climate-act/

based on potential impacts within, or in the immediate vicinity of, the red line-delineated site. This is despite the fact that many impacts, notably climate impacts, are not spatially bound to the development site itself and its immediate surrounds and are therefore not being adequately assessed in-combination with other projects and plans.

2.2 What further opportunities exist within our taxation system, beyond measures already implemented and planned, to promote emissions reductions, either on an economy-wide basis, or in specific sectors?

Taxation of polluting vehicles currently does not comply with the 'polluter pays' principle. A revision of motor taxation for SUVs to reflect their impact both in terms of polluting emissions and road surface damaging weight is required to eliminate the ongoing increase in vehicular emissions, despite improvements in emissions technology.

Congestion charging in city centres is required to encourage modal shift in transport. Similarly an end to private parking in city centre locations currently enjoyed by private sector firms should be engineered through stricter benefit-in-kind regulations.

Artificial fertilisers must be subjected to VAT, as applies in all other EU countries.

3. Electricity

3.1 What options are available to increase the penetration of renewable electricity beyond the up to 80% committed to in Climate Action Plan 2023?

A pan-European grid fed by both wind and solar will help provide this capability. Increased interconnections must be pursued as a matter of urgency.

3.2 What can be done to accelerate/facilitate the delivery/deployment of offshore wind and solar PV in particular, in the context of Climate Action Plan 2021 and the REPowerEU ambition?

It must be ensured that applications for offshore renewable energy developments and the supporting infrastructure are made in accordance with EU and national law from the start, particularly with regard to environmental impacts. Lack of compliance will increase the time proposals spend in the planning process and increase the likelihood of legal challenges.

Planning authorities need to be sufficiently resourced to handle the influx of applications. They also need to employ and retain enough staff with the relevant expertise in, for example, ecology, environmental law, etc.

Broad and meaningful public participation from strategic plan stages, through the earliest stages of project development and through the application process is essential.

While offshore renewables hold great potential from an energy perspective, they must avoid exacerbating the biodiversity loss crisis (see section 7.8 of this submission).

3.3 What role does renewable gas have in the power generation sector?

See section 7.3 of this submission on biogas.

3.4 What role could carbon capture and storage have in decarbonising our power sector?

None by 2025 and probably none by 2030. The development of carbon capture and storage at significant scale and in any immediate timeframe is very uncertain. The 2023 Climate Action Plan should focus on rapid and deep emissions reductions in the electricity sector via transitioning away from fossil fuel use rather than relying on uncertain technology such as carbon capture and storage.

3.5 What financial incentives are needed to increase renewable generation capacity? Microgeneration?

The use of electric car batteries to upload energy to the grid with appropriate permission when connected to charge points should be considered.

3.6 Other comments: Data centres

Data centres currently consume approximately 14% of Ireland's grid-generated electricity, according to CSO figures. Over the last four years alone, data centre energy demand has increased by approximately 600GWh, enough to power around 140,000 households. The Irish Academy of Engineers and EirGrid have projected that data centres' demand will increase to between 25% and 33% of grid-generated electricity by the end of the decade. However, these projections only account for already contracted capacity and do not account for new data centre projects that are not already contracted for grid connections (already at least 1GW according to EirGrid).

Despite the climate impacts of such significant power use, data centres are being considered on a case-by-case basis by planning authorities with wholly insufficient consideration of cumulative impacts to the climate and energy demand (see section 2.1 of this submission). The only national level policy on data centre development supports the continued growth of the sector and does not address the climate impact of data centre energy demand. Furthermore, to An Taisce's knowledge, this policy did not undergo public consultation.

We are of the view that a national review of data centre energy demand is needed and that this should inform a new national policy on the level of future data centre development that can be accommodated in compliance with our national, European and international emissions reduction obligations. A moratorium on all further data centre development should be put in place until such a policy is enacted.

4. Enterprise

4.1 How can we encourage the diversification away from products with high levels of embodied carbon, such as traditional cement in construction to lower carbon alternatives?

Low carbon cement (e.g. GGBS) should be a tender requirement for all public buildings, schools, colleges, etc.

4.2 What role could Carbon Capture and Storage (CCS) have in industry, and what steps would encourage its deployment?

See section 3.4 on carbon capture and storage.

5. Built Environment

5.1 Housing for All Commits to 100% funding to retrofit 40% of local authority housing stock to B2 by 2030 at a cost of 1.4 billion euro. How can we further support local authorities to help them deliver on social housing retrofit targets?

Rapidly and substantially increase funding for local authority retrofitting programmes. Plans must also be put in place to support residents during retrofits, particularly if they are required to move out for a period.

5.2 *In addition to the existing financial supports and policy measures, are there any other incentives/assistance needed to help homeowners upgrade the energy efficiency of their homes?*

The current system is very red tape heavy, and geared towards those with more IT skills and the ability to navigate the multiple levels of paperwork and forms to be filled in. Processes should therefore be streamlined and simplified.

Direct outreach to vulnerable households is needed, as is hands-on support for them before, during and after retrofitting. Plans and supports are needed with regard to alternative housing when homes are being retrofitted. Clarification is needed on how the costs of temporary housing will be covered as well as refitting/redecorating costs. Particular

attention should be given to the specific supports needed for older people undergoing home retrofits.

Plans are also needed to protect renters' rights if their home has to undergo retrofitting. Rent prices should not be raised post-retrofit, and plans need to be put in place for housing tenants while their accommodation is being upgraded.

We would refer the Department to the recommendations made by social pillar organisations.

5.3 Further to the existing supports financed by carbon tax revenues, how can we protect those who are currently experiencing fuel poverty and those who are at risk?

Means testing and sliding scales should be provided for in retrofitting grants.

5.4 What specific measures can be implemented to improve the efficiency of rolling out the National Retrofit Programme?

The removal of the battery grant for solar installations was a retrograde step and should be reversed. See also section 5.2 above.

5.5 *What specific measures would incentivise a greater rate of oil boiler replacement?*

The end date for new purchases and maintenance should be clarified as a preliminary matter.

6. Transport

6.1 Sustainable Mobility and Demand Management

Planning System

All County and City Development Plans (as well as the National Planning Framework) now address the need to integrate land use and transport planning as well as the need to shift away from dispersed, car-orientated development to walkable, cycleable, transit-orientated and consolidated settlement forms. However, significant implementation gaps remain between these policies and their realisation on the ground.

Planning permissions for new large residential schemes in and around the main urban catchment areas, particularly Dublin, continue to be granted without assessing and mitigating the impact of increased traffic generation. While some applicants have set out

provisions for Mobility Management Plans, these are left to be implemented after construction and are not integrated with permission conditions.

There is a systemic failure to ensure that new housing developments are linked to safe cycling routes to schools, local services, recreation areas, and enhanced public transport in the satellite commuter housing areas. This makes these areas unsafe for walking and cycling to schools, local services and amenities. These residential schemes often include strong walking and cycling permeability within the boundary of the site itself, they are frequently located on the fringes of cities and towns at a significant remove from existing transport links or services (grocery stores, health facilities, etc.). They are also often sited in areas with very limited existing pedestrian and cycling infrastructure. Therefore, although a new development may provide high quality foot and cycle paths around the dwellings, these often terminate immediately outside the site boundary, thereby discouraging residents from using active travel modes outside of the development itself. Furthermore, despite the abundance of national, regional and local policies stipulating that all new development should promote compact settlement and have easy access to transport links as well as safe walking and cycling routes, large residential applications are rarely, if ever, refused on the basis of not having these elements.

Investment

Currently, transport investment in Ireland is heavily weighted toward carbon-intensive travel, particularly private vehicle use and motorway expansion. To achieve any demonstrable progress towards sustainable mobility objectives, this balance must fundamentally shift to prioritise investment in active travel and public transport. Further road investment nationally should be restricted to necessary maintenance and the construction of small-scale town bypasses to relieve urban congestion.

Recommendations for Active Travel

- Increase subsidies for e-bikes. SEAI grants for e-bikes, especially e-cargo bikes, need to be part of the grants package.
- Institute mileage/km allowances for cycling, to encourage greater use of commuting by bike, similar to Belgium.[3]
- Deploy fleets of bikes for state and semi-state employees to use instead of cars for some work journeys.
- Further expand the bike to work scheme to be more inclusive with focus on low earners, students, and the unwaged.

[3] https://cycling.today/more-than-400000-belgians-get-paid-to-cycle-to-work

- Fund the retrofitting of train carriages for increased carriage of bicycles, and the future purchase of appropriate carriages.

- Reallocate road space on a widespread basis to accommodate segregated cycle lanes and safe, accessible footpaths.

- Prioritise the creation of safe cycling and walking routes to schools.

- Provide ample covered, secure bike parking for all major transport hubs/interchanges, shopping and service centres, and in particular in schools and colleges.

- Create and resource appropriately within the Department of Transport, a National Cycling Coordination Office headed at senior level to be primarily focused on ensuring coordination on policy, standards, and expenditure across government departments.

- Require the appointment of Cycling Officers at Director of Services level in all Local Authorities, with a remit:
    - to produce and oversee the implementation of the above high quality cycling policy;
    - to set targets and effect modal change at local level;
    - to ensure adequate staffing resources for active travel development and to oversee any required re-allocation of staff internally;
    - to set up a Local Authority Active Travel Forum (this could be sub-committee of the Transport Strategic Policy Committee) where stakeholder views are adequately represented.

- Prioritise as a matter of urgency a review of design standards
    - to ensure design and construction of safe high quality routes in line with best international practice;
    - to ensure design consistency across agencies, institutions, and local authorities.

- Introduce legislation so that 30km/h becomes the default speed limit in all built-up areas, and Councils can then introduce exceptions to these limits where it is deemed safe and appropriate.

- Further expand cycle training, via the Cycle Right program, with adequate funding to ensure that local authorities can offer cycle training for all levels and ages including on-street training.

Recommendations for Public Transport

- Substantially increase connectivity between public transport systems around the country. This should include an integrated ticketing system.
- Expand rural bus routes both between villages and to urban centres with the goal of hourly services in every village/town.
- Continue and expand public transport fare reductions.
- Ensure free school bus access for all children living over 1km from their school.
- Progress the electrification of bus and rail fleets.

Other Recommendations

- Introduce congestion charging in city centres, first and foremost in Dublin.
- Revise motor taxation for SUVs to reflect their impact both in terms of polluting emissions and road surface damaging weight is required to eliminate the ongoing increase in vehicular emissions, despite improvements in emissions technology.
- End private parking in city centre locations currently enjoyed by private sector firms. This should be engineered through stricter benefit-in-kind regulations.
- Increase effective monitoring and emission control action in areas with NOx exceedance to limit more highly polluting vehicles.

6.2 Electrification

Although the rapid electrification of the vehicle fleet is imperative in achieving climate targets and enhancing the overall sustainability of transport, a modal shift away from any type of car use should be prioritised. Electric vehicles still have a major resource consumption impact and continue to emit particle pollutants through brake fluid, tyre wear, etc.

Sales of new internal combustion engine cars should be ended within the current carbon budget period. A special focus is required for accelerating purchase of electric vans for the building, delivery and service sectors. The electrification of the taxi fleet is also needed, along with the supporting infrastructure.

6.3 Freight / Commercial Sector

Brussels based eNGO Transport & Environment (of which An Taisce is a member), carries out ongoing research on HGV fuel efficiency and shifting away from fossil fuel trucks to zero-emission vehicles. We would direct the Department to their recommendations.[4]

The capacity to transport freight via rail should be greatly increased. For example, the Limerick-Foynes rail line is existent; it is a regional and national asset, and there is a clear capacity to restore the rail freight line to use within an immediate time frame.

Consideration of freight in the Climate Action Plan should also include issues of shipping and ports. Current models of continued increases in tonnages passing through Irish ports and the resultant demand for land transport need to be revised to address sustainability constraints. The continued accommodation of increased berthages and the building of motorways and dual carriageways for land haulage is being justified on the basis of rising demand on the Trans-European Network TEN-T ports and connection routes in Ireland. Future policies and investment with regard to shipping should focus on building up the heavy rail network for freight haulage. Waterford Port is underutilised and has the best designed rail-to-berthage interchange in the country, it accordingly has major potential for rail.

As a maritime nation Ireland should be party to international research and prototype development of low emissions shipping. In particular, the development of low emissions sail-rail connections from Dublin to Holyhead and the British railway system should be advanced as a cross-Irish Sea cooperative action.

6.4 Rural Transport

Many of the aforementioned recommendations apply to rural areas, however, we would also make the following specific recommendations:

- Expand rural bus routes both between villages and to urban centres with the goal of hourly services in every village.

- Develop a clear policy for Cycling in Rural Ireland. Cycling needs to be a countrywide issue, not just an issue for major urban centres. The opportunities are there and these can also support local economic and social development.

- Increase supports for rural dwellers to purchase electric vehicles and home chargers. Rapidly deploy public charging points in rural areas.

[4] https://www.transportenvironment.org/what-we-do/cleaner-safer-trucks

6.5 Just Transition & Communication

Sustainable transport measures must be targeted appropriately to be fully affordable for people on lower incomes. As it stands, electric vehicles (and the associated charging capability) and electric bikes (and indeed conventional bikes) are unaffordable for a substantial portion of the population, even with the existing support schemes. Further reducing public transport fares will also be essential in this regard.

The specific challenges facing rural households must also be fully accounted for in just transition as those living in rural areas currently have far fewer public transport and safe active travel options when compared to urban dwellers.

6.6 Other Comments

- Reduce aviation dependence by international cooperative action for low-emission sail and rail connectivity with Britain and the continent.

- Current restrictions on foot passengers (including cyclists) on some Irish Sea and continental ferry routes should be removed as having no practical or operational justification.

- Tourism and transport:
    - Longer area-based stays rather than drive-through tourism should be promoted. Development of enhanced public transport tourism options along the Wild Atlantic Way is needed.

    - Enhanced promotion and development of greenway routes is also needed.

    - Given the high emission impact of aviation, the promotion of foot or cycling passenger ferry journeys for longer stay visits is desirable.

    - The leisure and corporate sectors should redirect their tourism promotion focus to longer stays rather than more frequent short trips during the year.

7. Agriculture, Land Use and Forestry

7.1 What are the opportunities to increase take-up of measures identified in AgClimatise and encourage adoption of other practices which reduce emissions?

AgClimatise was roundly criticised by environmental NGOs and climate scientists at the time of its drafting as being insufficient and aspirational. An Taisce worked with Stop Climate Chaos and the Environmental Pillar to outline the flaws in the plan.[5] This Climate Action Plan

[5] https://environmentalpillar.ie/2020/12/10/ag-climatise-is-a-roadmap-for-business-as-usual-damage-to-climate/

should not rely on uptake of the measures in the flawed AgClimatise if it is to realise the necessary ambition.

Limited opportunities for compliance with the 2021-2025 budget period exist, and this should be recognised at the outset. LESS has achieved only limited success in changing slurry spreading practices. Other MACC aspirations are similarly limited in application after several years. Accordingly short term measures, such as significant herd reduction must be undertaken.

Artificial fertilisers must be subjected to VAT as applied in all other EU countries.

In Ireland, significant increases in synthetic fertiliser use, alongside rapid increases in dairy production levels over the last decade, have resulted in year-on-year increases in methane and nitrous oxide emissions from the agricultural sector. Nitrogen fertiliser use in agriculture is also a direct driver of national ammonia emissions and water quality decline. Increases in nitrogen fertiliser application, combined with increases in dairy cow numbers were observed to be the main drivers of the agricultural sector emissions, bringing them to 15% above 1990 levels in 2021.[6] Therefore, significant scaling back of nitrogen inputs to the land is crucial to reversing increasing trends in domestic agricultural emissions. A revised roadmap for agri-related emissions reductions and a declining cap on total national reactive nitrogen usage is required. To rapidly bring down sectoral methane and nitrous oxide emissions, we recommend that regulatory, voluntary and combined measures be implemented to limit and reverse recent dairy expansion. Compensatory measures for farmers should be put in place to incentivise herd reductions.

It is our view that lower-intensity farming practices, requiring fewer external inputs (such as feed, chemical fertilisers and pesticides), have a key role to play in achieving significant emission reductions within the sector. An increased role for organic agriculture is one potential solution. Elimination of the use of chemical fertilisers and pesticides, along with lower stocking rates associated with organic livestock farming systems, can result in a significant reduction in GHG emissions compared to conventionally-managed systems, as well as providing benefits for improved biodiversity, water quality and soil health. Organic farming and low-intensity practices should be considered as an essential component of climate action within plans for the agricultural sector.

While organic farming is mentioned in the Climate Action Plan 2021, the language is weak and it is not adequately considered as part of the broader approach to agricultural climate action and food security. For example, measures such as reduced nitrogen use and organic farming are listed only as 'potential metrics' for progress within the context of climate action, and the plan mentions 'exploring' diversification and organic farming rather than implementing it at a large scale. While the inclusion of a national organic production target (Action 316 - to increase 74 000 ha to 350,000 hectares of organic farming by 2030) i.e. to have 7.5% of Irish agricultural land under organic production by 2030 would be a welcome increase from the current ~2% of land farmed organically, this target does not adequately

[6] https://www.epa.ie/our-services/monitoring--assessment/climate-change/ghg/agriculture/

reflect the EU target of 25% (by 2030) under the Farm to Fork Strategy and the European Green Deal. Increased ambition is needed.

We would further encourage a target for percentage from organic production (rather than land area) as a more appropriate measure of progress. Furthermore, stronger emphasis on the role for organic farming in climate mitigation and resilient food production within the upcoming plan is needed. Improved support for organic farmers, such as those included under the new Organic Farming Scheme, are a welcome development and have proven successful in encouraging more farmers to make the transition to organic production. The new Climate Action Plan should reflect such developments, and provide complimentary actions to further improve progress in this area.

7.2 What policies and measures would be needed to support farmers diversify their farm activities to include opportunities such as bioenergy, vegetable growth, forestry, organic farming, etc.?

We refer the Department to the recommendations published in *Towards a New Agricultural and Food Policy for Ireland,* the 2021 joint report by the Environmental Pillar, Stop Climate Chaos and the Sustainable Water Action Network.[7]

7.3 What can be done to maximise the use of manure and silage as feedstock for biomethane generation in closed digesters and inject into the gas grid to offset natural gas?

It is highly premature to assume that biogas can be effectively used to reduce emissions and that the use of manure and silage as feedstocks should be maximised.

The feedstock sources and the supply chains of these feedstocks must be assessed as part of an evaluation of bioenergy's emissions reduction potential. The emissions that contribute to the production of feedstocks must be considered as they can significantly negatively impact bioenergy's overall contribution to climate mitigation.

Anaerobic digestion predicated on increased grass or energy crop production has the potential for significant adverse impacts to climate and water quality as a result of the increased levels of fertiliser input needed to grow the silage. The use of existing waste streams for energy provision are often a more sustainable option as they do not promote an increase in production of energy crops, which can increase NO2 soil emissions and water quality impacts through higher fertiliser requirements. With regard to the use of slurry, intensive cattle farming is also a major emitter of greenhouse gases. Any use of slurry for

[7] Environmental Pillar, Stop Climate Chaos and the Sustainable Water Action Network (2021) *Towards a New Agricultural and Food Policy for Ireland*: https://drive.google.com/file/d/1JthUEpgJ8N_CzoJBi8VGR1IBDossY3Fk/view?usp=sharing

bioenergy production should not be reliant upon or drive further bovine agriculture intensification.

We would refer the Department to research by Beausang et. al. (2021) on the sustainability of grass silage and cattle slurry for biogas production.[8]

We would also highlight that anaerobic digesters suffer from significant fugitive emissions problems via methane leaks. The effect of the leakage of this potent greenhouse gas may greatly reduce or even negate the potential climate benefits of using biogas in place of fossil fuels.[9]

The end use of biogas (assuming its production has been assessed to actually reduce emissions, per the comments above) must also be assessed. The mixing of biogas with fossil gas for injection into the grid will exacerbate infrastructural lock-in to fossil fuel use in the medium to long term. It is therefore submitted that supplying biogas to local offgrid industrial users would be a preferable option, provided it is used for electricity generation and is not mixed with fossil gas. Biogas can also be used to power buses and delivery vehicles, having the parallel benefit of reducing air pollution.

7.4 What can be done to increase sequestration through forestry (afforestation, extended rotations, and improved forest management)?

This must be recognised as unrealistic in terms of compliance with the 2021-25 budget period and of only limited utility for compliance with the 2026-2030 period. The precautionary principle must be applied in the short term and sequestration limitations recognised by alternative radical emission reductions in agriculture.

Any accounting of sequestration must be done on strictly scientific terms utilising the IPCC methodology. Any attempts to quantify removals must be accompanied by equally rigorous emission calculations to quantify the net balance.

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[8] Beausang, C., Mcdonnell, K., Murphy, F. (2021). Assessing the Environmental Sustainability of Grass Silage and Cattle Slurry for Biogas Production. Journal of Cleaner Production. 298. Available from: https://www.researchgate.net/publication/350380683_Assessing_the_Environmental_Sustainability_of_Grass_Silage_and_Cattle_Slurry_for_Biogas_Production

[9] Paolini, V., Petracchini, F., Segreto, M., Tomassetti, L., Naja, N., Cecinato, A., 2018. Environmental impact of biogas: A short review of current knowledge. Journal of Environmental Science and Health, Part A 53, 899–906. https://doi.org/10.1080/10934529.2018.1459076; Grubert, E., 2020. At scale, renewable natural gas systems could be climate intensive: The influence of methane feedstock and leakage rates. Environ. Res. Lett. https://doi.org/10.1088/1748-9326/ab9335; Liebetrau, J., Reinelt, T., Agostini, A., Linke, B., 2017. Methane emissions from biogas plants. IEA Bioenergy; Ebner, J.H., Labatut, R.A., Rankin, M.J., Pronto, J.L., Gooch, C.A., Williamson, A.A., Trabold, T.A., 2015. Lifecycle Greenhouse Gas Analysis of an Anaerobic Codigestion Facility Processing Dairy Manure and Industrial Food Waste. Environ. Sci. Technol. 49, 11199–11208. https://doi.org/10.1021/acs.est.5b01331; Baldé, H., VanderZaag, A.C., Burtt, S.D., Wagner-Riddle, C., Crolla, A., Desjardins, R.L., MacDonald, D.J., 2016. Methane emissions from digestate at an agricultural biogas plant. Bioresource Technology 216, 914–922. https://doi.org/10.1016/j.biortech.2016.06.031

Additionally, the regulatory system for forestry licensing has been systemically non compliant with EU environmental law for years, requiring a fundamental overhaul of the licensing and regulatory process. Any promotion of further afforestation should prioritise the development of a new sustainable forestry model that is in line with EU law, and increases the area of woodland and continuous tree cover. This model must be based on appropriate afforestation in the appropriate place and the implementation of environmental safeguards to protect water sources and biodiversity.

7.5 What opportunities are there to rehabilitate our peatlands and wetlands, and what can be done to realise these opportunities?

Vigilance and enforcement of existing legislation as regards illegal peat removal is required first and foremost. The current enforcement regime (both via the planning and EPA licensing systems) is failing to stop unauthorised peat cutting and drainage schemes. It relies heavily on members of the public to report instances of illegal turf cutting, and enforcement action is often slow if it occurs at all.

A bog rehabilitation scheme should be put in place for privately held drained wetlands, ensuring that all proposed projects are assessed on a bog-by-bog basis to ensure improvements optimise climate change mitigation, environmental ecological and hydrogeological benefits.

The incorporation of ponds as a measure for climate action within Local Authority Action Plans can act as a fundamental tool for carbon sequestration, as ponds have the potential to sequester 20-30 times the amount of carbon compared with woodlands, grasslands and other habitats.

The establishment of pond networks across Ireland also create ecological and landscape benefits, acting as wildlife refuges for biodiversity as well as measures for water provisioning, flood control, groundwater recharge, and pollution amelioration, therefore playing a key role as a nature-based solution in national climate adaptation. They constitute easily established low-cost actions that can be applied at national and local levels to tackle both the biodiversity and climate emergencies. In addition, they provide a host of community benefits, including opportunities for recreation, education, improved health and wellbeing, and community participation.

An Taisce's Legacy4LIFE project aims to promote the development of ponds as a measure for climate action, biodiversity restoration and conservation in a number of County and Town Development Plans and urges the forthcoming 2023 Climate Action Plan to incorporate this as one of its Actions.

7.6 What measures would support increased sustainable management of grasslands, including those areas on drained organic soils?

The land use review initiated this year should be used for evidenced based policy making. A thorough land use plan is necessary to identify areas which should be set aside for specific uses, for example areas of drained peat soil which should be rewetted, and areas of orchid rich grasslands or High Nature Value farmland which should not be afforested or managed intensively. This land use review should be overlaid with environmental sensitivity mapping to target particular land uses to the most appropriate places. To protect biodiversity and water quality, while addressing climate sequestration and mitigation, it is vital that these types of mapping tools are available, and populated with the necessary environmental information. Further research will be necessary to create these risk layers, for example Birdwatch Ireland initiated some forestry sensitivity mapping for birds, but this needs to be rolled out at a national level.

Additionally, soil health should be brought more to the fore, with a much greater focus on holistic soil health including structure and function, as opposed to just standard agronomic measures of fertility. Soil health is fundamental for truly sustainable land management which could maximise carbon sequestration.

7.7 What opportunities exist for increased use of cover crops, incorporating straw into tillage and for the application of regenerative agriculture practices? How can farmers be supported to take up these practices?

- Support and education must be provided on good soil management and balanced renewable fertiliser application, including incorporating straw on farms that cannot 'home compost' onsite.

- Promote increased varieties and diversification in cover crops, to support plant growth and minimise disease, diversity will also result in better soil and plant health whilst providing a food source for wider biodiversity within soil and those species depending upon cover crops for feed. Green cover should only be used where it will not impact on seed-eating farmland bird species.

- Supports for regenerative agricultural practises would include:
    - Continuity of transitional supports for a period of 2-4 years.

    - Regenerative agricultural practises such as low and no till methods aim to make use of the soils natural ability to build and retain organic material including fungi, soil moisture and nutrients with positive effect for emissions, support for farmers to encourage low and min till is required, as the learning curve is steep and fields often take several years to adjust resulting in drop off and slow uptake.

- Crop rotation improves soil health, reduces erosion and reduces fertiliser use, advice on best fit at farm level is essential to success, a one size fits all approach does not work and support for farmers to test best delivery by alternating nitrogen extractors and fixers, supplementing fields with seasonal cover crops and local organic fertilisers.

- Promote regenerative farming practice through education at all 3rd level institutions, within agricultural courses.

- Provide financial assistance to producers to process and market products from regenerative sources.

- Educate the public on food production and the difference between regeneratively produced food and conventionally produced food.

7.8 What sort of role could Ireland's marine environment (lakes, seas) have in delivering climate mitigation? What are the building blocks that need to be put in place to support the role of the marine environment in climate mitigation (e.g. a regulatory framework, measurement and accounting rules)?

The regulatory framework that protects marine areas from undue disturbance associated with offshore wind developments requires strengthening. Crucially, a statutory process for the designation and ongoing protection and management of Marine Protected Areas (MPAs) is urgently required given that the new marine spatial planning and consent regime is now in place. In absence of such a process, there is a substantial risk that planning consents may be granted in some of the most diverse and ecologically important areas in Ireland's marine waters, which would likely be designated as MPAs in the future. This would put these areas at immediate exposure to development that may reduce their ecological value. The rapid development of renewable energy capacity must be done without exacerbating the biodiversity loss crisis.

8. Public Sector Leading By Example

Public bodies should be required to demonstrate and regularly report on their compliance with Section 15 of the Climate Action and Low Carbon Development (Amendment) Act 2021:

15(1). A relevant body shall, in so far as practicable, perform its functions in a manner consistent with—

(a) the most recent approved climate action plan,
(b) the most recent approved national long term climate action strategy,
(c) the most recent approved national adaptation framework and approved sectoral adaptation plans,
(d) the furtherance of the national climate objective, and

(e) the objective of mitigating greenhouse gas emissions and adapting to the effects of climate change in the State.

9. Just Transition

Implementing a Just Transition must underpin the entirety of the 2023 Climate Action Plan, covering all sectors and all regions of the country.

9.1 What types of supporting interventions should be considered by the Government to address the four principles of our Just Transition Framework within individual sectors?

Initiation of a national low carbon planning accreditation programme for both rural and urban communities

This is to be implemented by An Taisce, with the support and resourcing of a suitable national agency such as the Department for Rural and Community Development. This accredited community low carbon planning will be based upon the Legacy4LIFE Green Communities Low Carbon Plan currently being trialled within the Maynooth Electoral Division by An Taisce.

Green Communities Low Carbon Plans shall seek to evaluate and monitor low carbon improvements, in line with a prescribed methodology, across the following Climate Action Plan sectoral themes:

- Energy
- Transport
- Buildings
- Industry (including Waste & Circular Economy)
- Agriculture
- Land Use
- Just Transition

To assist communities in reducing greenhouse gas emissions at local community level, their choices shall be informed through a defined methodology including that for the calculation of baseline emissions across these emission sectors.

Community participation with low carbon planning will be a vital part of the process for emissions reduction. It is also the case that greater community engagement with a low carbon community plan can be anticipated where the community has had a role in defining its preferred direction of travel.

Community participation, or citizen engagement as it is referred to within climate action plans, is recognised as being vital for reaching Ireland's 2030 and 2050 emission targets.

This is because it will require a strong effort at community engagement to carry the message of energy and climate awareness into people's lives and to affect our collective behaviour. To carry the public along the journey toward 2050 carbon neutrality we will need to include stakeholders in the planning of our low carbon towns and communities, and to adjust on society's terms when necessary.

The creation of a Green Communities Low Carbon community template and methodology, based on the research being conducted with stakeholders in Maynooth, will deliver significant progress across all three of the National Dialogue on Climate Change objectives. By developing a community low carbon plan that is both implementable and replicable, there is now the opportunity to partner with the National Dialogue on Climate Change, and other stakeholders, to implement an accredited Green Communities Low Carbon Plan programme nationally:

> "*The majority of the NDCA work programme will involve the design and delivery of activities to help people and stakeholders take an active role in delivering on climate action. This includes providing funding for innovative projects and ideas, …*"
> (Climate Action Plan 2021: Securing our Future, 2021, p60)

9.2 What additional targeted supports should be considered to minimise the impact of our climate policies to those on low income or households that are most at risk from fuel poverty (including transport and heating)?

An Taisce is one of 42 civil society organisations that signed a Joint Letter on Energy Poverty as part of the Government consultation on the Energy Poverty Strategy Review in September 2022. The recommendations detailed in the letter are very much of relevance to the 2023 Climate Action Plan and are listed below:

Cost of Living

- Increase rates of all core social welfare payments by at least €20 per week
- Pay all social welfare recipients a Christmas Bonus-style double welfare payment, before the end of October at the latest.
- Introduce a cost of disability payment of €20 per week.
- Introduce a system of Refundable Tax Credits, allowing low income workers who do not earn enough to use their full credit to have the unused portion "refunded", supporting their ability to deal with increasing living costs.
- Raise the Increases for Qualified Children (IQCs) payment by €7 for children under 12, and €12 for children aged 12 and over.

Energy Bills and Energy Poverty Response

- Target support to those most affected by rising fuel costs.
- Extend the existing moratorium on disconnections during winter months to a full ban on disconnections until at least Spring 2023.
- Double the Fuel Allowance rate from €33 to €66.

- Widen eligibility for the Fuel Allowance by including those receiving Working Family Payment removing the waiting period for those on Jobseekers, expanding eligibility to cover the specific living arrangements of Traveller families, and making it available to people on modest incomes in poorly insulated homes. A partial-rate Fuel Allowance payment should be available so it is not all-or-nothing for people just outside the eligibility criteria.
- Introduce an Energy Guarantee Scheme for people in poorly insulated homes & those on low incomes. This payment should be indexed to the current cost of energy required to keep a person's home warm based on a set quantity of units (kWh). The transition to an Energy Guarantee Scheme could be progressed by modifying the Fuel Allowance as outlined above.
- Introduce a one-off tax on energy companies that have seen high and increasing profits as a result of the energy price crisis. Recycle this tax revenue to assist consumers to offset higher energy bills.
- Require energy suppliers to reduce standing charges on energy bills and automatically allocate existing customers to the lowest tariff rather than only new customers.
- Update the expired Energy Poverty Strategy by immediately convening stakeholders to develop a renewed strategy. This should include requirements for up-to-date data on energy poverty to be collected and reported regularly and targets for energy poverty reduction.
- Many Traveller families did not receive the €200 electricity credit in April 2022. This credit should be applied immediately to Traveller families living on halting sites, sharing accommodation in group housing schemes, and/or living adjacent to the main home.

Energy Efficiency

- Prioritise worst-performing buildings and low-income/energy poor households in national retrofitting efforts.
- Increase targets and prioritise deep retrofits and solar PV for local authority-owned social housing this year with a view to retrofitting all social housing to a B2 standard by 2030.
- The Warmer Homes scheme (free energy upgrades) should be expanded to include properties in the private rented sector if the tenant is receiving the Housing Assistance Payment. However, eligibility should be contingent on the landlord providing a long-term lease to the tenant.
- Increase the individual grants available for low-cost, low-hassle improvements, such as cavity wall and attic insulation, from 80% to 100% for those at risk or suffering from fuel poverty.
- The Government should explore a sliding scale of grants and low-cost loans for deep retrofits based on an income assessment such that lower income households could avail of close to full funding for deep retrofit.
- Deploy Local Community Energy Advisors throughout every local authority as well as community organised support programmes to engage and inform hard to reach energy users who would most benefit from energy efficiency upgrades. Convene stakeholders immediately to advise on this process.

- Target energy poverty in rural areas by setting up a dedicated retrofitting programme for households solely relying on solid fuel heating systems.
- Commence preparation of a tailored retrofit plan for the private rented sector with clear milestones, targets and funding. Also introduce new grants for deep retrofits for landlords in the private rental sector on the condition that long-term leases are offered to tenants.
- Currently, Travellers in mobile homes cannot avail of any energy upgrades or SEAI grants, despite 77% of Travellers living in energy poverty before the current energy crisis began. SEAI support should extend to providing solar PV on year-round occupied mobile homes.
- The current caravan loan scheme for Travellers should be replaced with a new caravan rental scheme to ensure mobile homes are built to a residential standard in terms of heating and insulation, with a rating system similar to BER being adopted.
- Cease installation of fossil fuel boilers in homes receiving energy upgrades as part of the Warmer Homes Scheme where possible, ensuring priority retrofitting and installation of heat pumps in the first instance. In order to prevent fossil fuel lock-in and prioritise rollout of deep retrofits, ban the installation of oil and gas boilers in new homes this year, with no fossil fuel-based boilers installed in renovated buildings by 2025 at the latest.
- Increase SEAI resources to collaborate with organisations who work with those at risk of fuel poverty to coordinate promotion of the Warmer Homes Scheme and support uptake with wraparound services for participating households.

9.3 Are there any emerging areas of vulnerability in specific sectors of the economy as a direct result of the implementation of Ireland's climate action policies?

Tourism, a sector already facing significant pressures as a result of the Covid pandemic and the cost of living crisis, will suffer significantly from the non-implementation of climate action policies. This will occur as a result of biodiversity losses and landscape quality losses.

10. Research and Innovation

10.1 Have you identified any research and innovation gaps which need to be addressed? If so, how can these gaps best be addressed? Are there important areas of research and innovation, where Ireland currently does not have sufficient capability, that need to be developed? If so, what are these areas?

There is a need for improved indigenous policy research and design for agricultural policy, particularly for organic farming policy. The one-size-fits-all approach to policy often required at the European level does not always translate to effective on-the-ground action. While consideration of approaches from our European neighbours may provide insights and ideas, we would urge improved indigenous research to facilitate policy design better tailored to reflect the unique challenges and opportunities associated with the Irish agricultural sector,

to facilitate best-fit solutions and measures which improve uptake, actionability and therefore results.

Ireland has limited research capability in the area of nuclear energy and requires this to respond to developments aimed at climate mitigation in neighbouring jurisdictions.

10.2 Is the research and innovation system developing and retaining the skills needed to deliver on our climate ambitions?

The science is clear and the skills are developing. What is missing are political leadership skills.