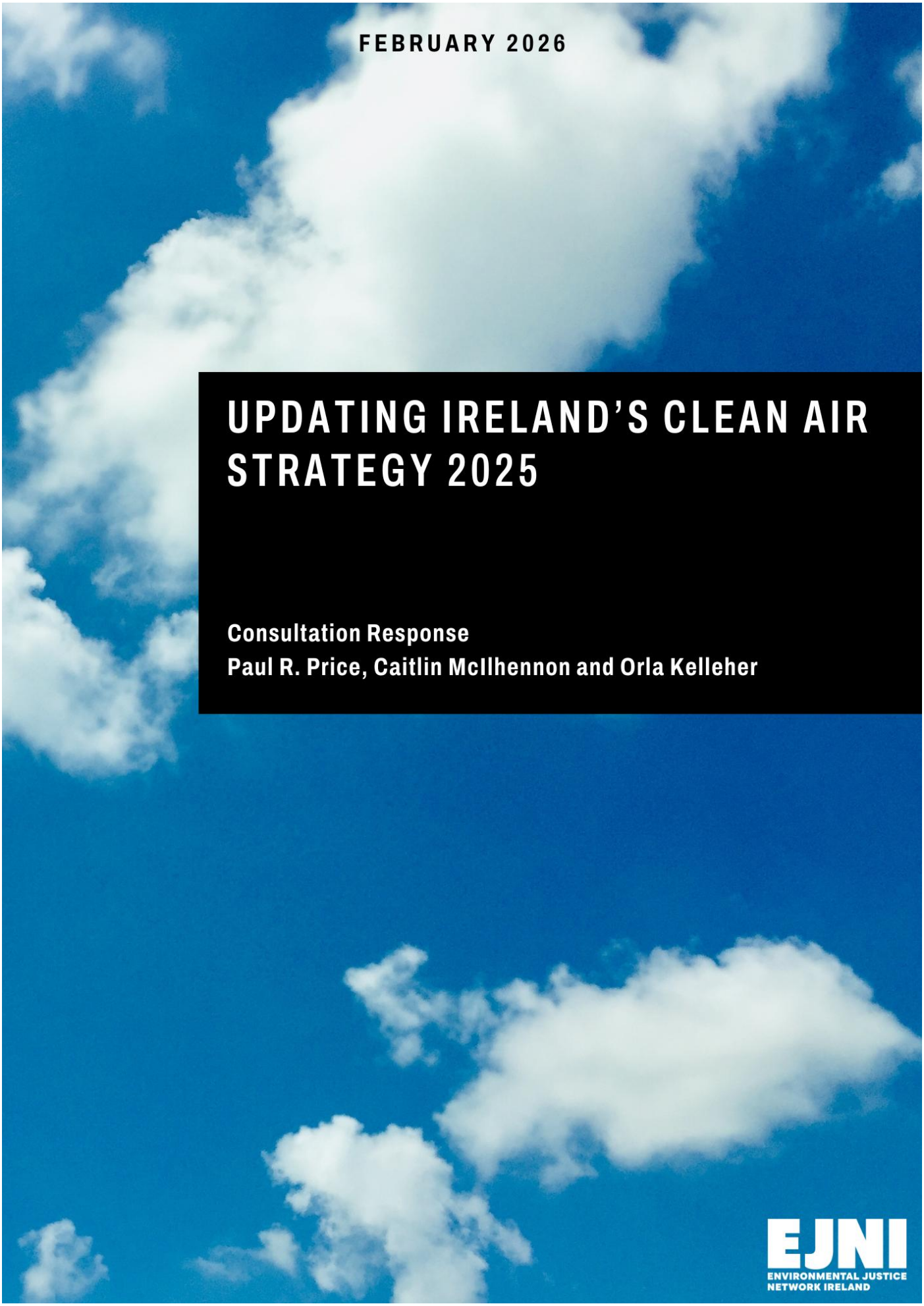

FEBRUARY 2026

UPDATING IRELAND'S CLEAN AIR STRATEGY 2025

Consultation Response

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EJNI
ENVIRONMENTAL JUSTICE NETWORK IRELAND

EJNI response to the Consultation on Updating Ireland's Clean Air Strategy 2025

Air pollution impacts human health, delicate habitats, and water quality. Addressing air pollution has strong co-benefits with effective climate action, biodiversity protection, and ensuring societal well-being. A robust Clean Air Strategy (CAS) for Ireland is essential to ensuring that the human right to a clean and healthy environment is upheld. It is also vital to ensuring Ireland's compliance with national, EU and international legal obligations. This document sets out EJNI's recommendations for revision of Ireland's Clean Air Strategy, including transboundary considerations, legal issues, agricultural ammonia and cross-border pollution, home heating and cooking, transport, just transition and issues associated with data centres.

Transboundary considerations on the island of Ireland

There are important transboundary considerations that should be considered in the development of Ireland's Clean Air Strategy. The border in Ireland is not a barrier to air pollution, which can negatively affect air quality hundreds of kilometres from its source. This means that transboundary air pollution is an issue which any clean air or pollution strategies north or south of the border in Ireland must also address. Ireland's Clean Air Strategy (CAS) states that "*there are no safe levels of air pollution*". The 2023 Heart Foundation report (which considers the island as a whole) estimates "*2,600 premature deaths across the island of Ireland associated with exposure to ambient PM2.5 air pollution in 2019 – over 900 in NI and almost 1,700 in ROI – with more than 200 deaths in both Belfast and Dublin*."[1] The report recommended establishing statutory alignment of air quality legislation in both jurisdictions, setting up a formal working group on air pollution between the relevant government bodies and at the North-South Ministerial Council and ensuring a coordinated approach to phasing out solid fuels for home heating.[2] Although enhancing air quality is clearly a transboundary environmental challenge, there is currently a lack of all-island alignment and coordination of measures to reduce air pollution are under-developed.[3] This should be addressed in a revised Clean Air Strategy. In addition, contrary to Article 5 of the Aarhus Convention, the CAS is evidently failing to ensure that the Government is adequately monitoring key air pollution indicators and making this information available to the public and decision-makers in Northern Ireland as well as Ireland.[4] In light of these deficits it is now imperative that cross-border governance arrangements, information frameworks, and consultation programmes are included in the updated CAS.

Legal issues

Air pollution & human rights

In 2022, the UN General Assembly (UNGA) recognised a clean, healthy and sustainable environment as a human right.[5] Ireland has consistently supported the recognition of a right to a healthy environment at an

[1] Goodman et al, 'Air Pollution and Mortality on the Island of Ireland' (2023), commissioned by the British and Irish Heart Foundation, available here.

[2] Ibid.

[3] Brennan et al, 'Linking the Irish Environment: Final Report' (2023) available here.

[4] Alison Hough, 'Access to Information on Emissions in a cross-border context on the Island of Ireland Post-Brexit', EJNI briefing paper available here.

[5] UNGA, Resolution on the human right to a clean, healthy, and sustainable environment (26 July 2022), A/RES/76/300. < https://digitallibrary.un.org/record/3982508?ln=en>.

international and regional level. The Irish government has not yet taken proactive steps to uphold the right at a national level.

An important dimension of the right to a healthy environment is the right to breathe clean air. The United Nations Special Rapporteur on Human Rights and the Environment in his 2019 report on clean air and human rights found that 'poor air quality has implications for a wide range of human rights, including the rights to life, health, water, food, housing and an adequate standard of living'.[6] States have 'an obligation to establish and maintain substantive environmental standards that are non-discriminatory, non-retrogressive and otherwise respect, protect and fulfil human rights'.[7] In this context, the Special Rapporteur noted that States should establish air quality legislation that incorporate the WHO [air quality] guidelines '*as legally binding national standards*'.[8]

In *KlimaSeniorinnen v Switzerland* the European Court of Human Rights affirmed that in cases involving environmental issues, Articles 2 (right to life) and 8 (right to respect for private, family life and the home) States have a positive obligation 'to put in place the relevant legislative and administrative framework designed to provide effective protection of human health and life.[9] In particular, States have an obligation to put in place regulations geared to the specific features of the activity in question, particularly with regard to the level of risk potentially involved'.[10] Additionally, 'States also have an obligation to apply that framework effectively in practice'.[11]

EU air quality laws

At the EU level, there is a detailed and legislative framework regulating emissions of certain air pollutants and ambient concentrations of air pollutants, which harm human health. Directive 2016/2284/EU, the National Emissions Ceiling Directive sets national emission reduction commitments for nitrogen oxides (NOx), non-methane volatile organic compounds (NMVOCs), sulphur dioxide (SO2), ammonia (NH3) and fine particulate matter (PM2.5) from 2020 to 2029 and from 2030 onwards. Directive 2016/2284/EU imposes certain procedural obligations on Member States such as drawing up of a national inventory of air pollutant emissions that must be updated annually and submitted to the Commission (Article 8) and the adoption of a National Pollution Control Programme which also must be submitted to the Commission and updated every 4 years (Article 6). The Directive has been criticised for its lack of transparency.[12] There are also persistent concerns about States not reaching their national emission reduction commitments for ammonia due to existing agricultural practices.

The Ambient Air Quality Directive, Directive (EU) 2024/2881 regulates the ambient concentration of certain air pollutants across the EU to avoid, prevent and reduce harmful effects on human health and the environment. The Directive establishes air quality standards for allowed levels in ambient air for sulphur dioxide, nitrogen dioxide/nitrogen oxides, particulate matter (PM10, PM2.5), ozone, benzene, lead, carbon monoxide, arsenic, cadmium, nickel, and benzo(a)pyrene (Article 1 and Annex I). It also sets common method and criteria for assessing ambient air quality across Member States (Articles 7-11). Directive 2024/2881 has reduced the annual limit values to be achieved by 2030 for most harmful pollutants, PM2.5 and NO2, to be reduced from 25 µg/m³ to 10 µg/m³ and from 40 µg/m³ to 20 µg/m³ respectively (Annex

[6] OHCHR, Report of the Special Rapporteur on issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment A/HRC/40/55 (2019) 8.

[7] OHCHR, *Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment Framework Principles on Human Rights and the Environment* A/HRC/37/59 (2018) 11 (framework principle 11).

[8] OHCHR, Report of the Special Rapporteur on issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment A/HRC/40/55 (2019) 12 (emphasis added).

[9] *Verein KlimaSeniorinnen Schweiz and Others v Switzerland* (Grand Chamber) App no 53600/20 (ECtHR, 9 April 2024) at [538(a)]

[10] Ibid.

[11] Ibid at [538(b)].

[12] Ludwig Kramer and Christopher Badger, *Kramer's EU environmental law* (9th edn, Hart, 2024) at [8-13].

I). It has also introduced a new daily limit for PM2.5 of 25 μg/m³ (with 18 days of variation) from 2030 onwards (Annex I). While this brings the 2030 limit values closer to the 2021 WHO Air Quality Guidelines [AQG], it does not align with them. The legal limits for the most harmful air pollutants, PM2.5 and NO2, which must be achieved by 2030, are double the limit values recommended in the WHO 2021 AQG. The Directive contains a review clause to assess options/timelines for alignment with WHO guidelines and the latest scientific evidence (Article 3). It also makes provision for different forms of air quality planning documents including short-term action plans to introduce emergency measures (Article 20) and air quality roadmaps and air quality plans to address exceedances of limit values on a longer-term basis. Directive 2024/2881 also introduces new provisions on access to justice (Article 27), compensation (Article 28), and penalties (Article 29). The transposition deadline is 11 December 2026.

The Industrial Emissions Directive (EU) 2024/1785/EU is the main EU instrument to reduce these emissions into air, water and land, and to prevent waste generation from large industrial installations and intensive livestock farms (pig and poultry). The IED establishes the obligation for the industrial plant to hold a permit based on criteria known as Best Available Techniques (BAT).

National air quality laws and policy

EU air quality law is transposed into Irish domestic law through a patchwork of regulations including the Air Quality Standards Regulations 2022, the European Communities (National Emission Ceilings) Regulations 2018 and the EPA Act 1992 (as amended). Additionally, Ireland has the Air Pollution Act 1987 (as amended) and Air Pollution Act 1987 (Solid Fuels) Regulations 2022. Section 28 of the Air Pollution Act confers powers on the High Court to prohibit or restrict emissions where the continuance of such emissions would give rise to a serious risk of air pollution. It remains to be seen how the Irish government will transpose the requirements of the revised Ambient Air Quality Directive. It is also worth emphasising that pursuant to Article 193 TFEU, Ireland is entitled to maintain and introduce more stringent and protective measures for air quality than required by EU law (subject to the caveat that these measures are compatible with the EU Treaties and notified to the Commission).

The 2023 Air Quality Strategy commits Ireland to set more stringent legal limit values for ambient air quality including the achievement of final WHO AQG values by 2040. There is no basis in EU law for Ireland not to place its commitment to achieving the WHO AQG values on a statutory footing.

Air Pollution (Amendment) Bill 2025

Based on the recommendations of the UN Special Rapporteur on Human Rights and the Environment, there is a strong human rights argument for Ireland to adopt the WHO AQG values as 'legally binding standards'. It is worth mentioning that citizens in Belgium and Germany have already taken legal action against their governments for failing to align national air quality legislation with the best available science (i.e. the WHO AQG values).[13]

EJNI welcomes the publication of the Air Pollution (Amendment) Bill 2025, which will amend the Air Pollution Act of 1987 to strengthen local authorities' enforcement powers and tighten the regulation of solid fuels. However, it is disappointing that government has not repealed and replaced the Air Pollution Act 1987 with a consolidated, and strengthened, Clean Air Act.

A strengthened Clean Air Act could restate key provisions of the 1987, including the underutilised section 28 powers of the High Court, but also enshrine the WHO AQG as legally binding standards and transpose

[13] ClientEarth, 'German citizens sue government as air pollution hits health' (26 September 2022) https://www.clientearth.org/latest/press-office/german-citizens-sue-government-as-air-pollution-hits-health/#:~:text=Residents%20of%20cities%20across%20Germany,some%20cases%20by%20around%2075%25 ; ClientEarth, 'Belgians follow German citizens, sue government over air pollution human rights issues' (24 October 2022) https://www.clientearth.org/latest/press-office/press/belgians-follow-german-citizens-sue-government-over-air-pollution-human-rights-issues/

the revised Ambient Air Quality into Irish law. This would make the existing piecemeal legislative framework governing air quality more accessible to members of the public.

Another disappointing feature of the Air Pollution (Amendment) Bill 2025 is that it is not being used to ensure relevant bodies have powers to implement measures like low emissions zones (LEZ's) and Clean Air Zones, which will be essential to achieve WHO AQG standards. The 2025 Progress Report on the Clean Air Strategy refers to a proposal to review of legislation to ensure such powers exist in a Department of Transport Strategy aimed at behaviour changes in transport.[14] It is illogical that this review has not formed part of the review of the Air Pollution Act 1987. The revision of the 1987 Act is the opportune moment to ensure relevant authorities have powers to establish LEZ and Clean Air Zones. This approach jars with the positive obligations identified in *KlimaSeniorinnen* to adopting a legislative and administrative framework that is '*designed to provide effective protection* of human health and life'. These *design flaws* of the Air Pollution (Amendment) Bill 2025 are at risk of missing a key opportunity to ensure *effective protection* of human health and life. The revision of Ireland's clean air legislation is a chance to develop a gold standard air quality governance regime with significant co-benefits for achieving climate targets and for public health. It should not be missed by kicking the proverbial can down the road.

Agricultural ammonia and NMVOCs

The ongoing, failure to limit cross-border agricultural ammonia and NMVOC pollution is a major concern that the updated CAS needs to address far more explicitly and urgently. The recent improvements in ammonia emissions are likely mainly due to non-policy issues (higher fertiliser cost, bad weather, derogation uncertainty), factors that can easily be reversed to increase production thereby easily cancelling out the claimed effect of MACC measures, and similar DAERA recommendations. High emissions from spreading non-manure digestate––derived from anaerobic digestion (AD) of slurry manure and grass feedstock––is an increased and increasing problem that requires the CAS and enforced monitoring measures to ensure low ammonia and NMVOC emissions or else restrict its use. Limiting total milk and meat protein production in Ireland and Northern Ireland––thereby limiting damaging ambient emissions associated with nitrogen excretion and slurry spreading––is now essential given the failure of Teagasc MACC and similar DAERA measures.

Issues

Agriculture is responsible for 99% and 97% of ammonia in Ireland and Northern Ireland, respectively. A large fraction of NMVOC air pollution is also due to agriculture and processing animal derived foods. In the border area, ammonia and NMVOCs are primarily due to nitrogen pollution, related to producing: meat from livestock cattle and sheep rearing; milk from dairy farming; and pork and chicken from intensive pig and poultry units.

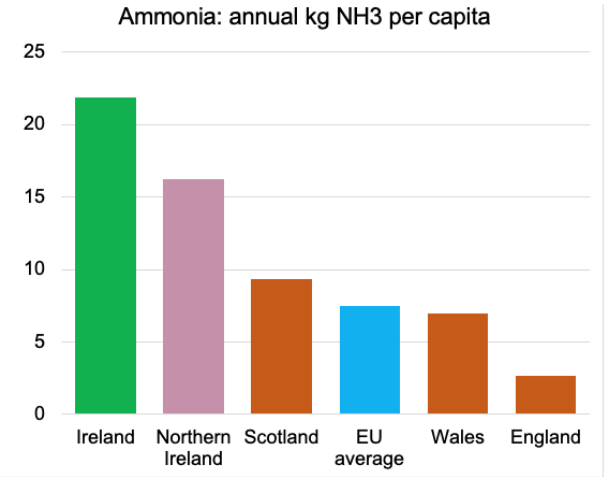
Ammonia air pollution to air is particularly harmful to human health, causing serious respiratory issues and irritation. Even at very low ambient levels, ammonia causes very significant damage to delicate habitats and water bodies as a pollutant and as a source of excess nitrogen deposition causing acidification.

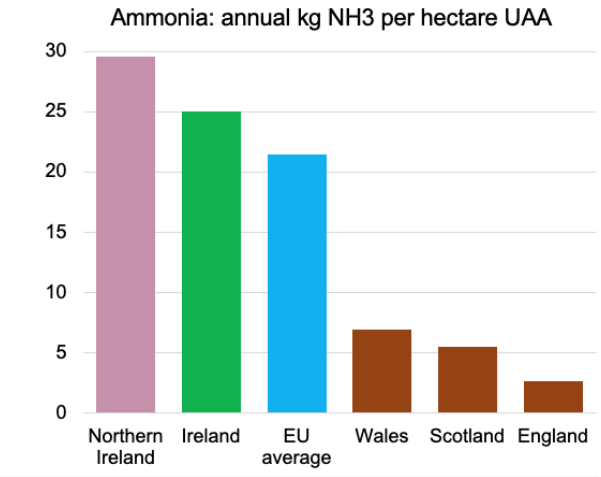
Ireland and Northern Ireland have high ammonia emissions

As shown in the charts15 below, on both a per capita basis or a per hectare UAA basis, both Ireland and Northern Ireland have high ammonia emissions. The agri-food farming and processing systems in both countries are highly reliant on intensive animal farming and the production of dairy and meat products.

[14] Government of Ireland, Clean Air Strategy for Ireland Progress Report 2025
[15] Charts created from EEA and UK data for 2023.

These systems very nutrient inefficient, resulting in large losses of nitrogen as ammonia and other nitrogen pollutants.



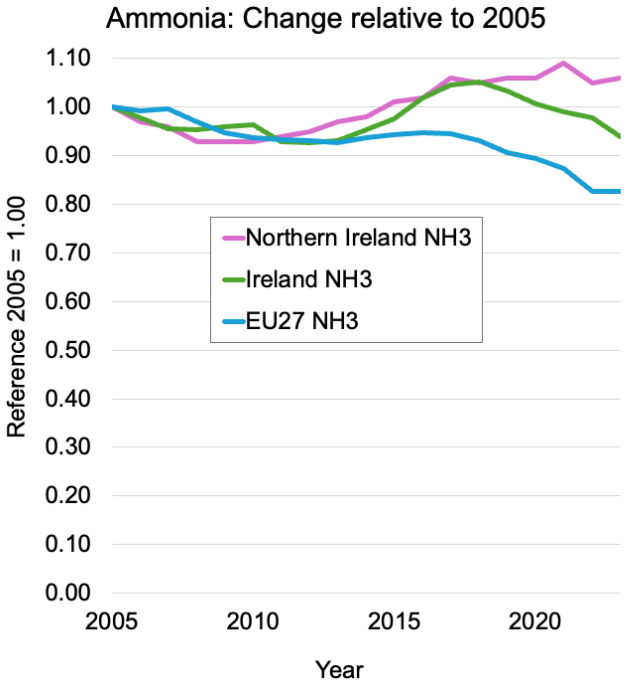


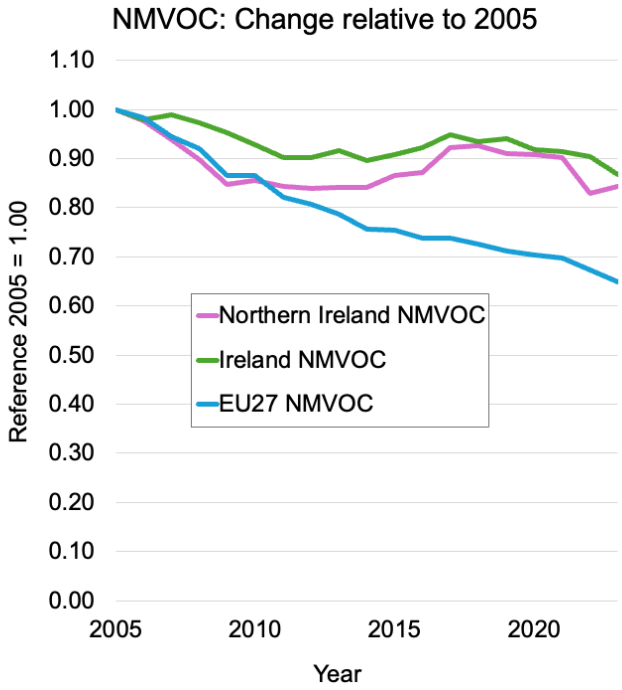
A comprehensive 2024 Defra report found that over Northern Ireland's entire land area, 92% is exposed to ambient ammonia concentrations above the critical level set to protect lichens and bryophytes (1 µg m-3) and 12.2% exceeds the critical level set to protect higher plants (3 µg m-3). Similarly high ammonia risk to sensitive habitats has been found across the north, south and east of the island of Ireland[16].

In its expert 2024 biodiversity report, the Office of Environmental Protection in Northern Ireland summarises its key findings regarding cross border pressures by stating there is "high agreement (high confidence) that a range of pressures are acting cross-border, including ammonia on terrestrial sites". The updated CAS should ensure that this pressure is reduced without fail.[17]

Ammonia mitigation to date has been an abject failure

As the charts[18] below show, both Ireland and Northern Ireland have abjectly failed to reduce the level of ammonia and NMVOC. There has been approximately no reduction in ammonia relative to 2005, the EU base-year, and NMVOC reductions are also notably lower than the EU average[19].

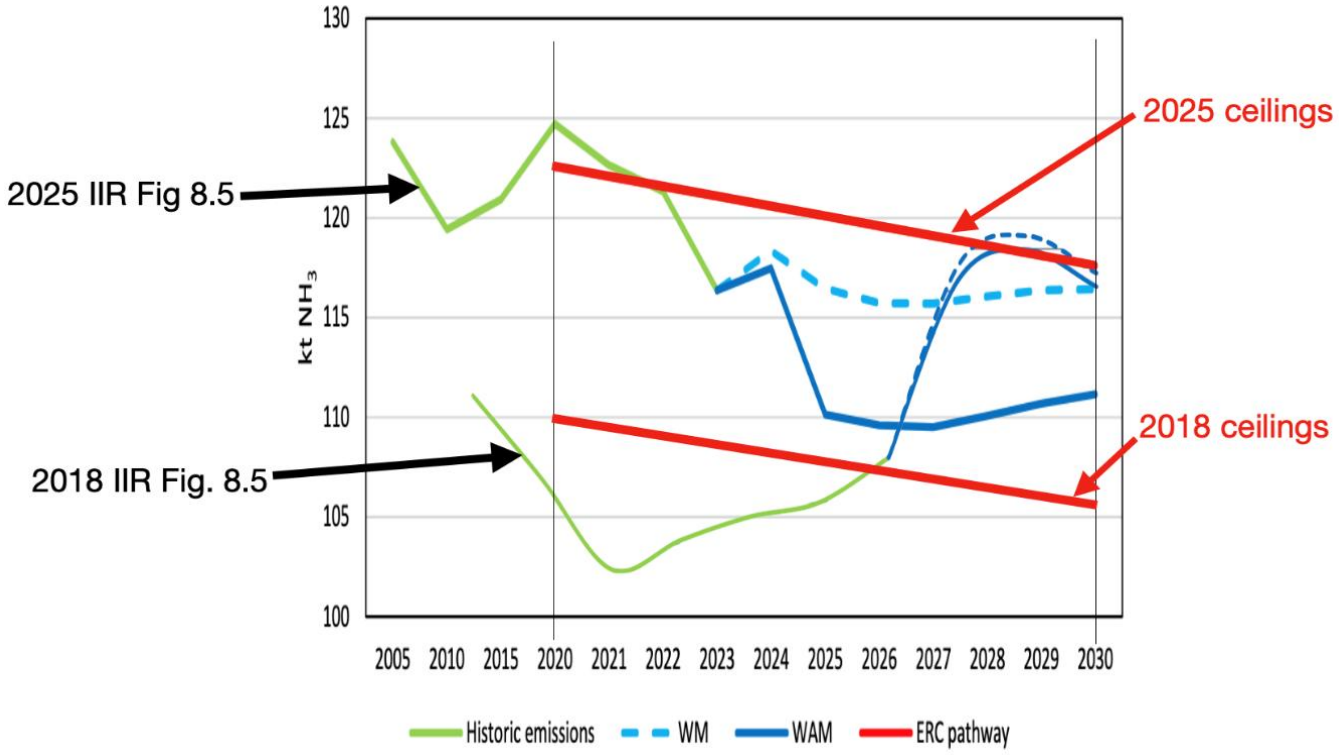




[16] https://doi.org/10.1016/j.scitotenv.2018.08.424
[17] https://www.theoep.org.uk/report/drivers-and-pressures-northern-ireland
[18] Own charts from EEA and UK data. PRP.
[19] https://uk-air.defra.gov.uk/library/reports?report_id=1157

Ammonia regulatory failure – increased national ceilings allow increased pollution

Illustrating this degradation of public health and ecological protections, the annotated figure below, combines and contrasts the ammonia pathways and annual ceilings in the Figure 8.5 charts from both the 2018 and 2025 Informative Inventory Reports for Ireland. Comparing the ammonia ceilings (red lines) shows the extraordinary increase in the allowed 2020–2030 ceiling, between the reporting in 2018 and 2025. This represents a stark degradation in the targeted standard for ammonia at a serious cost to the environment and public health. This increased ceiling is the reason that agriculture is now deemed to in compliance with the EU ceiling.



The role of agri-food vested interests on both sides of the border in continuously working to delay and weaken[20] ammonia and NMVOC regulation and public protections from these harmful agents should be acknowledged as an issue of public concern to be directly addressed in the updated CAS. Reports that focus on the economic costs of ammonia regulation while ignoring or downplaying the very large societal health and ecological impact costs of ammonia pollution should be considered with caution.[21]

It is misleading by omission that departmental and agency documents fail to state the regressive change in ammonia ceilings clearly. The extraordinary recalculation changes in pathway data should also be described and explained. The CAS and the Clean Air Strategic Implementation Group (CASIG) should ensure that any such substantial regulatory and data changes over time are made clear in all progress reporting.

MACC measures are easily cancelled out by increases in agricultural activity

The CAS appeals to Teagasc MACC, Ag-Climatise and Nitrates Action Plan measures to reduce agricultural ammonia pollution, even though agricultural emissions data over the past 13 years of policy supported MACC measures shows that any effect of adopting these on-farm measures has been easily cancelled out by increases in livestock or milk production. Teagasc's detailed MACC analysis admits[22] that farmer adoption of profitable MACC measures such as EBI (economic breeding index) have simply enabled

[20] https://www.ersnet.org/news-and-features/news/european-parliament-votes-on-national-emission-ceilings-directive/#:~:text=The%20targets%20are%20not%20ambitious,to%20fine%20particulate%20matter%20(PM2.

[21] https://www.ufuni.org/site/wp-content/uploads/2024/02/KPMG_DCNI_Ammonia-Impact-Study_02.02.24.pdf

[22] p.36, https://www.teagasc.ie/media/website/environment/climate-action/climate-centre/MACC-2023.pdf

reinvestment of increased profits back into increased dairy production, resulting in a backfire effect such that such MACC measures have in fact increased total national GHG emissions. Similarly, no apparent effect on ammonia emissions is evident from the similar efficiency advice given by Daera in Northern Ireland where ammonia pollution has increased.

The same failure should be expected for agricultural air pollutants because emissions savings from efficiency improvements are easily surpassed by increased emissions from increased activity. This basic MACC assessment failing should be acknowledged and accounted for in the CAS.

Given the recent increases in nitrogen fertiliser use (a 24% increase in Ireland over the past two years), due to reduced costs, the consequent increase in animal nitrogen excretion is liable to result in a substantial increase in ammonia emissions in both Ireland and Northern Ireland can be expected in the near term.

Spreading AD digestate and protected urea increases ammonia pollution

As a significant measure to reduce air pollution, under Agriculture the CAS includes, "Supporting the use of non-chemical nutrients such as bio-fertilisers". It is now possible that 'bio-fertilisers could now include the highly questionable recent EU reclassification of AD digestates as 'Renure' is being allowed by the EU on highly questionable grounds[23].

Given the example of Northern Ireland where the land spreading of digestate has greatly increased ammonia emissions, Ireland's planned large-scale expansion of biomethane production (requiring of the order of 150 large AD plants) is extremely concerning for Ireland's air quality.

The EPA submission on the Draft National Biomethane Strategy (NBS) stated that "The potential risk of environmental impacts from mismanagement of anaerobic digestion plants is high" and that multiple AD impacts, including negative air quality effects, "occur regularly". Moreover, An Taisce has listed multiple scientific references indicating that AD biomethane is unlikely to have much if any climate benefit.[24] Farming solar energy via PV panels is both far more land efficient than biomethane production with no impact on air pollution.

The EPA submission strongly advised that, to reduce the risk of poor implementation, "the Strategy should clearly set out the actions, targets, timeframes and responsible owners for implementation". The final NBS fails to address the multiple and very serious issues raised during its public consultation.

The CAS Update needs to specifically regulate air pollution from AD digestate spreading and from AD plants (including requiring independent remote monitoring of particulates, VOCs and methane losses).

Heat and Transport Particulate and NOx Air Pollution

The CAS update needs to ensure that the serious air pollution impacts of continued fossil fuel combustion in houses and commercial buildings, and transportation need to be addressed as a matter of urgency.

In addition, addressing Ireland's air pollution issues and improving air quality standards requires a holistic approach. Addressing air quality issues caused by Fine Particulate Matter ($PM_{2.5}$) and Nitrogen Dioxide (NO_2) cannot be achieved without addressing: (i) structural causes of Ireland's high levels of energy and transport poverty, (ii) delivery gaps in energy efficiency. Ireland's Clean Air Strategy must be coherent and consistent with the measures that are set out in Ireland's National Climate Action Plan 2026 and Social Climate Plan. Without the production and effective implementation of these plans, it will prove difficult for Ireland to make progress towards addressing these persistent air quality issues and meeting air quality targets. To ensure cohesion the government must strongly integrate clean air considerations into climate policy development across departments.

[23] https://eeb.org/en/renure-science-ignored-as-eu-weakens-nitrate-rules-favouring-big-agribusiness/
[24] https://www.antaisce.org/news/draft-national-biomethane-strategy-lacks-scientific-and-economic-credibility

Home Heating and Cooking

There are several issues with home heating and cooking which should be addressed within the CAS:

- *"Ecodesign" standard wood burning stoves are still highly polluting*

Multiple scientific studies over the past ten years have confirmed that solid fuel stoves for domestic heating produce dangerous levels of indoor and outdoor pollution.

The 2022 Ecodesign regulations, introduce in Ireland and Northern Ireland, require all new solid fuel room-heating stoves to meet seasonal efficiency and air pollution emissions requirements for PM, NOx, carbon monoxide and organic gaseous compounds. (Existing stoves, already in homes, are exempt from this regulation.)

The 2022 Annual Report from England's Chief Medical Office found that Ecodesign stoves emit about one eighth the particulates compared to older stoves or open fires. However, heating with an Ecodesign stove still causes 450 times more air pollution from PM2.5 fine particulates than heating the same house with gas-heating, and electric heating such as heat pumps is clean, causing no local air pollution at all.[25]

- *Dry wood heating fuel needs to be regulated in urban areas as it is highly polluting*

Dry wood is far more polluting than smokeless coal, so sales and deliveries of dry wood to urban areas need to be restricted.

England's Chief Medical Officer's 2022 Annual Report on Air Pollution states that burning dry wood emits about a quarter of the PM2.5 fine particles compared to burning wet wood. However, dry wood emits four times as much PM2.5 particles compared to burning smokeless coal.[26]

Due to high particulate emissions, the CAS update should ensure that dry wood deliveries into urban areas for heating fuel are regulated, in the same way as smoky coal sales and deliveries have been restricted. The CAS update should also consider designation of "Smoke Control Area", where emitting smoke from chimneys is illegal, as is already the case in much of Northern Ireland.[27]

- *A large-scale transition to heat pumps for domestic heating will require dedicated funding from the European Social Climate Fund*

In Ireland, the residential sector is a significant contributor to GHG emissions (11.1%). Ireland's 2025 Climate Action Plan acknowledged an urgent need to reduce and ultimately phase out Ireland's fossil fuels in the built environment and replace with low carbon alternatives such as heat pumps. Ireland's CAP aimed for 500,000 residential retrofits and the installation of 400,000 heat pumps by 2030 as key measures to meet the built environment sectoral emissions ceiling. However, under current trends the 400,000 unit goal will not be achieved until 2042. Energy efficiency is a cornerstone of climate mitigation, air pollution reduction and social protection. Despite progress under Ireland's National Retrofit Plan (NRP), many households still face barriers in accessing and benefiting from the energy efficiency programmes set out in the NRP.

The CAS update should acknowledge that the cost of reducing air pollution (and GHG emissions) due to home heating needs to be shared by society, as carbon pricing under ETS II will pose significant

[25] Figure 1 in https://assets.publishing.service.gov.uk/media/639aeb81e90e0721889bbf2f/chief-medical-officers-annual-report-air-pollution-dec-2022.pdf

[26] p.218 in https://assets.publishing.service.gov.uk/media/639aeb81e90e0721889bbf2f/chief-medical-officers-annual-report-air-pollution-dec-2022.pdf

[27] https://www.airqualityni.co.uk/laqm/smoke-control-areas

challenges for low-income households.[28] The European Social Climate Fund aims to address the negative socioeconomic effects of the Emissions Trading Systems 2 (ETS2), which extends carbon pricing to buildings and road transport. Each Member State is required to submit a Social Climate Plan (SCP) in order to gain access to the fund of 86.7 billion for the entire European Union for the period 2026-2032. This is an important opportunity for Ireland to frontload investment and provide targeted, structural solutions that tackle fossil fuel dependency in the residential building sector and end cycles of energy poverty. However**,** Ireland missed the deadline to submit a Social Climate Plan to the European Commission by the 30 June 2025, delaying access to these vital funds and missing another opportunity to deliver measures, milestones, and targets for energy efficiency, building renovation, sustainable mobility, and emissions reduction (see EJNI's paper "*What Ireland's Social Climate Plan must include: six key priorities*"). In response to a parliamentary question the Minister of the Environment announced that they requested an extension to the deadline for the end of March 2026.

Societal electrification of home heating will reduce air pollution and GHG emissions, but it will require a large-scale transition from fossil fuelled (turf, oil, coal and gas) combustion appliances to the use of heat pumps in houses that are retrofitted to an adequate (B2) insulation and air tightness level, with some degree of controlled ventilation. Retrofitting older houses to the required standard and the significant upfront cost of heat pumps will require Ireland to recycling part of its share of ETS2 carbon revenues into a mix of grants and zero-interest loans, particularly to support energy-poor households.

- *Gas cookers are major sources of indoor air pollution*

As with wood stoves, multiple scientific studies[29] are showing that gas cookers are major sources of indoor air pollution (NOx and particulate matter). The CAS Update needs to address this issue as a matter of urgency.

Transport

Transport poverty is especially prevalent in rural Ireland, where households depend on cars due to absence of reliable transport. Low-income rural households spend a disproportionate share of income on fuel, and lack affordable alternatives (public transport, e-bikes, shared mobility).[30] This leaves them particularly vulnerable to rising carbon prices.

The development of Ireland's SCP provides a key opportunity to address the lack of viable, affordable, and accessible transport alternatives (particularly in rural areas)[31] and tackle Ireland's car-dependent model which acts as a significant contributor to Ireland's levels of Nitrogen Dioxide emissions.

The update to the CAS must use this opportunity to tackle air pollution in an equitable way and address structural causes rather than perpetuate cycles of transport poverty.

[28] https://ejni.net/wp-content/uploads/2025/08/SCF-and-SCP-Briefing-March-25-Updated.pdf
[29] https://www-science-org.dcu.idm.oclc.org/doi/10.1126/sciadv.adm8680
https://doi.org/10.1093/pnasnexus/pgaf341
https://research.birmingham.ac.uk/en/clippings/gas-stoves-mean-dangerous-pollution-in-most-homes-study-finds/
[30] https://ejni.net/publications/consultation-response-development-of-irelands-social-climate-plan/
[31] What Ireland's Social Climate Plan must include: Six key priorities - EJNI

Just Transition

In recent years, the concept of a 'just transition' has evolved to address various dimensions of inequality, justice and vulnerability.[32] The concept of a 'just transition' has been directly incorporated into Ireland's Climate Action and Low Development Act 2015 (as amended) by section 4(8) which requires the Government and Minister to have regard to the 'requirement for a just transition,' amongst 17 other criteria, in climate planning.[33] It is widely acknowledged that just transition policies and initiatives can deliver useful measures to address social risks of decarbonisation and the disproportionate impacts on vulnerable communities. Ireland's failure to effectively address energy poverty continues to jeopardise its progress towards a fair and just transition.

"*Principle 20 of the European Pillar of Social Rights specifically states that access to vital services, including energy, is a social right that must be provided to all people, particularly those in disadvantaged situations*" (European Commission 2017).

As set out above, addressing Ireland's air quality pollution is closely linked to phasing out reliance on fossil fuels for home heating and the delivery of energy efficiency measures. However, a recent report by Pobal investigated the relationship between area-level deprivation and household renewable energy usage, and the findings revealed a stark divide in Ireland's clean energy transition, in that disadvantaged communities are almost five times less likely to benefit from renewable energy at home. Ireland's update to the CAS and the measures therein must incorporate the risks of unequal distribution of the costs and benefits of the green transition and ensure that wealthier households do not solely capture the benefits of renewable deployment and avoid locking in vulnerable households to cycles of energy poverty and fossil fuel reliance.

Impact of Poor Air Quality on Vulnerable Groups

The impact of air pollution is unequal, undeserved communities live, work, or study closer to major roads, industry and in areas of higher housing density which leads to them facing disproportionately higher levels of pollution. In addition, there are certain groups of people that are more vulnerable to the impacts of air pollution, including pregnant people, children, older people and those with preexisting health conditions.

While solid fuel stoves for domestic heating are known to produce dangerous levels of indoor pollution, the Institute of Public Health noted that cold and energy inefficient homes are a serious public health concern in Ireland, contributing to increased rates of respiratory and cardiovascular sickness as well as excess winter mortality.[34]

The update to the CAS must acknowledge the interconnected health ramifications caused by reliance on solid fuel heating *and* the inability for vulnerable groups to heat their homes. This reiterates the necessity for coherence with Irelands CAS and climate plans and polices owing to the link between renewable energy access, energy equity and improving Ireland's air quality.

Gendered Vulnerability to Energy and Transport Poverty

Groups that are more vulnerable to experiencing energy poverty in addition to those living with low incomes include women, disabled people, migrants, people seeking refuge and asylum, travellers and lone parents.

There are many factors that have led to a gendered vulnerability to energy and transport poverty. As Feminist Communities for Climate Justice have highlighted, '*the cultural and gendered associations that see women carrying out the majority of caring work […] plays a role in gendered uses of energy and has*

[32] Setenay Hizliok et al, 'What is the Just Transition and What Does it Mean for Climate Action?' (2024) Grantham Research Institute on Climate Change and the Environment.
[33] Mapping-just-transition-legal-obligations-24.05.25-.pdf
[34] Institute of Public Health. (2022) 'Blog: Housing and Health – Why tackling cold homes is a public health issue'.

implications for gendered vulnerability to energy poverty'. However, Ireland has not integrated a vulnerability lens to its climate plans and policies and lacks disaggregated data to capture the real disproportionate impacts of energy poverty on women.

Moreover, it is necessary to address the structural causes of energy and transport poverty by applying an intersectional approach in policy responses. For example, a study found that women rely heavily on car transport due to disproportionate caring responsibilities, increased safety concerns, and lack of viable alternatives.

Identifying national vulnerabilities to energy and transport poverty in Ireland's social climate plan

On the 18th of August 2025, a joint letter signed by environmental and social justice CSOs was sent to Ireland's Minister for Climate, Energy and the Environment, raising serious concerns regarding the decision to replace the long-promised Energy Poverty Action Plan (EPAP) with the broader 'Energy Affordability Action Plan'. The abandonment of the measures promised in the EPAP undermined longstanding commitments to address the structural, intersectional, and justice-based dimensions of energy poverty in Ireland. The new framing of 'energy affordability' risks sidelining the most vulnerable in society, including disabled people, older people, single-parent families, migrants, Travellers, and renters. Energy poverty is not only a matter of high bills but of income inequality, poor-quality housing, and energy inefficient rental stock.

Equally pressing, Ireland's recent National Energy and Climate Plan (NECP) update relied heavily on measures contained within the now defunct EPAP to meet energy poverty obligations at EU level (see EJNI's analysis on Ireland's National Energy and Climate Plan), and did not include a national indicative objective to reduce energy poverty required by Article 3(d) of the Governance Regulation. The European Commission explicitly urged all Member States, in its guidance for the NECP updates, to set such an objective, particularly "*considering the current spike in energy prices*." The Commission's formal assessment of Ireland's National Energy and Climate Plan found that the plan neither assessed impacts on vulnerable groups nor provided a credible basis for Ireland's Social Climate Plan.[35]

Ireland's SCP is a significant lever in embedding social justice and just transition principles in Ireland's climate infrastructure. DCEE must learn from its failure to adequately meet EU level energy poverty and just transition obligations in the NECP and adhere to obligations set out in the SCF regulation to develop and publish an integrated national vulnerability map that sets out who counts as 'vulnerable' incorporating a multidimensional definition rather than income alone.

Data centre electricity demand is increasing air pollution

The CAS update need to make clear that data centres are increasing air pollution to make this fact clear to other areas of government. As with GHGs and water pollution, the direction of travel counts: total air pollution must decrease because there is no safe level of air pollution, therefore activities that increase air pollution need to be curtailed.

The electricity grid and the gas supply grid are both shared on an all-island basis. Therefore, the CAS update needs to include an all-island air pollution strategy agreed on a cross-party basis. Data centres already use 22% of grid electricity and are projected to use as much as 30% by 2030, increasing related gas-fired electricity generation. Data centre planning applications are also including on-site or near-site power stations with direct connection to the gas grid, as well as on-site emergency diesel generators.

[35] Page 54.

Additional activities that increase electricity and gas grid consumption, over and beyond that existing at the time of the 2015 Paris Agreement or the 2016 NEC Directive, inevitably increase the consumption of fossil gas relative to a transition away from fossil fuel. New data centres are diverting renewable energy away from decarbonising existing activities.

The rapid expansion in data centre numbers in both Ireland and Northern Ireland is therefore having direct and indirect effects, increasing both the costs of electricity supply and increasing total resultant air (and GHG) pollution, compared to an alternative scenario in which no new data centres had been allowed. SEAI project that the additional data centres result in an additional 4.5 MtCO2e in GHG emissions, which will have the corresponding effect on air pollution from burning this additional fossil "natural" gas.

A 2024 expert academic report concludes that:
"unchecked data centre growth poses a significant threat to Ireland's climate commitments. Without decisive action, data centres will continue to divert renewable energy to serving demand growth rather than displacing fossil fuels, deepen reliance on fossil fuels, and exacerbate Ireland's carbon budget overshoot and energy security threats. A comprehensive policy framework is urgently needed to ensure Ireland's economic development and enterprise strategy are aligned with legally-binding climate commitments."[36]

CPPAs [corporate power purchase agreements] aiming to offset data centres climate pollution are not doing so (even if the entirety of a data centre's power supply is covered) because data centre CPPAs are diverting renewable energy away from societal activities (electricity, transport and heating) that would otherwise have been able to decarbonise. As the same report evidences:

"Electricity demand from data centres far outstripped the additional renewable energy being procured through CPPAs between 2020 and 2023, and the proportion of CPPAs undertaken by data centres is itself unknown."

The same conclusions apply to increased air pollution due to the expansion in data centres numbers, thus data centre expansion needs to be limited.

The CAS Update should acknowledge these serious issues for national and transboundary air quality from continued increases in data centre energy demand.

[36] https://www.friendsoftheearth.ie/assets/files/pdf/data_centrres_and_the_carbon_budgets_-_prof_hannah_daly_dec_2024.pdf