Friends of the Earth

Friends of the Earth submission to Department of Environment Climate and Communications Call for Expert Evidence on the Climate Action Plan 2023

20 September, 2022

Friends of the Earth
9 Mount Street Upper
Dublin 2 D02 K659
www.foe.ie

1. Introduction

1.1 Friends of the Earth welcomes the opportunity to respond to the Department's consultation. Friends of the Earth Ireland is a community at the heart of the growing movement for a just world with zero pollution. We are part of the world's largest grassroots environmental network. We campaign and build movement power to bring about the system change that is needed for a just world where people and nature thrive. We promote education and action for environmental sustainability and justice and focus on Ireland's response to the big environmental challenges of our time, including the climate emergency and the achievement of the Sustainable Development Goals. We support people and group working autonomously to connect their local work to the bigger national and international picture. We have particular experience in participatory education, campaign strategy, shaping public debate and driving policy change.

1.2. Friends of the Earth is a member of the Stop Climate Chaos Coalition and the Environmental Pillar. We endorse their submissions and welcome the opportunity to engage as part of these networks with Government and relevant Departments in relation to the implementation of the Climate Action Plan.

2. Consultation Process

2.1 We welcome the Department's approach in gathering views of the public and stakeholders in the form of the individual questionnaire and a separate call for expert evidence. However, we have concerns that the latest Departmental analysis and modelling by consultants on potential pathways and trade-offs does not feature as part of the consultation. Friends of the Earth wishes to support the Department and provide informed views. There is a concern that providing short answers to broad questions, as opposed to tailored responses in light of the latest Departmental research and findings, may always not be particularly helpful either for the Department or for the general public. Transparency of decision-making is essential and we recommend that the Department produces data/analysis as part of future consultations.

2.2 We welcome the Department's proactive approach in organising National Stakeholder Forum meetings. The Forum brought together relevant and diverse stakeholder groups to discuss key issues related to climate action. Future Forums would benefit from greater balance and inclusivity in the stakeholder participation in specific workshop sessions e.g. there was a lack of community representation in the offshore wind energy workshop. Further, providing feedback to the attendees on progress on implementation of recommendations from previous Forums should be prioritised. Engagement with impacted, vulnerable and youth groups should also be prioritised.

2.3 As previously noted, a fundamental element in ensuring the success of climate action is citizen buy-in through long-term, inclusive and transparent public participation. The approach taken by EirGrid for their consultation on the development of the electricity grid, and also by DFA for their consultation on a new international development plan in 2019, are instructive in this regard. We recommend that the Department establishes an advisory group for subsequent consultations (as has been organised by EirGrid for their process). We recognise that a more comprehensive approach may raise resource challenges and we

welcome the opportunity to discuss how such challenges can be overcome and how ongoing public participation can be further developed across all relevant Departments.

2.4 We wish to express our dissatisfaction that, for second year in a row no questions in the Climate Action Plan consultation address the major challenge of fossil fuel infrastructure, generation, supply or ongoing subsidies (either in the context of electricity generation or heating), as well as their potential to lock-in emissions, undermine renewables development and result in stranded assets. This is a fundamental gap in the consultation which runs the risk of undermining public confidence in the process.

2.5 Similarly, the consultation does not make any reference to Ireland's responsibility to do its fair share of the global effort to meet the goals of the Paris Agreement, specifically limiting temperature increase to "well below 2°C above pre-industrial levels and to pursue efforts to limit warming to 1.5°C". It is essential that Ireland does its fair share to secure a system-wide, transformational decline in the use of fossil fuels. In the absence of rapid emissions mitigation, the world will pass 1.5°C in the early 2030s. To have any chance of limiting global warming to 1.5°C we need to cut global emissions more or less in half by 2030[1] (this means cutting 28GtCO2eq off annual global emissions) and to near zero by 2050. Ireland will continue to use up an oversized portion of the remaining global carbon budget for the rest of this decade. However, Ireland can do more, faster, before 2050. If the world needs to get to near zero emissions by 2050, rich countries must get there sooner.

2.6 Finally, the consultation does not reference the equally important question of climate finance. Many of the world's poorest communities are already facing increased levels of flooding, drought and heat waves, disproportionately experiencing the worst impacts of climate breakdown despite having least responsibility for causing the crisis and least resources to adapt. The poorest half of the world, over 3.5 billion people, are responsible for just 10% of historic carbon emissions.[2] Rich countries, who are responsible for the vast majority of polluting emissions, have an obligation to provide finance to help poorer countries adapt to climate impacts. Wealthier, high-emitting countries - including Ireland - have to date failed to collectively provide the $100bn per year pledged to help poorer countries deal with the worst impacts of climate change. It is an essential part of our global responsibility and a key commitment under the Paris Agreement. It should be part of any comprehensive Climate Action Plan and place specific responsibilities on relevant parts of Government, including DECC, DFAT, DPE and D/Finance.

3. Priority recommendations

Friends of the Earth wishes to raise the following priority recommendations with the Department.These recommendations are further addressed as part of responses to specific consultation questions.

[1] UNEP (2021) Emissions Gap Report 2021. Available at: https://www.unep.org/resources/emissions-gap-report-2021

[2] See: https://www.oxfam.org/en/press-releases/worlds-richest-10-produce-half-carbon-emissions-while-poorest-35-billion-account

A. Transport: Break our dependence on private cars and oil for mobility

Cycling, walking and buses to school

- Make it possible, safe and convenient for every child to go to school without using a car by September 2023
    - Guaranteeing a free school bus place for all children who live more than 1km away from school. Invest in a fleet of electric buses and mini-buses.
    - Building safe routes to school for cycling and walking within a 3km radius of every school.
    - Closing more school streets to cars and use one way systems to make arrival at school on bike and foot as safe as possible and ban engine idling near schools.

More, cheaper public transport

- The reductions in public transport fares have been popular in Ireland, but Germany's €9-a-month scheme was a runaway success. Trial a similar scheme here for 6 months. Meanwhile, accelerate the roll out of Bus Connects and develop a rural transport plan based on a vision of "every village, every hour".

EV loans in rural Ireland, congestion charges in Dublin

- Immediately introduce a state-backed interest-free loan for rural households to buy EVs. Get the most polluting cars, especially SUVs, off our city streets as soon as possible. Introduce a congestion charge in Dublin immediately that escalates by emissions and weight and extend it to other urban areas as more public transport comes on stream.

No new fossil fuel cars from 2026

- End the sale of new internal combustion engines (ICE) cars within 3 years. Start by immediately raising VRT on cars based on emissions and weight, so that the highest band is at €5,000 by 2025. Ban the sale of new ICE cars from 2026.

B. Buildings: Keep people warm and break our dependence on fossil fuel heating

Insulate people from fossil fuel prices

- Insulate 100,000 homes in 2023, prioritising cheaper measures that save energy and money quickly. The focus must be on reaching those most at risk of energy poverty and those who rely on coal and turf. Don't wait for them to apply to SEAI for a grant, sit down with the likes of the SVP and Age Action to plan a coordinated outreach campaign offering wrap-around supports for retrofitting.

Get off gas

- Ban fossil fuel boilers in new buildings in 2023. Ban the further expansion of the gas distribution network from 2023 through legislation. Ban the sale of new fossil gas boilers for any building by 2028. Phase out fossil fuel boilers in existing buildings, prioritising residential homes, by 2033. Ensure that everyone has improved access to energy efficiency measures and alternative zero-carbon heating options.
- Make the existing moratorium on commercial LNG permanent in light of the latest expert analysis on energy security.

Transform social housing

- Retrofit and install fossil-free heating in all social housing stock to B2, and install solar PV on all feasible social housing units, by 2030.

C. Electricity: Ramp up renewables, reduce demand and guarantee basic needs

A rooftop revolution

- Drive a solar PV rooftop revolution: Put solar panels on the roof of every school by 2025, and on the roofs of 1 million homes by 2030.

No more data centres

- Introduce a moratorium on new data centres connecting to the electricity grid until electricity system pressures and gas lock-in risks are transparently and comprehensively addressed.

A right to energy

- Explore the idea of a “Basic Energy Guarantee” as proposed by the New Economics Foundation in the UK and Age Action in Ireland. Every household would get a basic allowance of electricity and gas, at a low rate for everyone and free for older people and welfare recipients. Usage at above that level would be at the very high market rates or more. Aim to have this in place by October 2023.

D. Agriculture and land use: Reduce chemical fertiliser, ramp up peatland rewetting

Reduce chemical fertilisers

- The key to reducing air, water and climate pollution from agriculture is reducing the use of chemical nitrogen fertiliser, which grew by more than 20% after 2010. It’s fallen this year due to the skyrocketing price of the fossil fuels used to make it. The Government must ensure that chemical fertiliser use does not rise again in 2023 or 2024 and falls to 2010 levels no later than 2025, and continues to decline steadily to less than 200,000 tonnes by 2030.

Rewet peat soils

- Reward landowners for active maintenance of ecosystems, including rewetting of agricultural peatlands

E. Cultural transformation: Treat pollution like we treat smoking

Ban fossil fuel advertising

- Ban ads for fossil fuels, ads from companies or public bodies involved in fossil fuel production or distribution and ads about cars, boilers or flights that use fossil fuels.

A public information campaign

- Develop and launch a comprehensive long-term Government information campaign on climate and energy, as we have done on road safety and smoking over the past decades.

Promote sustainable diets

- Mandate the Food Safety Authority of Ireland to revise their "Healthy Eating Guidelines" to take into account the water, air and climate pollution impacts of different food types.

In the following sections we provide answers to the questions outlined in the Consultation document.

Section 1 Sectoral Emission Ceilings

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?

The recent approval of the SECs was a positive step forward for climate policy in order to ensure necessary action across all government departments and all parts of society. The Government must not delay in immediate delivery of substantive mitigation measures to reduce Ireland's polluting emissions in accordance with the Climate Act.

Key actions that must be taken to ensure that we live within the limits of the legally binding carbon budgets:

- There must be a laser focus on delivery of transformative action in each sector and community to ensure we live well within the limits set by the carbon budgets. Therefore each sector must know their own five-year carbon budget sectoral ceiling, otherwise such planning is not possible. It is important to note here that this focus must not only reside with the Department of Environment, Climate and Communications. While this Department takes the lead on several coordinating elements, implementation falls on several Departments and public bodies, as outlined in the Climate Action Plan. We support increasing supports and resources for climate action units in all such Departments and bodies.

- The iterative annual climate policy and action cycle must function effectively and transparently i.e. government produces a Climate Action Plan, the Plan is assessed by the EPA and their emissions projections identify the "gap to target", the Climate Delivery Board reports quarterly on implementation progress, the EPA's inventory reports track actual progress in reducing emissions, and the independent expert Climate Change Advisory Council reviews all this to provide analysis of performance and recommendations on how to close the emissions gap, the Oireachtas Committee hold hearings with all the relevant ministers and then the Government revises the Climate Action Plan and the cycle begins again. This work is crucial to ensure that we are on-track to meet the legally-binding 2030 target, to ensure transparency around climate action, and to help government design policy that is aligned with the carbon budgets. Friends of the Earth welcomes the opportunity to engage with the JOECA, DECC and D/Taoiseach to ensure this monitoring and accountability process is followed appropriately

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

The most pressing challenge is that the SECs are not fully in accordance with the Climate Law. The following two actions should be immediately prioritised:

- Urgent action should be taken to set maximum limits for total emissions in MtCO2eq for each five-year carbon budget period.

  The agreed targets do not constitute sectoral emission ceilings (SECs) as defined in the Climate Act as they do not set the maximum amount of GHGs permitted per sector during the carbon budget period i.e. the SECs do not divide out the national carbon budget in MtCO2e.

  The Climate Act (s. 6C) is clear that the sum of the SECs for each carbon budget period must add up to no more than the national emissions ceiling in the carbon budget itself, i.e. 295MtCO2e for 2021-2025 and 200MtCO2e for 2026-2030.[3] In other words, the national carbon budget for each 5-year budget period must be divided between the different sectors, and the sum of the SECs must not exceed the national carbon budget. The Government's decision provides a percentage reduction for each sector by 2030 and therefore does not meet the definition of 'sectoral emission ceilings' as detailed in the Climate Act. The SECs must set maximum limits for total emissions in MtCO2eq for each sector covering the carbon budget period.

  The production of clear SECs is also necessary for the Climate Change Advisory Council to fulfil its obligation to produce an Annual Review of progress in complying with each carbon budget and SEC. Delaying the publication of the SECs risks undermining their ability to assess compliance, as well as the broader governance framework that supports timely progress reviews and updates to the Climate Action Plan.

- The LULUCF sector should be allocated a sectoral emission ceiling with priority.

  The SECs do not cover all sectors as the LULUCF (Land Use, Land Use Change and Forestry) sector has not been allocated a sectoral ceiling. We note the statement that the decision has been deferred for 18 months. This would mean that the LULUCF ceiling will not be set until 3 full years into the first carbon budget period. This creates considerable uncertainty for the other sectors as the LULUCF ceiling may impact the size of the other sectoral ceilings.

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

Section 2 Carbon Pricing and Cross-Cutting Issues

We understand that this section broadly addresses support for climate action through budgetary and taxation measures. We are concerned that no reference is made to the major challenge posed by ongoing subsidisation of fossil fuels and other environmentally damaging activities. CSO analysis indicates that Ireland spent €2.2 billion subsidising fossil fuels in 2020.[4]

While Ireland has committed to phasing out fossil fuel subsidies under the 2021 Climate Action Plan (Action 265) in accordance with SDG target 12.c.1, environmentally polluting activities should be prohibited by legislation/regulation, rather than relying on market-based instruments, while ensuring that impacts on lower impact households are prevented, in particular those on the fuel allowance and at risk of fuel poverty. According to the 2021 Climate Action Plan, a roadmap on transitioning away from fossil fuel subsidies is due to be produced in Q1 2024. Such an approach in no way aligns with the severity of the climate crisis and the obligation on Ireland to reduce fossil fuel use as soon as possible. We recommend that Government prioritises the earlier development of this roadmap to reflect the urgency of rapid and far-reaching climate mitigation measures.

ESRI analysis on the economic and emissions impacts of removing certain fossil fuel subsidies related to energy production, taxation and allowances shows that removing seven of these subsidies would have a minor effect on real GDP and on household income but would produce sizable emissions savings. It is noted: "…Removal of fossil fuel subsidies would directly improve our emissions performance plus provide substantial fiscal headspace for the government to use for other climate and social policies. Furthermore, the research finds removal of fossil fuel subsidies, except fuel allowances of households, causes a substantial reduction in country's emissions without adversely altering the income distribution...".[5]

EPA research on fossil fuel lock-in risks highlights the dangers of stranded assets in the energy sector which may delay the necessary speed of decarbonisation. The authors conclude that 'From a policy perspective, it is important that the market model and payments for energy, capacity and flexibility are designed to expedite the transition to zero carbon and are not sunk costs in fossil fuel generation and infrastructure.'[6]

Building on Ireland's membership of the Beyond Oil and Gas Alliance, we call on the Government to support the Fossil Fuel Non-Proliferation Treaty, which has the support of 65

[4] CSO. Fossil Fuel Subsidies 2020. https://www.cso.ie/en/releasesandpublications/ep/p-ffes/fossilfuelsubsidies2020/

[5] ESRI The impacts of removing fossil fuel subsidies and increasing carbon tax in Ireland, December 13, 2019 by Kelly C De Bruin, Eoin Monaghan, Aykut Mert Yakut December 13, 2019 Research Series Number 98. https://www.esri.ie/publications/the-impacts-of-removing-fossil-fuel-subsidies-andincreasing-carbon-tax-in-ireland

[6] Celine McInerney, Conor Hickey, Paul Deane, Joseph Curtin and Brian Ó Gallachóir on behalf of the EPA, 'Fossil Fuel Lock-in in Ireland: How Much Value Is at Risk?' (2015-CCRP-MS.27) Research Report No 302, 2019.

cities and subnational governments and over 3000 scientists, academics and researchers, and is calling for a managed phase-out of fossil fuel production globally.[7]

Ireland's membership of the recently-formed Beyond Oil and Gas Alliance[8] (BOGA) is a step in the right direction in this area, since BOGA members have committed to a managed phase-out of their existing gas and oil production and to ending new concessions. It is important that Ireland's existing policy on offshore exploration licensing aligns with BOGA commitments and does not allow for progression of existing licences in order to prevent fossil fuel lock-in. We also note that BOGA does not include coal, nor does it include imports of any kind of fossil fuel. A comprehensive limit on fossil fuel use will clearly also need to include coal and imports.

Finally, the State should introduce a one-off tax on energy companies that have seen high and increasing profits as a result of the energy price crisis. The tax revenue should be recycled to help consumers offset higher energy bills. We support current EU plans to impose a windfall tax on excess profits from energy companies.

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?

We are concerned that the phrasing of this question could lead to a misconception that the planning system is a mere blockage to delivery of climate commitments. Certain revisions may be necessary and timelines reconsidered, as well as new measures such as additional resources for An Bord Pleanála. However, it is essential that Ireland ensures compliance with obligations under international and EU law in relation to access to information, public participation in decision-making and access to justice in environmental issues. Challenges with the operation of the planning system should not be conflated with, and should not provide for misguided acceptance of, poor/ill conceived or weak planning applications. Applications which ignore environmental or climate obligations cannot be accepted in any scenario.

We recommend that the Government prioritise meaningful community involvement in renewable energy planning and development. This should include government-led information and engagement campaigns targeting host communities along our coasts at strategic planning stage i.e. prior to the development of individual projects.

We also note analysis by the Sustainable Water Network which found that lack of adequate spatial planning or ecosystem-based approach means the mistakes of poor planning on land risk being repeated at sea. They highlight that without an ecosystem-based approach to consenting and regulating activities and developments at sea, it is unlikely the NMPF will

[7] As the Treaty website states, 'The world's oil and gas fields and coal mines contain enough carbon to push the world beyond the Paris Agreement's temperature limits. Phasing-out fossil fuel production must start by regulating fossil fuel supply, limiting extraction, removing subsidies for production, dismantling unnecessary infrastructure, defending the rights of Indigenous Peoples and impacted communities, and shifting support to safer alternatives, in order to align fossil fuel supply with the goals of the Paris Agreement.' See: https://fossilfueltreaty.org/home

[8] See: https://beyondoilandgasalliance.com

contribute positively to the achievement of Good Environmental Status in Irish waters. The NMPF needs to be reviewed and amended in light of this assessment.[9]

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?

While we do not consider carbon pricing in isolation to be a sufficient measure to drive decarbonisation, we support the transparent commitment to carbon tax increases in line with the cross-party support for this measure from most parties as part of the 2019 report of the Joint Oireachtas Committee on Climate Action.

Carbon tax revenues must be fully hypothecated through legislation if the tax is to ensure as much public support as possible, and returned to citizens. The current practice of hypothecating revenues towards climate action should be reviewed to ensure that the revenues are being properly distributed in a way that targets the groups and households most vulnerable to rising energy and fuel costs. These revenues should be used to support specific policy measures to assist those who may not be in a position to immediately transition from fossil fuels. This should continue to prioritise energy efficiency measures for vulnerable households and could include the potential use of social protection mechanisms, such as tax credits and welfare payments.

A broader issue concerning carbon taxation is that, while carefully-managed carbon pricing will certainly play a useful role in the energy transition, the Government should not rely on price-based policy instruments to do the heavy lifting of emissions reduction. The group of people who are least affected by price - the wealthiest 10% - are also responsible for a vastly disproportionate share of emissions[10]. There is no guarantee that a high carbon price will alter their behaviour sufficiently to enable us to meet overall emissions reduction targets. This is an example of 'rebound' whereby emissions that are saved in one sector are generated elsewhere, since there is no absolute limit to the supply or use of fossil fuels.

3. Further to recent reforms to Ireland's green budgeting and public procurement policies, are there any additional measures that could be taken to integrate climate considerations into these policy frameworks?

The Government should actively support the integration of climate and other sustainability objectives by linking the Sustainable Development Goal and sub-targets to these policy measures, including as part of a new SDG implementation plan. Further recommendations on this point are set out in Coalition 2030's response to the 2021 NRRP here.

[9] Walsh, C. (2022) 'An Evaluation of Ireland's Marine Spatial Plan – The National Marine Planning Framework'. Sustainable Water Network (SWAN). May 2022. Available at: https://swanireland.ie/wp-content/uploads/2022/05/An-Evaluation-of-Irelands-Marine-Spatial-Plan-The-National-Marine-Planning-Framework.pdf

[10] Oxfam. Carbon emissions of richest 1 percent more than double the emissions of the poorest half of humanity. Available at: https://www.oxfam.org/en/press-releases/carbon-emissions-richest-1-percent-more-double-emissions-poorest-half-humanity

4. Are there any significant cross-cutting gaps not previously discussed in Climate Action Plan 21 that need to be addressed?
5. Are there any other cross-cutting issues that should be considered in the development of the 2023 Climate Action Plan?

We reiterate our concern that none of the questions posed address the challenges of fossil fuel infrastructure and subsidies despite the centrality of ending fossil fuel reliance to climate action.

We note that the Government's consultation on energy security has just been launched. Friends of the Earth will make a submission to this consultation. At this stage we would like to note that we support the findings of the expert technical consultants, CEPA, that a commercially-operated or state-owned LNG import terminal on land, such as Shannon LNG, should not be shortlisted as it would "Likely result in the importation of fracked gas to Ireland…embedded emissions in LNG can exceed that of natural gas….no guarantee that stored gas volumes would be sufficient to cover a security of supply shock…". (A commercially-operated floating LNG terminal is also ruled out for the same reasons.) We also support the exclusion of additional gas reserves from existing exploration licences, such as from Providence or Corrib, from the short-list as "Additional domestic production of natural gas could lock Ireland into a high-gas energy market…Unknown volume of any potential additional natural gas discoveries." We now call on the Government to make the existing moratorium on commercial LNG permanent in light of this analysis. It is also essential that the Government ensures that ABP, as part of its ongoing consideration of the proposed development at Shannon, respects the current Policy Statement on the Importation of Fracked Gas and ensures that ABP reviews and takes into account the latest CEPA analysis.

Friends of the Earth has previously written to the Minister to express our concerns with the Energy Charter Treaty, as well as the current EU 'modernisation' process. We remain of the view that the conclusion of this process does not go far enough. Little if any progress has been made to align the ECT with international climate goals under the Paris Agreement and the European Green Deal. Investments on fossil fuels are set to receive continued protection under the ECT throughout the critical years of the energy transition. Aligning the ECT with the Paris Agreement requires the immediate end of investment protection for fossil fuels in all ECT contracting parties. The investor-state dispute settlement (ISDS) mechanism (Article 26, ECT), declared 'dead' by Trade Commissioner Malmstrom in 2018, has not been included in the ECT modernisation agenda and remains untouched. This is a major problem as it clashes with promises made by EU governments not to sign agreements with old-style ISDS provisions anymore. It should also be noted that withdrawing and neutralising the sunset clause would significantly reduce the risk of expensive investment arbitration cases, in particular in relation to policies needed to implement a just energy transition. Given the need for Ireland to rapidly phase out fossil fuel infrastructure in the coming years, we note the potential for obligations to constrain and undermine Ireland's decarbonisation measures. We call for an immediate assessment by Government on how the state can progress a near-term withdrawal from the Treaty. We also support the decision of Poland to exit the Treaty.

Section 3 Electricity

The current energy price and security crisis, driven by volatility in the gas market raises significant questions regarding previous Government decisions to expand gas usage, particularly at domestic level, while downplaying or dismissing energy efficiency measures and solar generation. Had successive governments invested and rolled out energy efficiency, solar (combined with greater wind, storage, and grid development) citizens would not be as exposed to the current gas crisis. Fossil fuel pricing is volatile and is likely to remain so. Prices are also likely to remain high. Renewable generated electricity has been competitive with fossil fuels for some time, even before the recent price increases.The discourse of "cheap" fossil fuels and the "expense" associated with the energy transition has not been accurate for many years. A rollout of energy efficiency, renewables and associated infrastructure that is fair and at pace can insulate us from the economic cost of volatile swings in the cost of fossil fuels, not to mention shielding ecosystems and human health from damaging pollution. It is essential that the Government communicates these benefits to all parts of society through comprehensive and resourced information campaigns.

We support the cross-Government efforts to expedite necessary policy actions to ensure that the 80% renewable electricity target by 2030 is achieved. It is important that 80% is not considered a ceiling; as renewable penetration and grid development progresses, necessary analysis should be carried out (by DECC, CRU and EirGrid) to provide for increases in this target, e.g. 90% by 2030 and 100% by 2035. The rollout of large-scale offshore wind and associated infrastructure must be seen as a shared societal project, rather than a developer-led project. The absence of public engagement, including public participation and public ownership, risks hindering necessary rollout of infrastructure for both the state and developers.

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

Ireland has a world renowned renewable energy resource with huge potential for achieving in excess of 100% of our electricity demand from renewables such that we could be exporting electricity to other European countries rather than importing oil and gas. In Ireland, wind generation is often constrained as the grid system cannot handle it, and this gap is then replaced by fossil-fuel electricity production elsewhere on the electricity grid resulting in unnecessary and additional emissions. The primary goal should be to make the power system the backbone of the entire energy system. Studies have shown that this is both possible and cost-optimal without reliance on carbon capture and storage.[11]

The pathway taken to decarbonise our electricity supply between now and 2030 will determine the total cumulative CO2 emitted from the power sector. The faster we act, the more emissions that are saved in the transition. Acceleration of grid development, onshore and offshore renewable build-out, and phaseout of coal for power production are crucial. A

[11] Bogdanov, D., Ram, M., Aghahosseini, A., Gulagi, A., Oyewo, A.S., Child, M., Caldera, U., Sadovskaia, K., Farfan, J., Barbosa, L.D.S.N.S. and Fasihi, M., 2021. Low-cost renewable electricity as the key driver of the global energy transition towards sustainability. Energy, 227, p.120467.

recent Baringa and TNEI report shows that *rapid delivery*[12] of renewables can reduce cumulative power sector emissions by 4 million tonnes of CO2 (or 2 years worth of power sector emissions by 2030) as compared to *delayed delivery* of the same capacity. Both pathways would achieve the same installed capacity of renewables; however, focusing efforts on faster deployment means that much less CO2 is emitted during the transition.

The following actions must be implemented at pace:

- An expeditious rollout of large scale offshore and onshore wind energy, solar energy and energy storage projects beyond the baseline of Eirgrid's *Shaping our Electricity Future Roadmap* while ensuring that appropriate environmental assessments have been undertaken and host communities are meaningfully involved.

- Drive public participation in renewable energy with a solar PV rooftop revolution. Government should prioritise the rollout of solar PV on the rooftop of every school by 2025, and on the rooftop of 1 million homes by 2030. Recent MaREI research indicates that more than 1 million homes in Ireland have roof space and orientation suitable for 10 solar panels (equivalent to 3.4kW).[13] This action would produce 25% of all residential electricity demand (2.2TWh),[14] and would contribute to a culture change around the energy transition where citizens are at the heart of climate action.

- The rapid build-out of renewables must be accompanied by timely investment in enabling solutions with a focus on the development of the transmission network, the delivery of constraint management solutions such as battery storage, and the rollout of technologies that can provide zero-carbon system services.[15]

- Substantial and speedy interventions are now required to phase out fossil fuels. The current need for additional gas-fired generation for system security reasons should not be allowed to lock-in emissions. These means regulations are necessary to ensure they are employed only when absolutely necessary and are not allowed to undermine investment in zero-carbon solutions. In short, Government must plan for reductions in gas demand and for gas plant to be used as measures of last resort. The recent Baringa and TNEI report on which sets out a series of pathways to 2030 for the Irish power sector shows that continuing to use coal and peat between now

[12] Rapid delivery requires the following: (a) each auction (extending to RESS 4 and ORESS 2) proceed according to the schedule set by DECC, (b) volume maximums set out in the schedule are assumed to be procured in the early auctions, (c)the procured capacity is delivered as quickly as possible, and (d) by the end of 2030 the following capacities have been delivered: 7GW onshore wind, 5GW offshore wind, and 3GW solar PV. See here: https://windenergyireland.com/images/files/bridging-the-gap-a4-report-final.pdf

[13] Siddharth, J., Deane, P. (2022) Quantifying the potential for rooftop solar photovoltaic in Ireland. Available at: https://www.marei.ie/wp-content/uploads/2022/07/Quantifying-the-Potential-for-Rooftop-Solar-Photovoltaic-in-Ireland.pdf

[14] Siddharth, J., Deane, P. (2022) Quantifying the potential for rooftop solar photovoltaic in Ireland. Available at: https://www.marei.ie/wp-content/uploads/2022/07/Quantifying-the-Potential-for-Rooftop-Solar-Photovoltaic-in-Ireland.pdf

[15] Bridging the Gap: Towards a zero-carbon power grid. Available at: https://windenergyireland.com/images/files/bridging-the-gap-a4-report-final.pdf

and 2025 locks in considerable emissions and puts substantial pressure on the carbon budgets even with rapid and large scale renewable development.[16]

- We recommend that the Government explore and implement measures to ensure that citizens are shielded from the extraordinary electricity price increases, particularly increased supports for insulation, solar PV and other energy efficiency measures. The fact that high profits are being made by energy companies at present[17], while consumers are seeing no benefit, is not helpful for public acceptance and buy-in of the energy transition.

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?

The following actions are critical for wind and solar deployment at a level that is carbon budget compliant in the period to 2030:

- Ensure that planning barriers impeding the rollout of solar PV on the rooftop of every school by 2025, and on the rooftop of 1 million homes by 2030 are urgently removed.
- Ensure that market and regulatory barriers across planning, grid access, route to market, and operational systems are addressed to support rapid renewable development.
- Government should prioritise the development of a deployment and innovation skills roadmap to expedite the development of skills programmes to resource the build-out of renewables and energy efficiency measures.
- The rapid build-out of renewables must be accompanied by timely investment in enabling solutions with a focus on the development of the transmission network, the delivery of constraint management solutions such as battery storage, and the rollout of technologies that can provide zero-carbon system services. The grid system should be able to run on 100% renewables by 2030 when there is enough generation to do so. This would mean there would be no need for minimum generation requirements from fossil gas plants, and instead battery storage, synchronous condensers and demand response could be used to ensure that electricity supply is meeting demand.
- It is recommended that the Government prioritises the development of strategies around: (a) grid development, (b) port development, and (c) energy storage. Our electricity grid was designed with fossil fuels in mind. The national grid system must be expanded and strengthened to provide clean energy to every home and business in Ireland. We need to urgently build out new grid infrastructure such as the North-South Interconnector and invest in the next phase of Eirgrid's DS3 programme to ensure that the system can run with 100% renewables.

[16] Bridging the Gap: Towards a zero-carbon power grid. Available at: https://windenergyireland.com/images/files/bridging-the-gap-a4-report-final.pdf
[17] See: https://www.irishtimes.com/ireland/2022/08/05/revenue-from-big-power-companies-wind-farms-multiply-as-electricity-prices-soar/

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

It is important that the Government examines the wide-ranging uncertainties and risks regarding biomethane development and injection in Ireland and addresses the likelihood that sufficient volumes will not be generated to sufficiently decarbonise the gas grid. A robust, independent, science-based analysis of biomethane development and usage is needed, i.e. not merely GNI projections. Biomethane should not be used through blending to support the use of fossil gas any longer than absolutely necessary. We consider its use should be limited to hard-to-abate sectors and dedicated local distribution grids for energy communities or district heating. UCC analysis on behalf of the EPA notes that '*Although biogas is viewed as positive from a renewable energy perspective, it may have the unintended consequence of increasing the gas RAB and ultimately increasing the long-term stranded asset risk and barriers to change*.'[18]

The Government should be wary of overoptimistic scenarios and support schemes, in particular the risk that biomethane production may become the driver of unsustainable farming practices. The SEAI have analysed the impact of the rollout of anaerobic digestors and increasing levels of biomethane. Their 2017 analysis[19] notes a wide range of challenges that would need to be overcome in order to allow for biogas deployment. The SEAI note the notable moral hazard risk (see also section on hydrogen below) that greater gas volumes may be inadvertently locked into the system in the event that biomethane production is insufficient.[20]

McMullin et al and the Irish Academy of Engineers have separately raised several risks and obstacles regarding proposed biomethane use to decarbonise a substantial portion of the gas system, including regarding methane leakage and nitrogen fertiliser use. McMullin et al note that the overall mitigation benefit of bioenergy is highly variable. In relation to anaerobic digestion operations, they note the risk of methane leakage means there is a requirement for potentially costly regulation and monitoring of production sites. They also raise adverse environmental effects, as well as impacts on farmland.[21] Therefore, it is particularly important that clear sustainability standards are defined for biogas production.

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[18] EPA Research Report No 302, Fossil Fuel Lock-in in Ireland: How Much Value Is at Risk? (2015-CCRP-MS.27) Prepared by University College Cork (Authors: Celine McInerney, Conor Hickey, Paul Deane, Joseph Curtin and Brian Ó Gallachóir)

[19] SEAI. Assessment of Cost and Benefits of Biogas and Biomethane in Ireland, 2017. Available at: https://www.seai.ie/publications/Assessment-of-Cost-and-Benefits-of-Biogas-and-Biomethane-in-Ireland.pdf

[20] This SEAI analysis also underlines that "[t]he scenarios implicitly assume that action is taken in the short term to address the challenges …. of achieving large scale deployment of biogas and biomethane plants." The challenges assumed to be overcome in order to allow for this deployment include that: • Additional land is freed from grazing and available for additional silage production; • Farmers use the released land for the production of grass silage for bioenergy; • The ability to collect and secure food waste separately, as well as the ongoing availability of food waste feedstocks; • Costs associated with grass silage, feedstock, transportation; • Difficulties in upgrading biomethane in order to meet sustainability, safety and regulatory standards; • Other substantial challenges associated with investment, planning, certification, support mechanisms and available expertise.

[21] McMullin et al, 2018. Is Natural Gas "Essential for Ireland's Future Energy Security"? Independent academic review commissioned on behalf of Stop Climate Chaos Ireland. tinyurl.com/sjutvfm McMullin et al also point to the need to account for additional use of nitrogen fertiliser at AD sites which would result in increases in Nitrogen Oxide emissions. In the event that on-farm biogas production through AD is strongly incentivised, it may have the perverse effect of

The Irish Academy of Engineers refer to significant challenges, including planning, permitting, timescales, public acceptance, scale and costs of infrastructure, gas quality control etc. While supportive of biomethane development, they conclude that biomethane will account for only a small portion of Ireland's gas supply by 2040.[22] In light of these challenges and risks, we would question major incentivisation of the biomethane development and injection.

In 2020 Earthjustice and Sierra Club produced an in-depth study which rejects that fossil gas alternatives, such as biogas, are capable of decarbonising the building sector in the USA. The report also outlines the significant negative health impacts associated with burning fossil gas indoors and provides information on gas industry incumbents' activities to prevent electrification efforts through campaigns, lobbying and other underhand methods. [23]

A recent report from E3G examined the role of fossil gas in the EU's decarbonised future. The report notes that biomethane may be best targeted at harder-to-abate sectors, such as heavy industry. However, the authors of the report point to significant uncertainties regarding the technical and economic potential of renewable and decarbonised gas, as well as the lifecycle emissions of these options and their infrastructure implications.[24]

4. What role could carbon, capture and storage have in decarbonising our power Sector?

Relying on carbon capture and storage (CCS) runs the risk of overshadowing solutions that focus on renewable energy, energy efficiency, and reducing energy demand. While CCS does offer some opportunities for cutting emissions in some sectors - for example, 60% of cement emissions are due to the process of making the cement which means that can't be avoided even if fossil fuels are not used - deployment outside of such industries is too risky. CCS has been struggling to get off the ground, with more than 80% of projects ending in failure due to complicated infrastructure and lack of policy support.[25] Further, many models of a low carbon future still use higher discount rates of 4-5% (i.e. discount rates determine how a Euro's worth of action today compares to a Euro's worth of action in the future). This means that within those modelled scenarios it is cheaper to spend the Euro (to install solar PV for example) in the future, which creates an incentive to delay action to some point in the future. Recent research shows that when lower discount rates of 1% are used - to reflect the

locking in intensification of agricultural land and/or expanded ruminant production in opposition to mitigation commitments in the agriculture sector. In other words, the risk is that biogas demand and the operation of such facilities would drive continuous high volumes of these by-products at farm level. Detailed analysis is required as to what percentage of farmland would be required to produce high volumes of grass for AD plants.

[22] See: http://iae.ie/wp-content/uploads/2018/08/IAE_Natural_Gas_Energy_Security.pdf

[23] Earthjustice and Sierra Club , Rhetoric vs. Reality: The Myth of "Renewable Natural Gas" for Building Decarbonization, July 2020. Available at: https://earthjustice.org/sites/default/files/feature/2020/report-decarb/Report_Building-Decarbonization-2020.pdf

[24] E3G Renewable and Decarbonised Gas Options for a Zero-Emissions Society, Lisa Fischer June 2018

[25] Abdulla et al. (2021) Explaining successful and failed investment in US carbon capture and storage using empirical and expert assessments. Environmental Research Letters, 16(1). Available at: https://iopscience.iop.org/article/10.1088/1748-9326/abd19e/meta

importance of the wellbeing of future generations - that the value of CCS crashes across all sectors.[26]

Several risks and challenges associated with CCS development and reliance have been raised.

- Ervia acknowledge a "legacy risk" that CO2 may leak from such facilities in the future. They also note that in the case of transportation to Norway, it is currently not clear to which country the carbon credit would be applied (Ireland or Norway).[27]
- McMullin et al (2019) note that the expectation of successful sequestration through CCS raises a considerable moral hazard risk to the effect that insufficient decarbonisation would be deemed acceptable on the basis that ongoing shortfalls may be compensated at some future point by CO2 removals through CCS (or other technologies. [28] McMullin (2018) also points out that potentially limited capacity for geological carbon storage within Ireland.[29]
- MaREI acknowledge that while BECCS may be "critical for negative emissions, [the technology] is comparatively more cost intensive and should only be deployed when sufficient biomass supply can be secured."[30]
- The EPA note international studies which show that negative emissions technologies including bioenergy with CCS may only extend the 2050 carbon budget by modest amounts and that they are subject to significant uncertainty.[31]
- E3G have highlighted the production of natural gas is characterised by significant methane emissions along the supply chain and as a result, CCS alone is unlikely to bring emissions down to zero.[32]

5. What other opportunities exist to support the decarbonisation of the electricity sector?

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[26] Grant et al. (2021) Cost reductions in renewables can substantially erode the value of carbon capture and storage in mitigation pathways. One Earth, 4(11). Available at: https://www.sciencedirect.com/science/article/abs/pii/S2590332221006102

[27] See: https://www.oireachtas.ie/en/debates/debate/joint_committee_on_communications_climate_action_and_environment/2019-10-15/3/

[28] McMullin B, Price P, Jones MB, McGeever AH (2019) Assessing negative carbon dioxide emissions from the perspective of a national "fair share" of the remaining global carbon budget. Mitigation and Adaptation Strategies for Global Change. Available at: https://tinyurl.com/y6tkw383

[29] McMullin et al, 2018. Is Natural Gas "Essential for Ireland's Future Energy Security"? Independent academic review commissioned on behalf of Stop Climate Ireland. Available at: https://tinyurl.com/sjutvfm

[30] Yue, X., Rogan, F., Glynn, J. & Ó Gallachóir, B. 2018 From 2 °C to 1.5 °C: How Ambitious Can Ireland Be? in Limiting Global Warming to Well Below 2 °C: Energy System Modelling and Policy Development 191–205 (Springer, Cham, 2018). doi:10.1007/978-3-319-74424-7_12

[31] See Caldecott, B., Lomax, G. and Workman, M., 2015. Stranded Carbon Assets and Negative Emissions Technologies. Smith School of Enterprise and the Environment, University of Oxford, Oxford as noted in https://www.epa.ie/researchandeducation/research/researchpublications/researchreports/Research_Report_302.pdf

[32] E3G Renewable and Decarbonised Gas Options for a Zero-Emissions Society, Lisa Fischer June 2018

We note that there is not a specific question in this consultation concerning green hydrogen development. Friends of the Earth recently made a detailed submission in response to the Department's consultation on this issue. Below we have highlighted some of our main recommendations from this submission and would welcome the opportunity to engage further with the Department at a later stage on the development of a new hydrogen strategy.

Recommendations:

- Ensure that green hydrogen is not used as a means of propping up or furthering expansion of gas network assets and supporting continued gas usage.
- Guarantee a complete separation between the ownership, control, and operation of fossil gas and hydrogen assets.
- Ensure that green hydrogen is prioritised in those sectors where no alternative exists.
- Prioritise the development of offshore wind energy to meet green hydrogen electricity consumption.
- Guarantee that regulatory incentives are only granted to green hydrogen produced from 100% additional renewable electricity.
- Exclude hydrogen blending to enable a targeted use of hydrogen.
- Ensure that innovation funding is not incorrectly used or intended to extend the life of assets which would otherwise be phased out as part of eventual system decarbonisation.
- Green hydrogen development should not result in the deprioritisation of measures with lower costs, higher efficiency and greater mitigation potential.
- Hydrogen production should not eat into existing renewable electricity generation. Hydrogen deployment which is not based on additional renewable generation may significantly increase electricity demand and energy costs.

6. What measures might be taken to improve the resilience of the electricity system to the impacts of climate change?

7. What role do you see for electricity storage and demand-side response in providing flexibility to a system comprised of high renewable penetration and in supporting the decarbonisation of the electricity sector?

We have major concerns with state body projections of electricity demand showing significant increases often without regard to climate obligations. We also note KPMG have highlighted that electricity demand may double by 2030[33] under a high demand scenario[34]. It is important to examine assumptions related to such projections and to not treat such projections as necessary outcomes.

[33] KPMG (2022) Renewable energy key to Irish climate action. Available at: https://home.kpmg/ie/en/home/insights/2022/04/renewable-energy-key-to-irish-climate-action.html#:~:text=In%20a%20high%20demand%20scenario,23%25%20of%20total%20electricity%20demand

[34] According to KPMG, drivers for the high demand scenario include:
Data centres are forecast to continue to grow by up to 9 TWh in 2020, representing 23% of total electricity demand. Transport electricity demand is forecast to grow by 23% p.a. due to the fast uptake of EV charging. Electrical heating industry will increase by 2.5 times by 2030 (from 2017 levels). Building energy efficiency improvement from an extensive retrofit programme will moderate the growth in electricity demand from new heat pumps in buildings

There should be explicit measures aimed at avoiding emissions by reducing consumption at household and industry level. Government should prioritise an urgent information campaign on measures to reduce demand in homes and businesses before Winter 2022. This should include zero interest loans for purchasing energy efficient appliances and also reducing VAT on such devices. This should also include increased advertisement of the Codema "Home Energy Saving Kit" which is freely available in libraries across the country.

We recommend that the Government makes demand reduction and storage a core component of Irish policy in order to prevent further reliance on gas-fired generation. This is particularly relevant in the context of data centre developments (see subsequent section). This can be achieved by introducing new incentives and obligations to ensure storage is in place for any new large energy users and expanding supports for demand-side management.

Energy storage is also a key component of decarbonising our energy system and delivering reduced CO2 emissions, greater energy security, and flexibility to manage the grid with high renewable capacity. A comprehensive regulatory and commercial framework is needed to support the development of energy storage at scale, and the Government should prioritise the development of an energy storage strategy for Ireland. A recent report by Baringa shows that at the very least Ireland will need 1700MW of energy storage to meet the 2030 power sector target.[35] Current installed capacity is 500MW (as of May 2022), and efforts need to be focused on securing sufficient storage capacity to support our renewable ambitions.

In contrast to energy efficiency which reduces overall energy use, demand response asks electricity consumers to use less power during peak times or times of congestion or grid stress, with consumers paid for providing this service. Ireland's demand side strategy was published in 2011 and is in urgent need of updating to ensure that we meet the commitment that 20-30% of system demand is flexible by 2030.[36] There is a pressing need to prioritise operational capacity and incentivise demand response measures such as those that can be taken by large electricity users to contribute to decarbonising the electricity system, and to help relieve network congestion. It is particularly important that this measure is developed and prioritised in order to prevent a dependence on new gas-fired generation which runs the risk of gas lock-in. We note the recommendations of the Demand Response Association of Ireland submission[37] to incentivise demand participation via effective network tariff design; introduce a form of carbon credit for Large Energy Users, homes and communities that provide demand response and flexibility; and prioritise grid access for committed demand response participants to reward the provision of energy system services.

8. What financial incentives are needed to increase renewable generation capacity?

[35] Baringa. 70 by 30: A 70% renewable vision for Ireland in 2030. Available at: https://windenergyireland.com/images/Article_files/Final_Baringa_70by30_Report_web.pdf
[36] Demand Response Association of Ireland submission to the Joint Oireachtas Committee on Environment and Climate Action. March 2022. Available at: https://files.basekit.com/c9/c2/c9c2b0e5-0793-49e5-976b-ee6d49a923ae.pdf
[37] Demand Response Association of Ireland. See: http://files.basekit.com/c9/c2/c9c2b0e5-0793-49e5-976b-ee6d49a923ae.pdf

9. To incentivise commercial scale production.

10. To incentivise microgeneration.

We welcome the recent announcement that the forthcoming regulation on planning permission exemptions for rooftop solar panels will include a new exemption for education, community and religious buildings. This change to the planning regulations should be approved by the Minister for Housing without delay. [38] The current planning regulations penalise schools and community buildings who wish to take part in the energy transition. Given the longstanding requirement to require planning permission on all educational and community buildings, these groups have generally not invested in solar panels given the considerable time, effort and money associated with obtaining planning permission. Friends of the Earth is aware that the ongoing requirement to attain planning permission is already putting schools in a difficult position, increasing costs (by c.€5k to €7k) and extending the process by months. Immediate approval of updated regulations is necessary to bring these failings to an end.

While generally supportive of the upcoming revision to planning regulations, it is important to note that this update has been knowingly delayed for at least 3 years. The disregard shown by the Minister for Planning for Government timelines and Climate Action Plan commitments is entirely unacceptable. The statements by Minister for Housing and Minister for Planning that assessments were ongoing and that impacts related to glint and glare have had to be considered, and the repetition of such statements over years without any indication of progress, undermines both the Government's and the Department's credibility and reputation. Under the Climate Action and Low Carbon Development (Amendment) Act 2021 Ministers are obliged to comply with carbon budgets and sectoral emissions ceilings set by Government [6A (10)(b) and 6C (9)]. Actions which prevent necessary mitigation measures and result in emissions increases are manifestly not in the spirit of Ireland's climate objectives. Where Ministers or the Department or state bodies have concerns with updates to planning regulations for solar (or similar developments), they should have been (and should be) invited to meet with all relevant stakeholders to discuss these in a transparent fashion.

Climate action and the need to decarbonise the energy system is an opportunity to democratise the energy system, and to give communities and householders the chance to generate, own and benefit from their own energy. In doing so, special attention needs to be given to support vulnerable and marginalised households and communities to participate in the energy transition. New financing models and direct grants should be prioritised to support those in energy poverty to participate.

Government should build on these recent developments and prioritise public participation in renewable energy with a solar PV rooftop revolution by rolling out solar PV on the rooftop of every school by 2025, and on the rooftop of 1 million homes by 2030. Recent MaREI research indicates that more than 1 million homes in Ireland have roof space and orientation

[38] Press Release. Planning permission exemptions for rooftop solar panels on homes and other buildings proposed. Available at: gov.ie - Planning permission exemptions for rooftop solar panels on homes and other buildings proposed (www.gov.ie)

suitable for 10 solar panels (equivalent to 3.4kW).[39] This action would produce 25% of all residential electricity demand (2.2TWh),[40] and would contribute to a culture change around the energy transition where citizens are at the heart of climate action.

The new microgeneration scheme provides that domestic customers with solar projects between 6-50kW can now receive payments for excess energy generated and exported to the grid under the Clean Export Guarantee tariff. While the scheme is a positive step forward in mobilising citizen engagement in the energy transition, the launch was significantly behind schedule and was delivered later than planned. Certain suppliers have still not rolled out payment for surplus electricity despite commitments that payments would be in place by summer 2022 at the latest. We call on the Department and the CRU to ensure electricity suppliers provide payment for excess electricity to customers with micro generation in accordance with CRU regulations and the Microgeneration Scheme.

Grants for microgeneration projects will be gradually reduced and phased out over the next 5 years. The suitability of this proposed phase out requires further consideration in light of rising energy costs and significant commitments at EU level under the RePowerEU plan to further increase solar PV installation.[41]

We recommend that ambitious targets are set for 2025 and 2030 to encourage widespread microgeneration uptake with a focus on community, farm, business and public buildings in the first instance, and facilitating collective ownership of installations where possible. We also recommend that supports for microgeneration, retrofitting and community energy be a core element of expansion of the electricity transmission and distribution network.

It is recommended that the government develop a community energy strategy with interested stakeholders to ensure that the energy transition is a shared societal project, and to support the ramping up of development and ambition far beyond the 500MW of community energy by 2030 as committed to in the Climate Action Plan 2021.

More financial and technical support for community energy is also needed to build support for the energy transition and to contribute to a Just Transition. In RESS 2, just 10 communities are being supported to produce their own power.[42] Urgent action is needed to connect local development to the energy transition. In other countries, community and locally owned power is a fundamental part of the energy transition. In Scotland, over 850MW of community and locally owned renewable energy capacity has been rolled out over ~25k individual projects.[43] To date Ireland's potential has been held back by regulatory issues and

[39] Siddharth, J., Deane, P. (2022) Quantifying the potential for rooftop solar photovoltaic in Ireland. Available at: https://www.marei.ie/wp-content/uploads/2022/07/Quantifying-the-Potential-for-Rooftop-Solar-Photovoltaic-in-Ireland.pdf

[40] Siddharth, J., Deane, P. (2022) Quantifying the potential for rooftop solar photovoltaic in Ireland. Available at: https://www.marei.ie/wp-content/uploads/2022/07/Quantifying-the-Potential-for-Rooftop-Solar-Photovoltaic-in-Ireland.pdf

[41] RePowerEU. Available at: https://ec.europa.eu/commission/presscorner/detail/en/IP_22_3131

[42] Renewable energy support scheme 2: RESS 2 final auction results. June 2022. Available at: https://www.eirgridgroup.com/site-files/library/EirGrid/RESS-2-Final-Auction-Results-(R2FAR).pdf

[43] Community and Locally Owned Energy. Available at: https://energysavingtrust.org.uk/wp-content/uploads/2021/03/Community-and-locally-owned-renewable-energy-in-Scotland-2020-report.pdf

insufficient supports and incentives. The reserved capacity available under the renewables support scheme should be increased for community energy projects. Access to the grid is also a considerable challenge and the approval/consenting process needs to be sped up to support development.

11. What are the regulatory challenges for reaching the renewable energy share targets?

Section 4 Enterprise

1. What measures can be taken to accelerate the uptake of carbon-neutral low temperature heating in manufacturing?
2. What measures can be taken to decarbonise high temperature heating in industry?
3. What measures can be introduced to reduce to F-Gases in the Enterprise sector?
4. 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?

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

[see responses on CCS above]

6. What other opportunities exist to drive the decarbonisation of the enterprise sector?

It is positive that the Consultation recognises the importance of action in the enterprise sector, the impact of emissions from the sector and notes the research conducted recently by DECC on how to meet the sectoral targets for the enterprise sector. It is essential that the Department of Enterprise's forthcoming White Paper supports delivery of Ireland's climate commitments**.** Under Climate (Amendment) Act 2021 Ministers are obliged to comply with carbon budgets and sectoral emissions ceilings set by Government [6A (10)(b) and 6C (9)]. Public bodies are also obliged to perform functions in a manner consistent with the climate action plan and the national climate objective.

Data Centre Demand

We remain concerned by the lack of attention paid to data centre demand, including the absence of any reference to this issue in the consultation paper. Data centre development results in large amounts of inflexible load to an already insecure system. This increase in electricity undermines the ability of thermal power plant capacity overall peak demand. In essence, these developments negatively impact peak demand and require further gas-fired generation resulting in higher emissions across the system.

Notwithstanding new regulatory requirements, the potential for increasing numbers of data centre connections to result in significant increases in gas plant and emissions has not been sufficiently assessed or addressed by Government. Previous UCC MaREI analysis has indicated that projected data centre development will directly undermine necessary climate

action, potentially resulting in a 40% emissions reduction instead of the at least 60% reduction required if Ireland is to meet its overall 51% commitment.

We are of the view that a moratorium remains necessary and the Climate Action Plan must go beyond what is set out in the Department of Enterprises's new Policy Statement on data centres in order to ensure renewables, storage and demand side management are prioritised ahead of development and use of new gas plant. Any further development of data centres will impose extreme pressures on the electricity system due to additional demand, including from those **8 data centre developments with grid connections. It is unacceptable, from both a moral and policy perspective, for data centres to continue to be approved and connected while households and smaller businesses are being asked to reduce their demand over the coming winter and beyond due to the gas crisis.** The MaREI centre has noted a pause in the connection of new data centres as the most impactful single action the Government can take to reduce electricity demand.

The recognition in the Department's new Policy Statement of the high demands on the electricity system, the importance of decarbonisation and the need to support renewable generation and storage are all welcome. However, there are several problematic elements of the Statement:

- The principles in the Statement are only noted as preferences. We call on the Department to go beyond recommendations such that any such developments are *obliged* to support renewable generation and storage and reach net zero services.
- It is concerning that while sectoral emissions ceilings are noted in the Statement, neither these targets nor the Climate Law itself are referenced as a key principle. We would underline that the Department of Enterprise has legal obligations related to climate action (see Section 2) and any seeming dismissal or deprioritisation raises not only legal concerns but also reputational damage for the Department.
- The Statement notes that new climate obligations "*will be very challenging to meet given that total electricity demand over the next ten years is forecast to grow by between 19 and 50 per cent, driven by a range of factors including large energy user demand growth and the electrification of heat and transport*." This comment seems to suggest that new legally binding targets may not be met from the get-go, ignores that 'large energy user[s]' refers to data centres themselves, and also seems to take for granted that such growth is already guaranteed. It must be clarified that new sectoral emissions ceilings are not mere considerations and that any data centre developments must respect legally binding commitments.
- The risk of further lock-in to gas-fired generation is largely ignored. The addition of new gas generation purely to satisfy data centre demand is not in accordance with our climate commitments and risks undermining the necessary decarbonisation of Ireland's energy sector. The issue of on-site (i.e. fossil gas) generation is rejected for islanded developments but ignores that the same risks are present in the context of connected developments. There is no guarantee that this generation can or will ensure that any such on-site generation will be able to use alternatives such as green hydrogen.

Recent analysis produced by UCC on behalf of the EU Greens/EFA group addresses data centre impacts on electricity supply and decarbonisation ambition in Ireland. It highlights that the focus for data centres should be on emissions reduction and net-zero targets, not simply

renewable energy commitments. It also notes that onsite generation from fossil fuels at data centres simply shifts the location of where emissions are produced rather than reducing them. It may also increase emissions as smaller onsite generators are less efficient than larger, grid-scale fossil fuel plants. Its recommendations include:

- Integrate decarbonisation plans into the data centre planning application process, and make critical investments in our energy grid to support the move to a 100% renewable power system over time.
- A dedicated forum on Data Centres within the National Dialogue for Climate Action.
- Disclosure of annual data centre emissions and projections of future emissions.
- Preventing speculative Data Centre applications which can inflate expected future energy use by increasing the initial grid connection fees.

Public Participation

Research by UCC MaREI has highlighted that community engagement helps to bridge the disconnect between communities, industry, and government bodies. They note that within most institutions and public bodies, community engagement is often regarded as less important when compared to financial, actuarial, or environmental risks. Major business developments, particularly those relating to infrastructure, should show where community feedback has been added to the project

A fundamental element in ensuring the success of climate action is citizen buy-in through long-term, inclusive and transparent public participation. The approach taken by EirGrid as part of their comprehensive consultation and community engagement process on their 2021 'Shaping Our Electricity Future' strategy, and also by DFAT for their consultation on a new international development plan in 2019, are instructive in this regard. We recognise that a more comprehensive approach may raise resource challenges and we welcome the opportunity to discuss how such challenges can be overcome and how ongoing public participation can be further developed across all relevant Departments.

We recommend that the Department utilise fora to address challenges related to policy implementation in an open and balanced manner together with civil society and community groups, such as through DECC's National Dialogue on Climate Action and the NESC Council.

Solar

As noted above, there is growing demand for the installation of solar panels on homes, schools, farmhouses and businesses across Ireland. There is the potential for economic benefits for businesses and communities from the installation of solar panels, including a reduction in electricity bills and income generated from selling surplus renewable electricity. The rollout of microgeneration such as solar is also an important element of Ireland's target to reach up to 80% renewable electricity by 2030. The EU's RePowerEU plan includes a Solar Rooftop Initiative with a phased-in legal obligation to install solar panels on new public and commercial buildings and new residential buildings. However, Ireland has low levels of solar panel installation in comparison to the UK and to other EU Member States due to ongoing planning obstacles in the Department of Housing permitting and regulatory

obstacles, including the current planning restrictions. We recommend that the White Paper actively support installation of solar panels for both SMEs and community buildings.

Greenwashing

One of the biggest threats that the enterprise sector poses to climate action is in the area of 'greenwashing' where companies present and advertise services and products as climate neutral when in fact they are not. This is particularly true of Gas Networks Ireland promoting fossil methane gas with small amounts of biogas as sustainable, as well as car manufacturers promoting self-charging and plug-in hybrids as environmentally friendly alternatives to ICE cars. The basic consumer complaints approach, as well as the 'name and shame' section used by the Advertising Standards Authority of Ireland are not fit for purpose and Ireland needs an advertising watchdog with investigative and sanctioning powers. Companies must also be legally obliged to provide transparent information on their whole of supply chain climate impacts. They should be given clear and legally-binding methodologies on how to measure, analyse and report GHGs.

A proposal for an EU directive to regulate human rights and environmental harms in companies' global value chains was released in February. This will have major implications for Irish businesses, however it suffers from various weaknesses and loopholes. We recommend that the Irish Government ensures that the Directive applies to all Irish businesses, puts clear responsibilities on companies to prevent abuses in their supply chains, and allows communities to seek justice in Irish courts if abuses happen.[44] The legislation must also include concrete obligations and liability for companies to reduce harmful GHG emissions throughout their value chains and guarantee affected peoples' and workers' rights to participation and consultation, as well as protection measures for human rights and environmental defenders. It must also ensure supervisory authorities have sufficient resources to conduct real investigation of impacts on the ground.

7. What measures should be taken to address the risks that climate change poses for enterprise?
8. Are the measures that can be taken to assist businesses sustain the additional operating costs associated with moving to new, low-carbon technology?

Section 5 Built Environment

Given the scale of both energy price crisis, as well as climate objectives, Friends of the Earth recommends that Government urgently prioritises increased supports and incentives to insulate 100,000 homes in 2023 including increasing 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.

[44] For further information see https://icbhr.org/assets/reports/Make_it_your_Business_ICBHR_FINAL.pdf

The focus must be on reaching those most at risk of energy poverty and those who rely on coal and turf. A proactive approach is necessary i.e. sitting down with organisations working directly with vulnerable households, such as SVdP and Age Action, in order to plan a coordinated outreach campaign offering wrap-around supports for retrofitting rather than waiting for individuals to apply to SEAI for a grant.

In order to prevent fossil fuel lock-in and prioritise rollout of deep retrofits, a regulatory framework for fossil fuel phase-out must be developed alongside increased access to energy efficiency measures and alternative zero-carbon heating options. Friends of the Earth recommends the following measures and calls for this process to be supported by policy and legislative change (see also section 13 below).[45]

- A ban on fossil fuel boilers in new buildings in 2023 (in line with 2019 and 2021 Climate Action Plan commitments).
- A ban on further expansion of the gas distribution network from 2023 through legislation (see below).
- A ban on sale of new fossil gas boilers for existing buildings by 2028.
- Phasing out fossil fuel boilers in existing buildings, prioritising residential homes, by 2033.

The right to energy must be at the forefront of climate action and anchored in all climate policy. The impact of energy efficiency policies on energy poverty must be independently assessed, and improved data collection is critical. All retrofitting plans and policies must be developed with the direct involvement of people facing energy poverty, alongside the NGOs representing them. This means that the SEAI should be assigned new objectives and additional resources related to community engagement and public participation.

The Free Energy Upgrades scheme is a positive move towards addressing energy poverty and prioritising vulnerable and low-income households in the energy transition. However, the SEAI must immediately cease installation of fossil fuel boilers through this scheme. Installing fossil fuel boilers into the homes of low-income families risks locking them into fossil fuel heating for many years, leaving them vulnerable to global shocks like the current energy crisis.

Targets for retrofitting of local-authority owned social housing should be increased. Friends of the Earth recommend that by 2030, all social housing stock be retrofitted to a B2, installed with fossil-free heating, and where feasible, solar PV installed.

We recommend that Government explores the idea of a “Basic Energy Guarantee” as proposed by the New Economics Foundation in the UK and Age Action in Ireland.[46] Every household would get a basic allowance of electricity and gas, at a low rate for everyone and free for older people and welfare recipients. Usage at above that level would be at the very high market rates or more. This programme would include a phase-out plan whereby gas

[45] See: https://www.oeko.de/fileadmin/oekodoc/Phase-out_fossil_heating.pdf

[46] Age Action (2022) An Energy Guarantee for Older Persons: Policy Brief. Available at: ageaction.ie/sites/default/files/age_action_energy_guarantee_for_older_persons.pdf

allowances are gradually replaced by increased allowances for electricity, in order to ensure that there is an incentive to switch away from gas appliances.

Integrated, system-wide and future-proofed energy and heat planning is necessary for the coordinated implementation of national climate policy at regional and local level. It will also ensure that bottlenecks and synergies are identified. A coordinated approach to heat planning is urgently needed where distinctions are made between homes/communities/regions based on the most suitable type of heating, with certain homes and communities being prioritised for heat pumps, and others for district heating. The revision of the EU's Energy Efficiency Directive provides new provisions regarding proposed heating and cooling assessment and planning. This includes that Member States must prepare local heating and cooling plans for areas with populations higher than 50,000. Urban centres will therefore have greater input and a clear stake in how heating in their localities should be planned and delivered. It is important that gas distribution plans do not preclude or prevent such local planning.

Currently, some homes that may be eligible for district heating in the coming years are being encouraged to invest in heat pumps and are receiving grants for doing so. Phase-out regulations for gas should be connected to heat planning, as the decarbonisation of space heating will require at least a partial reduction of the gas distribution grid. This will require a regulatory framework for decommissioning of the gas grid.

1. Currently SEAI provides approx. 50% of the grant of retrofit to Landlords, Housing for All commits to introducing a minimum BER for rented properties from 2025 onwards. What further supports can be put in place to address the split incentive when retrofitting rental properties (residential and commercial)?

A tailored retrofit plan for the private rented sector is necessary with clear milestones, targets, regulations and funding, as laid out below.

Minimum Energy Performance Standards

Friends of the Earth support the introduction of Minimum Energy Performance Standards (MEPS) in the private rental sector from 2025. Clear dates, timelines, and targets for the implementation of MEPS in the private rental sector must be set out in the new Climate Action Plan in line with the proposed revision of the Energy Performance of Buildings Directive (EPBD), and as is already being implemented in several countries (eg. the UK & France).[47] The Irish Green Building Council suggests introducing a minimum energy efficiency standard of D2 by 2025, and to gradually increase it to C1 by 2030.[48]

A well-signalled lead-in time will be critical to give time to landlords and investors to adjust.[49] A communication campaign for landlords announcing the introduction of MEPS must begin in 2023 at the latest, well ahead of the planned introduction in 2025. There should be a clear

[47] As of August 2022, rents of homes with an EPC F or G are frozen in France (Loi Climate et Résilience 2021). In the UK, the minimum energy efficiency standards (MEES) allowed for rented properties are a minimum of an E rating on their Energy Performance Certificate (EPC).
[48] Irish Green Building Council - Introducing Minimum Energy Performance Standards in the Private Rental Sector. Available at: https://www.igbc.ie/wp-content/uploads/2019/06/IGBC-SEAI-Report-Final.pdf
[49] ibid.

communication strategy coordinated with landlord representatives, SEAI, RTB and Local Authorities to engage with both landlords and tenants around what is expected, the actions they can take and the implications of not meeting standards.[50]

Introducing MEPS can additionally protect tenants who would have no power to negotiate an energy efficiency upgrade in their rented properties.[51] Under such regulation, the responsibility rests with the owners, who must ensure a reasonable energy efficiency level in rental units. To ease the burden of compliance by landlords, the availability of specific, tailored financial incentives that overcome the barrier of the upfront costs should be considered alongside the regulation.

Tenant Protections

Alongside the introduction of MEPS, eviction and rent-hike protections for tenants must be introduced for when retrofitting measures are being carried out in their homes, in order to prevent “renovictions”.

Financial Incentives & Support

Tailored technical and financial support for small landlords and tenants should be introduced alongside MEPS. Comprehensive guidance should be offered from the introduction of MEPS through to the completion of retrofitting works. Best practice on carrying out deep retrofits with tenants in-situ must be developed and shared through One Stop Shops.

Funding should be made available, equivalent to Better Energy Warmer Homes grants, to encourage landlord action.This SEAI scheme should be expanded and made available to tenants receiving a social welfare payment (including Housing Assistance Payment) on the condition that a long-term lease of over 5 years, or an indefinite lease, is offered to the tenant.

The low-interest loans announced in the National Retrofit Plan in 2021 should be made available to small landlords (i.e.landlords with 1 to 2 average-sized properties) immediately. Further tailored financial incentives should be developed through direct engagement with landlord and tenant associations.

2. How can we encourage SMEs to upgrade the energy efficiency of the buildings they Own?

Introducing and implementing Minimum Energy Performance Standards for SMEs will be critical for encouraging SMEs to upgrade their existing buildings. In addition to regulation through MEPS, the current SEAI energy audit voucher system for SMEs should be expanded to ensure a free energy audit for all SMEs. A large communication & engagement campaign should be run to inform and educate SMEs on energy audits, MEPS, as well as the current grants available.

[50] SVP & Threshold “Warm Homes for All?” 2021. Available at: https://www.svp.ie/getattachment/b950a94b-f443-4982-a317-eee4afc7ebd8/Warm-housing-for-all-Strategies-for-improving-ene.aspx

[51] Irish Green Building Council - Introducing Minimum Energy Performance Standards in the Private Rental Sector. Available at: https://www.igbc.ie/wp-content/uploads/2019/06/IGBC-SEAI-Report-Final.pdf

3. What immediate actions can we take to address the skills shortage in the construction sector, to facilitate meeting our annual retrofitting targets?

Friends of the Earth has previously highlighted the lack of the capacity to carry out 500,000 retrofits to a B2 level by 2030, particularly in the context of the current shortage of skilled workers in the construction sector. The following barriers for increasing labour capacity for retrofitting in Ireland were identified through research carried out by Friend of the Earth[52]: a lack of willingness to enter into trades; a need for the industry to be rebranded as a modern, climate-friendly industry with good employment prospects; the ongoing housing crisis is a barrier for attracting labourers from outside of Ireland; and women are generally less likely to enter the sector. An additional barrier to achieving retrofitting targets noted in FOE's previous research was the preference by many households for trusted, local labourers to carry out work in their home.[53] Local authorities should have responsibility for engaging communities in retrofitting, campaigns should be run in every town with information on the grants available, as well as encouraging young people and existing workers to undertake retrofitting skills training.

To address this skills shortage, the Government should focus on diversification of the industry. Target upskilling and retraining to workers outside the traditional construction background, including women and those from ethnic minority backgrounds. Partner with Solas to educate and engage adult learners about retrofitting & heat pump industries. We note that in Belgium the three main trade unions and employers work together in the development of training courses for construction workers for green buildings and retrofitting which the government then provides.

To address the lack of willingness of young people to enter into trades, jobs in construction and retrofitting must be high-quality and well-paid, with a focus on retention of workers.

Analysis should be carried out on the retrofitting and heat pump skills gap, and a strategy put in place with timelines and targets to address this gap.

4. How can we ensure that necessary skills will be available to support district heating Projects?

The addition of new modules to existing courses in similar areas could bridge the district heating knowledge gap that currently exists in Ireland. This could provide people with the skills and qualifications needed to design, install and maintain this major new renewable energy infrastructure, and enable DH contractors to recruit local, highly-skilled workers.[54]

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[52] Friends of the Earth (2022) Barries to Retrofitting and Heat Pump Installation in Ireland. Available at: https://www.foe.ie/assets/files/pdf/blockages_to_retrofitting_and_heat-pump_installation_in_ireland.pdf

[53] Friends of the Earth (2022) Barries to Retrofitting and Heat Pump Installation in Ireland. Available at: https://www.foe.ie/assets/files/pdf/blockages_to_retrofitting_and_heat-pump_installation_in_ireland.pdf

[54] Codema 2020, Submission to the Public Consultation to Inform a Policy Framework for the Development of District Heating in Ireland. Available at: https://www.codema.ie/images/uploads/docs/Codema_Submission_to_District_Heating_Policy_Framework_Consultation_Feb_2020.pdf

5. 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?

The Department of Housing, Local Government and Heritage should significantly increase funding and targets for the local authority retrofit programme. It is often these households that are at the frontline of energy poverty and who would most benefit from retrofitting supports. Retrofitting social housing can act as a testbed for project aggregation, hence reducing costs and improving qualities.[55] A new target of retrofitting all social housing to a B2 standard, with fossil-free heating, and solar PV where feasible, should be set for 2030

6. 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?

We recommend that the Government remove, or at least substantially reduce, the costs of the SEAI Technical Assessment needed for installation of Heat Pumps. The current grant should be offered irrespective of heat pump take up, as has been recommended by the Climate Change Advisory Council Annual Review.[56] Additionally, the SEAI grant application process itself currently acts as a barrier both for industry and for households. This process should be streamlined and simplified. Local energy advisors are also needed at a community level to build trust in the retrofitting process, as well as raising awareness and acting as a point of information for queries on retrofitting processes and grants.

7. How could the roll-out of district heating be accelerated and what needs to be done to expand its coverage in Ireland?

As noted above, homes that may be eligible for district heating in the coming years are being encouraged to invest in heat pumps and are receiving grants for doing so. Gas Networks Ireland are also continuing to connect homes in areas with the most potential for district heating. Phase-out regulations for gas should be connected to heat planning, as the decarbonisation of space heating will require a reduction of the gas distribution grid. This will require a regulatory framework for decommissioning of the gas grid.

We note in this regard that GNI's role in both putting forward gas network development plans while at the same time promoting expansion of the gas network raises conflict of interest risks. GNI network plans to date do not align with Ireland's decarbonisation objectives nor do they properly take account of wider energy system decarbonisation and longer-term reductions in gas supplies through electrification and demand-side measures. Delivery of new connections are based on projected gas demand scenarios which are produced by GNI.

[55] Irish Green Building Council submission to Ireland's 3rd Long-Term Renovation Strategy. Available at: https://www.igbc.ie/wp-content/uploads/2021/01/IGBC_Submission_LTRS2020_final.pdf
[56] Climate Change Advisory Council Annual Review 2022. Available at: https://www.climatecouncil.ie/media/climatechangeadvisorycouncil/contentassets/publications/CCAC-ANNUAL-REVIEW-2022.pdf

A communications strategy should be developed for homes identified as being eligible for district heating in coming years, as these homes are currently being targeted for heat pump grants.

8. Are there any specific obstacles in the planning system that is impeding the rollout of district heating and the national retrofit plan? How can we overcome these barriers?

Friends of the Earth has undertaken research on barriers to retrofits which is available here. In relation to obstacles, we also note the following:

- Continuing to connect new builds to the gas grid, as noted above.
- Households continuing to invest in new fossil fuel boilers locking them into expensive and polluting fossil fuel use for years to come.
- Lack of awareness of the benefits of retrofitting alongside lack of awareness of grant eligibility are barriers.

We recommend:

- A large-scale public information and engagement campaign should be run, targeted to different audiences.
- Households in eligible areas should be informed as soon as possible if district heating will be available in coming years.

9. What policy levers are needed to encourage and support the retrofitting of shared properties e.g. apartments?

Consultation should be carried out directly with apartment owners via membership organisations and community networks to identify specific needs of this cohort to undertake retrofitting.[57]

The Government should look to EU counterparts for best practice on retrofitting of shared buildings, and in 2023 a pilot scheme for retrofitting apartments should be launched. Lithuania is an example of putting in place an effective institutional system to provide technical assistance for the renovation of multi-apartment buildings.[58] A dedicated public agency, the Housing Energy Efficiency Agency (BETA) has been set-up to administer and coordinate the provision of technical support to various stakeholders throughout project design and implementation in multi-apartment buildings.[59]

[57] SVP & Threshold "Warm Homes for All?" 2021. Available at: https://www.svp.ie/getattachment/b950a94b-f443-4982-a317-eee4afc7ebd8/Warm-housing-for-all-Strategies-for-improving-ene.aspx

[58] IKEM (July 2020) Lessons learned for international climate policy from the programming, implementation, and monitoring of the European Structural and Investment Funds in EU Member States https://climatestrategies.org/wp-content/uploads/2021/03/cs-ndc_tracking_eu_aug_2020.pdf

[59] BETA assists housing administrators and municipalities with preparing and evaluating applications for energy efficiency retrofit of multi-family buildings, it supervises project implementation and assures quality of works, it also administers the ESIF grant support scheme which covers a share of total investment costs for the most in-need households. BETA is also involved in a range of capacity

10. 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?

Data collection on energy poverty must be improved to ensure any measures to address energy poverty are targeting those most in-need. Near-term retrofitting sub-targets for groups and cohorts who are at the highest risk of energy poverty should be introduced.[60] The proportion of each group that has benefited from energy efficiency measures should be monitored and reported on.

As an immediate measure to address energy poverty, Friends of the Earth recommend insulating 100,000 homes in 2023, as noted above. The focus must be on reaching those most at risk of energy poverty and those who rely on coal and turf. We recommend that SEAI does not wait for people to apply for a grant, the SEAI should sit down with the likes of the SVP and Age Action to plan a coordinated outreach campaign offering wrap-around supports for retrofitting.

In September 2022, Friends of the Earth partnered with 42 anti-poverty, housing and environmental organisations to develop a joint set of policy recommendations on tackling energy poverty while reducing emissions by 51% by 2030.[61] These recommendations include:

- 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.
- Explore a sliding scale of grants and low-cost loans for Home Energy Upgrades based on an income assessment such that lower income households could avail of close to full funding for deep retrofit.
- In its 2021 Technical Report on Carbon Budgets, the Climate Advisory Council found that solid fuel use for primary home heating is predominantly associated with poorer households, rural households and older occupants.[62] A dedicated retrofitting programme for households solely relying on solid fuel heating systems should be established and funded.

building activities, training and information dissemination thus creating an enabling environment for replication of energy efficiency retrofits across Lithuania.

[60] This includes households and children in poverty, people with ill-health or disabilities, and the Traveller community.

[61] 42 organisations sign a Joint Letter on Energy Poverty & Pollution https://www.foe.ie/news/42-anti-poverty-environmental-organisations-unite-to-demand/

[62] Climate Change Advisory Council (2021). Carbon Budgets Technical Report. Available at: https://www.climatecouncil.ie/media/climatechangeadvisorycouncil/Technical%20report%20on%20carbon%20budgets%2025.10.2021.pdf

- Traveller families in mobile homes are particularly at-risk of energy poverty, with 77% living in energy poverty before the current energy crisis. SEAI support should extend to providing solar PV on year-round occupied mobile homes.
- As noted previously, the SEAI should cease installation of fossil fuel boilers in homes receiving energy upgrades as part of the Warmer Homes Scheme, ensuring priority retrofitting and installation of heat pumps in the first instance.
- Extended ban on disconnections from energy suppliers for vulnerable households.
- Engage with households at risk of disconnections and fast tracking targeted interventions such as retrofitting or solar energy installation.

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

- Ensure that information is accessible and readily understandable.
- Ensure that the barriers associated with the grant application process are removed and the process is simplified and streamlined as much as possible, both for industry and for households.
- Pilot aggregated approaches to retrofitting.
- Target energy poverty in rural areas by setting up a dedicated retrofitting programme for households solely relying on solid fuel heating systems.
- Enable Sustainable Energy Communities to develop aggregate projects by putting in place an enabling framework for co-operative models.
- As recommended by SVP and Threshold, deploy Local Community Energy Advisors throughout every local authority to increase awareness and offer guidance on home energy improvements as well as community organised support programmes to engage and inform hard to reach energy users who would most benefit from energy efficiency upgrades.

12. Further to those technologies identified in previous iterations of the Climate Action Plan, what other additional measures could be used to reach our emission reduction target in this sector?

The revision and removal of taxes and levies from electricity can further improve the business case for heat pumps, particularly where those costs make up a high share of the final electricity bill for households. Countries that have done this include for example Denmark, the Netherlands, and, most recently, Germany.[63]

13. What specific measures would incentivise a greater rate of oil boiler replacement?

It is unclear whether this question is referring to replacing oil boilers with (a) a sustainable alternative such as a heat pump or (b) a more efficient oil boiler.

[63] Rosenow, J. et al. (2022) Heating up the global heat pump market. Nature Energy. Available at: https://www.nature.com/articles/s41560-022-01104-8#ref-CR29

It is important that Ireland adopt an ambitious and progressive approach to such obligations as part of the EU Energy Performance in Building Directive currently under negotiation. We recommend the following:

- Ban fossil fuel boilers in new buildings in 2023.
- Ban the further expansion of the gas distribution network from 2023.
- Ban the sale of new fossil gas boilers for any building by 2028.
- Phase out fossil fuel boilers in existing buildings, prioritising residential homes, by 2033. Ensure that everyone has improved access to energy efficiency measures and alternative zero-carbon heating options.

As noted above, the risk of continuing boiler replacement is that households become locked into long-term fossil fuel use. Policy and legislative measures are necessary to ensure this change and not merely building regulations. Such measures have already been progressed in other EU Member States including Austria and the Netherlands. See expert analysis of Member State measures in this report by the Oeko Institute. Austria has already banned the sale of oil boilers entirely, and is introducing a ban on the sale and repair of gas boilers from 2023. A report from a coalition of European NGOs has also shown that an EU-wide oil & gas boiler ban could result in Ireland reaching 90% of our 2030 renewable energy targets for heating & cooling.[64] In relation to the gas network, the Government should legislate to end further expansion of the gas network, particularly at distribution level, by amending relevant provisions in the 1976 Gas Act.[65]

Section 6 Transport

6.1 Sustainable Mobility and Demand Management

1. What obstacles exist in the planning system that may prevent greater modal shift from being achieved? Are there specific measures that can be implemented to avoid further forced car dependency or lock-in of unsustainable practices?

Successive Governments and local authorities have planned our towns and cities around cars and commercial vehicles with the result that traffic congestion and poor air quality are the norm in Irish towns and cities. Retail footfall is declining due to the rise in online shopping and the prevalence of large shopping developments outside of town centres. This is illustrative of the lack of coherence in the planning of our towns and cities. On the one hand planners want people to 'shop' in town but do not provide for other public services such as good quality housing, schools and other public facilities that would entice people to live in town and city centres.

Our cities and towns should be aiming to end the dominance of the car through the provision of integrated, shared mobility planning, active travel infrastructure, park-and-ride and car/bike/ebike hire.

[64] See: https://www.coolproducts.eu/wp-content/uploads/2022/07/Coolproducts-gas-boiler-ban-2022-_11-July-22.pdf

[65] See: https://www.foe.ie/assets/files/pdf/the_role_of_public_bodies_in_driving_irelands_decarbonisation_-_final.pdf

Plans should be developed to introduce a ban on vehicles with diesel engines from every major urban city centre by 2025 and extend the ban to all petrol vehicles by 2030

2. What changes should be considered in relation to the management of Ireland's road network (e.g. reducing speed limits, parking policy, road user/congestion charging) to reduce congestion and support the prioritisation of more sustainable modes?
3. What additional measures should be considered to improve the quality or attractiveness of public transport or active mobility solutions as an alternative to private car use? (e.g. dedicated lanes, secure bike parking, rest areas).
4. What policies or measures can be considered to further incentivise the use of more sustainable modes of transport for education and leisure-related journeys?

Public Transport

- The school run is one of the leading reasons for short car trips.
- Ensure that all children can get to school without using a car by September 2023.
- Guarantee a free school bus place for all children who live more than 1km away from school. Invest in a fleet of electric buses and mini-buses.
- Building safe routes to school for cycling and walking within a 3km radius of every school.
- Ensure all new urban buses are 100% electric.
- Develop a rural transport plan based on a vision of "every village, every hour".
- The reductions in public transport fares have been popular in Ireland, but Germany's €9-a-month scheme was a runaway success. Trial a similar scheme here for 6 months.
- Implement the BusConnects projects, in conjunction with communities to optimise layout, and plan for bus connects type infrastructure for all towns above (e.g.) 50,000 people by 2030.
- Expand rural bus links to improve public transport connections between and within rural towns and villages. According to the Dublin Commuter Coalition, currently only 7 towns outside of Dublin suburban towns have public bus services: Navan, Sligo, Dundalk, Balbriggan, Drogheda, Kilkenny and Athlone.[66]
- Support the development of a light rail system for Cork and Galway cities and devise new urban rail plans for Limerick and Waterford cities.
- Progress the appraisal, planning and design of the Luas extension into other areas of the greater Dublin area (e.g. Bray, Lucan, etc).
- Progress the full electrification of the rail network and upgrading/expanding the current network.
- Focus on reducing train journey times and increasing frequency on all inter-city rail routes to better compete with car journeys.

Active travel:

- Prioritise safe cycle routes to schools and car free zones at school gates.
- Ensure that all future and existing cycling paths are physically segregated from roads and pedestrian paths, sign posted, maintained to a high standard and well lit.

[66] See: https://twitter.com/DublinCommuters/status/1470782717600190466

- Provide safe, secure and well-lit bicycle parking in towns and cities in particular at DART, train, bus stations and all park and ride facilities and in the premises of large companies.

5. What potential do blended working policies or remote working hubs have to help reduce commuting travel and volume of transport emissions?

- Commuting to work is the single biggest reason for passenger transport demand (30%).[67]
- A recent study found that over 61% of workers used private vehicles to travel to work.[68] This is very likely to be even higher in rural areas that are poorly served by public transport and safe cycling options.
- Recent research by MaREI shows that the "cumulative effect of remote working is vitally important when considering low carbon transitions".[69]
- Widespread remote working could cut passenger transport CO2 emissions by 0.4 million tonnes (2 days a week) and 1 million tonnes (5 days per week) in 2030.[70]

6. Is the level of transformation required of our transport behaviour patterns well understood and what more can be done to demonstrate the benefits of modal shift? How can the overall impact of wider decarbonisation measures be measured most effectively (e.g. capturing wellbeing impacts, health impacts, liveability, permeability, etc.)?

6.2 Electrification

1. How can EV and other transport grants/supports be more targeted (spatially, demographically) to deliver additional emissions reduction or address distributional impacts in a more equitable manner?

- Government and state bodies must be clear that a switch to EVs is not the silver bullet for all our transport problems. We need progressive solutions to get people out of cars. For example in France and Lithuania a scrappage scheme is in place where people can trade in their old car and receive a grant towards the purchase of an e-bike.[71]
- Expand the bike to work scheme to €2,000 to accommodate and include eBikes. Replicate the Scottish model of interest-free loans for e-bikes. Residents can receive loans for up to two e-bikes (£3,000 per bike) or one e-cargo bike (£6,000 per bike) over a four-year period without interest or admin fees on repayments.

[67] What impact could remote working have on Irish passenger transport CO2 emissions? MaREI. 2021. Available at: https://www.marei.ie/wp-content/uploads/2021/09/ITRN-2021-EPMG.pdf
[68] Remote working during COVID-19. Ireland's National Survey. May 2020. Available at: https://westerndevelopment.ie/wp-content/uploads/2020/07/Remote-Working-National-Survey-Report-May-2020-final.pdf?dl=1
[69] What impact could remote working have on Irish passenger transport CO2 emissions? MaREI. 2021. Available at: https://www.marei.ie/wp-content/uploads/2021/09/ITRN-2021-EPMG.pdf
[70] What impact could remote working have on Irish passenger transport CO2 emissions? MaREI. 2021. Available at: https://www.marei.ie/wp-content/uploads/2021/09/ITRN-2021-EPMG.pdf
[71] See: https://ebiketips.road.cc/content/news/france-is-now-offering-a-4000-e-bike-subsidy-to-people-who-trade-in-their-car-3963

- Introduce supports for low income families, students, stay-at-home parents, self-employed people, people on carers, or disability allowance as well as those on job seekers support for example to purchase bicycles at reduced cost, similar to the Bike to Work scheme, to encourage Active Travel, and reduce transport and fuel costs.

2. What specific actions can government take to help create a robust second-hand market for electric vehicles?
3. What specific actions can government take to help accelerate or achieve parity in the total cost of ownership between electric vehicles and ICE vehicles?

4. What specific policies can assist in reducing the overall volume of ICE vehicle kilometres driven? Is there further scope to effect a change in the composition of the private car fleet to shift the vehicle mix away from higher emitting classes?

- End the sale of new internal combustion engines (ICE) cars within 3 years. Start by immediately raising VRT on cars based on emissions and weight, so that the highest band is at €5,000 by 2025. Ban the sale of new ICE cars from 2026.
- Plans should be developed to ban vehicles with diesel engines from entering every urban city centre by 2025 and extend the ban to all petrol vehicles by 2030.
- Ban SUVs from all city and town centres and around all educational buildings. Ban the sale of SUVs for those who don't need them by 2025. Increasing SUV purchases has been shown to have been particularly negative for emissions and air pollution,[72] cancelling out gains made through the switch to electric vehicles. This is also now a major road safety issue given the reduced road space available to cyclists and pedestrians as a result of large SUVs. There is a need for measures to actively disincentivise SUV purchases where possible, including through significantly higher motor taxation for SUVs clogging up our cities and towns.
- Immediately implement a congestion charge on all private vehicles entering Dublin city centre to reduce traffic, decrease emissions and air pollution, as well as generate revenue for public transport, cycling and walking. While this should start in Dublin in the first instance it should be extended to other urban areas as more public transport comes on stream. Charges should be based on car/engine size with the largest cars, particularly SUVs, facing the largest charges.
- We are mindful that the carrots and sticks should not be applied to rural and urban areas in the same way. For example car dependency, and therefore increased taxation on cars and fuel, is particularly challenging for rural areas given that rural communities often have few alternatives.
- The Climate Action Plan 2023 should address engine idling laws – which are commonplace in other European nations – to tackle the high rate of polluting emissions produced in Ireland from engine idling, especially from buses. Coupled with an awareness programme, this could be implemented quickly and have benefits on Ireland's emissions and on public health.

6.3 Freight / Commercial Sector
What specific measures can be applied in the commercial transport sector to

[72] IEA (2019) Growing preference for SUVs challenges emissions reductions in passengers car market. Available at: https://www.iea.org/commentaries/growing-preference-for-suvs-challenges-emissions-reductions-in-passenger-car-market

encourage or accelerate a change to EVs or to other zero carbon alternatives? What potential do digitalization, innovation and efficiency improvements in the commercial sector (including, e.g., establishing logistics hubs) have to deliver emissions abatement? What are the barriers to delivery of each?
How can the climate costs of home delivery services be mitigated? Should there be a surcharge - depending on the mode of delivery, with cargo bikes and EVs exempt. If this was to be considered, how would transparency around this charging be affected?
As a transitionary fuel to help decarbonise the road haulage sector, what obstacles to you foresee in raising the blend proportion of biofuels in road transport to 10% bioethanol (E10), and 20% biodiesel (B20) by 2030? Is there potential for greater ambition?

6.4 Rural Transport

1. What expectation or level of public transport service is appropriate in rural communities and what other key measures can support a transition to sustainable Modes?

- Rural Ireland suffers from a large deficit in public transport provision. The lack of public transport options in combination with reliability issues mean that rural households are more reliant on their cars to commute to work and to access basic services. According to the CSO, over 83% of all journeys in thinly populated rural areas are by car, and public transport is used 4 times less than in densely populated areas.[73]
- Public transport and active travel need to be a low cost, fast, flexible, hassle free alternative to car dependence.
- Where public transport and active travel are less feasible (i.e. in sparsely populated areas and in areas without public transport options), tailored supports should be made available for the purchase of EVs and installation of home chargers. The longer distances travelled in rural areas mean a greater need for extensive expansion of the charging network. Without these services being available and reliable, there may be reluctance to switch to an EV.

2. What infrastructure or further measures are required to help improve the safety of rural roads and further incentivise the use of walking and cycling for shorter journeys in rural areas?

- Construct cycling greenways across the country to connect rural towns and villages to facilitate leisure, tourism and commuting needs, as well as providing more space within town centres for safe cycle lanes and bicycle parking.
- Develop a connected system of cycle routes through local authority areas. The emphasis should be on networks and cycle routes that are connected i.e. not isolated unconnected routes.
- It is crucial that all future and existing cycling paths are physically segregated from roads and pedestrian paths, sign posted, maintained to a high standard and well lit.
- Prioritise safe cycle routes to schools and car free zones at school gates.

[73] Central Statistics Office. (2020). National Travel Survey 2019. Dublin: Central Statistics Office.

- Increase funding available for routes to school - the school run is one of the main reasons for short car trips. While the €15 million allocated last year was welcome, only 170 schools are covered under Round 1 of the scheme,[74] and although there is a commitment to work with 760 schools on a rolling basis over the coming years this represents just a fraction of the 4000 primary and post primary schools in Ireland.
- Reduce speed limits to make our roads and streets safer and more accessible for everyone and to promote active travel. It is absolutely essential to introduce a default 30 km limit in built up areas and around schools as per the Stockholm Declaration.
- Increasing funding for active travel across all levels of Government including expansion of the Active Travel Teams within local authorities.
- Provide cycle training for all ages, especially children. In the Netherlands, an overwhelming majority of children get to school by bicycle - 84% of secondary school children who live closer than 5km from school travel by bicycle.[75] To ensure that they are safe, over 200,000 Dutch children receive lessons and take a "traffic test" before they start secondary school. We are lagging far behind in Ireland, and a whole school approach to cycle training should be adopted prioritising those schools that already have safe routes to school for training, and expanding from there.The cycle training budget and number of Cycle Right trainers should be increased. Currently only one class (usually 5th) can apply but training needs to start earlier to build the cycling habit and reduce cars/emissions on the school run. Emission benefits are cancelled out if only one child in a family receives training and siblings still have to be driven to the same school.

6.5 Just Transition & Communication

1. What are the key elements of a just transition in transport? Are there certain cohorts that should be given exemptions / insulated from potential increased costs?

- Investment in public transport and active transport infrastructure should be prioritised in areas which are more disadvantaged.[76] This would lower transport poverty as well as facilitate a reduction in transport emissions.
- To ensure a Just Transition in transport, it is crucial that measures are not applied to rural and urban areas in the same way. For example car dependency, and therefore increased taxation on cars and fuel, is particularly challenging for rural areas given that rural communities often have few alternatives. Congestion charges and other measures to reduce pollution and emissions should start in Dublin in the first instance.
- Ensure that grants and schemes aimed towards helping and encouraging people to purchase bicycles, cargo bikes and e-bicycles are broad enough to include those on lower incomes, students, stay-at-home parents, self-employed people, people on carers, or disability allowance as well as those on job seekers support, for example.

2. What platforms or mechanisms can best facilitate the sharing of data, transport

[74] See: https://www.oireachtas.ie/en/debates/question/2021-12-16/10/

[75] How do children get to school? Differences between Nederland and Vlaanderen. Available at: Reizen naar school (cvs-congres.nl)

[76] See https://www.sciencedirect.com/science/article/pii/S0967070X20309215

modelling and research findings with policy makers, local authorities, research groups, local communities and the wider public?

6.6 Open
What other opportunities exist to support the decarbonisation of the Transport Sector?

- Phase out state supports for internal flights matched by an enhanced long term development and investment model in the rail network and in train stations.

Section 7 Agriculture

We endorse the points made on Agriculture in the Environmental Pillar submission to the Climate Action Plan 2023 Call for Expert Evidence. Friends of the Earth also supports the recommendations noted in the position paper on behalf of the Environmental Pillar, the Stop Climate Chaos Coalition, and the Sustainable Water Network (SWAN), Towards a New Agricultural and Food Policy for Ireland Recommendations for Government.[77]

Agriculture is the most significant pressure on Ireland's nature, water, climate, and air. It is responsible for over 50% of the pollution in rivers and is the primary cause of fish kills, water eutrophication, and groundwater contamination.[78] Ireland ranks last out of 180 countries for sustainable nitrogen management i.e. balancing efficient use of nitrogen fertilizer with maximum crop yields.[79] Ireland also has among the worst levels of wetland loss and N2O emission growth, and is in the bottom 5 of all EU countries for CO2 emissions from land cover change.[80]

Agricultural emissions now account for over a third (38%) of Ireland's total emissions, and increased by 10% between 2015 and 2020.[81] The majority of these emissions are methane (66%, coming largely from animals and the manure they produce) and nitrous oxide (32%,

[77] See https://www.stopclimatechaos.ie/news/2021/04/27/towards-a-new-agricultural-and-food-policy-for-ire/
[78] Jeremy P. Emmet-Booth, Sabrina Dekker, Phillip O'Brien. *Climate Change Mitigation and the Irish Agriculture.* s.l. : Climate Change Advisory Council, 2019. Available at: https://www.climatecouncil.ie/media/climatechangeadvisorycouncil/Working%20Paper%20on%20Agriculture%20and%20Land%20Use.pdf
[79] Wolf, M. J., Emerson, J. W., Esty, D. C., de Sherbinin, A., Wendling, Z. A., et al. *Environmental Performance Index.* s.l. : New Haven, CT: Yale Center for Environmental Law & Policy., 2022. Available at: https://epi.yale.edu/#:~:text=The%202022%20Environmental%20Performance%20Index,environmental%20health%2C%20and%20ecosystem%20vitality.
[80] Wolf, M. J., Emerson, J. W., Esty, D. C., de Sherbinin, A., Wendling, Z. A., et al. *Environmental Performance Index.* s.l. : New Haven, CT: Yale Center for Environmental Law & Policy., 2022. Available at: https://epi.yale.edu/#:~:text=The%202022%20Environmental%20Performance%20Index,environmental%20health%2C%20and%20ecosystem%20vitality
[81] EPA. *Ireland's Greenhouse Gas Emission Projections 2021-40.* 2022. Available at: https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/EPA-Ireland's-GHG-Projections-Report-2021-2040v4.pdf

coming largely from nitrogen fertilisers applied to the soil).[82] This, coupled with the fact that Ireland's land is a net emitter of CO2, means that for Ireland to meet its climate targets, we need to address emissions not only from the agricultural sector itself but also those being emitted from the soils and forestry. This presents significant challenges to Ireland's responsibilities toward achieving its near and long-term climate and energy targets, and its obligations under EU environmental directives and biodiversity strategies.

Recent policies have prioritised an input-intense model of agriculture focused on specialisation and intensification. As a result, dairy cow numbers increased by 32% between 2011-2018,[83] chemical nitrogen fertiliser use increased substantially in the same period,[84] and nitrogen pollution from ammonia exceeded targets under the National Emission Ceiling Directive since 2016.[85] This approach to agriculture locks farmers into an unsustainable commodity-driven food production system, leaving them vulnerable to external price and supply shocks, as we have seen as a result of Russia's invasion of Ukraine. Finally, these policies have also undermined Ireland's international reputation on food security by diverting even more land and fertiliser into producing feed for animals rather than food for people.

The Government must develop an approach for agriculture that is based on agroecology and is aligned with ecological limits and climate obligations.

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

- The key to reducing air, water and climate pollution from agriculture is reducing the use of chemical nitrogen fertiliser, which grew by more than 20% after 2010. It's fallen this year due to the skyrocketing price of the fossil fuels used to make it. The Government must ensure that chemical fertiliser use does not rise again in 2023 or 2024 and falls to 2010 levels no later than 2025, and continues to decline steadily to less than 200,000 tonnes by 2030. Cutting CH4 is the most critical warming reduction lever and CH4 emissions in the Irish agricultural system are related to Nitrogen use.
- Publish a revised roadmap for agri-related greenhouse gas emissions reductions that sets out a time scale to achieve, as a minimum, compliance with the carbon budgets, EU and national law, and an implementation and enforcement schedule that can be monitored on an annual basis.

[82] Jeremy P. Emmet-Booth, Sabrina Dekker, Phillip O'Brien. *Climate Change Mitigation and the Irish Agriculture.* s.l. : Climate Change Advisory Council, 2019. Available at: https://www.climatecouncil.ie/media/climatechangeadvisorycouncil/Working%20Paper%20on%20Agriculture%20and%20Land%20Use.pdf

[83] Jeremy P. Emmet-Booth, Sabrina Dekker, Phillip O'Brien. *Climate Change Mitigation and Irish Agriculture.* s.l. : Climate Change Advisory Council, 2019. Retrieved from https://www.climatecouncil.ie/media/climatechangeadvisorycouncil/Working%20Paper%20on%20Agriculture%20and%20Land%20Use.pdf

[84] See. https://www.cso.ie/en/releasesandpublications/ep/p-eii/environmentalindicatorsireland2021/landuse/

[85] An Taisce. *New EU report points to Irish agriculture's worsening environmental credentials.* 2020. Available at: https://www.antaisce.org/news/eu-report-reveals-worsening-environmental-credentials-of-irish-agriculture

- Establish a multi-stakeholder forum on agricultural diversification and climate change, with the purpose of developing a suite of new opportunities for farmers through programmes and schemes to promote diversification in agriculture.
- Compensatory measures for farmers should be put in place to incentivise herd reductions and diversification in the beef suckler and finishing sectors. Farmers relying on CAP payments for the bulk of their farm incomes should not be financially worse off by implementing herd reductions on a gradual basis.
- Publish a roadmap that brings Ireland into compliance with binding commitments on ammonia. The roadmap should include implementation and enforcement measures, and funding for farm abatement measures.
- Cease the drainage of wetlands and peaty soils. We recommend that targeted, customised supports and a verifiable pathway for the management, rehabilitation and restoration of all peatland types is implemented in line with the overall national targets.
- We also call for the introduction of a suite of agroforestry measures to promote natural regeneration.

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.?

- Develop a farmer and community-centred Just Transition action plan for the sector that includes diversification options with environmental co-benefits. We recommend support for the scaling up of local and indigenous nature-friendly food production, especially in cereals and pulses for human consumption, fruit and vegetables – a large proportion of which are currently imported at the expense of the indigenous tillage and horticultural sector.
- Diversification strategies should be based on the merits of delivering public goods that deliver landscape and catchment-scale environmental and socio-ecological benefits.
- Scale up locally adapted results-based agri-environment payment schemes on all farm types to support farmland biodiversity. Scheme payments must be financially attractive and supported by improved monitoring and evaluation systems for biodiversity actions and outcomes. Schemes should support biodiversity, carbon sequestration and water quality including active rewetting and maintenance of bogs, riparian planting, agroforestry, continuous cover forestry and hedgerow conservation.
- The type of farming that supports nature is called High Nature Value (HNV) farming. We need it to help the biodiversity we have. We must reward farmers for the public goods that HNV farmland provides and improve its viability by promoting recognition and demand for these goods and services.
- Scale up local and innovative initiatives that shorten, amplify and democratise local food supply chains linking producers to consumers (such as Community Supported Agriculture schemes, farmers markets etc.). Open up marketing and new business opportunities for a range of HNV food produce (such as the development of farm shops, niche products, and ecotourism), and increase the value of HNV produce by linking food with environmental ethics.

- Support an increased uptake in organic farming in line with the EU Biodiversity Strategy 2030 target of having at least 25% of agricultural land under organic farming management.
- Incentivise a shift in the tillage sector away from producing feed grains for the livestock sector, to producing outputs such as cereals and pulses directly for human consumption to reduce Ireland's reliance on imported food. Strengthen supply chains and the domestic market opportunities for Irish tillage farmers by supporting the production of organic certified cereals and pulses that offer price premiums for the tillage sector.
- Promote nature-friendly farming methods in the tillage and horticultural sector, including the use of Integrated Pest Management, reduced or no-till farming, crop rotation and cover crops, as well as leaving fallow plots and allowing for arable reversion next to existing natural habitats.
- Establish networks of agricultural innovation that provide an enabling environment for on-farm diversification. Facilitate peer-to-peer learning and knowledge transfer between farmers, government agencies, civil society, and research institutes.
- Review the curricula of all agricultural training colleges to ensure that the next generation of farmers have up-to-date skills and knowledge in ecology and climate change.

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?

- See responses above regarding use of renewable gas in the power sector.
- The question should be reframed and focused on asking whether in the first instance it is wise and appropriate to maximise the use of manure and silage for biomethane production. DECC should publish independent analysis on this issue. The supply of animal manures will favour larger farms, and silage production would depend on additional nitrogen fertiliser. The potential contribution of biomethane in agriculture needs to be assessed alongside other land uses including afforestation, solar/wind or horticultural uses.
- The SEAI have analysed the impact of the rollout of anaerobic digestors and increasing levels of biomethane. Their 2017 analysis[86] notes a wide range of challenges that would need to be overcome in order to allow for biogas deployment. It is important to consider any long-term linkage between agricultural production (which provides by-products of food waste, slurry waste and crop residue for anaerobic digestion) and the ongoing availability/supply of this new gas source. The SEAI state that "as food waste feedstocks are a by-product or waste from other processes, they are considered a finite resource. This limits how much supply can be increased in relation to increased demand which may lead to price volatility and price increases."

[86] SEAI. Assessment of Cost and Benefits of Biogas and Biomethane in Ireland, 2017. Available at: https://www.seai.ie/publications/Assessment-of-Cost-and-Benefits-of-Biogas-and-Biomethane-in-Ireland.pdf

- There are potential unintended consequences associated with large-scale biogas production which could include gas quality issues, methane leakage from digesters, or increased ammonia emissions from digestate.
- Finally, neither green hydrogen nor biomethane are sustainable solutions to replace fossil gas heating. They are either too costly, too risky, or environmentally unsound. Biogas should be primarily developed for use on farms (e.g. to heat or supply energy to farm activities/enterprises), or for specific local energy/industrial purposes.
- It should also be noted that there are significant uncertainties and risks regarding blending and injection into the gas grid. Biomethane should not be used as a means to allow for further expansion of the gas network, given gas lock-in risks. UCC analysis[87] notes that 'Although biogas is viewed as positive from a renewable energy perspective, it may have the unintended consequence of increasing the gas RAB and ultimately increasing the long-term stranded asset risk and barriers to change.' There is also a risk that greater volumes of standard fossil methane gas may be developed and inadvertently locked into the system in the event that sufficient biomethane production does not materialise.

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

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

- We recommend that landowners are rewarded for active maintenance and restoration of ecosystems, including rewetting of agricultural peatlands, rewilding, and blanket bog restoration, for example.
- Ireland's degraded peatlands emit approx 11 million tonnes of CO2e every year[88]. Cessation of drainage of wetlands and wet grassland soils is crucial. For cutaway bogs or partially drained bogs, the water table should be raised on peatlands following best peatland expert advice.
- It is recommended that the government significantly tightens and enforces the EIA regulations on land restructuring, habitat removal and drainage of wetlands.

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

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

[87] See: https://www.epa.ie/publications/research/climate-change/Research_Report_302.pdf
[88] See: https://data.oireachtas.ie/ie/oireachtas/committee/dail/32/joint_committee_on_climate_action/submissions/2019/2019-10-23_opening-statement-dr-florence-renou-wilson-university-college-dublin-ucd_en.pdf

place to support the role of the marine environment in climate mitigation (e.g. a regulatory framework, measurement and accounting rules)?

Ireland is committed to expanding the Marine Protected Area (MPA) Network by 30% and developing 7GW of offshore wind energy by 2030.

- Urgent implementation of Ireland's commitment to achieve 30% marine protected areas by 2030, by targeting the designation of 10% MPAs by 2025. This process should include long-term and meaningful engagement with key stakeholders including those who rely on the ocean for their livelihoods, in order to select sites that will not negatively impact Irish fishers, and to ensure a just transition.
- We need to introduce wildlife support below the sea like we do with nature reserves to ensure carbon sinks and marine biodiversity are protected.

9. What other opportunities exist to support the decarbonisation of the agriculture, landuse and marine sectors?
10. What specific measures can be taken in agriculture, forestry and land use to adapt to climate change?

Section 8 Waste and the Circular Economy

1. What are the main barriers to consumers embracing the Circular Economy, e.g. lack of awareness, increased costs compared to disposable products, lack of access to circular goods and services?
2. What other opportunities exist to support decarbonisation through the acceleration of a transition to the circular economy?

We support the calls in the Environmental Pillar submission including:

- VAT relief and tax credits for refurbished/repairs items to encourage the take up of repaired items. According to a European Commission Eurobarometer report[89], 77% of European citizens would be willing to have their goods repaired but hardly ever do so because it is too expensive. Re-use and repair activities need to be made cheaper in order for Europe to keep the value of products and prevent the wastage of resources.
- Tax on virgin plastic.
- Economic Incentives. The imposition of levies on disposable on-the-go packaging (including the latte levy) and expanding the plastic bag levy to encompass all single use bags to discourage the switch from plastic to paper bags, which have significant environmental implications and are a waste of natural resources.
- Ban on confusing claims/labels on packaging. All packaging should clearly state in what bin it should be placed. Additionally, packaging that meets the EN13432 standard must say that it is compostable and use the symbol agreed to by Cré. No other terminology, such as degradable or biodegradable, should be used as it is too confusing for the consumer and is misleading. Additionally, there are many food on

[89] See: https://ec.europa.eu/commfrontoffice/publicopinion/flash/fl_388_en.pdf

the go containers that look compostable, but have no label. These too must be labelled as to how to dispose of such items.

- Invest in and adopt a Community Based Social Marketing (CBSM) Approach.[90] We cannot continue the current expensive and ineffective large-scale information campaigns using advertising, social media and other general outlets to encourage individuals to adopt sustainable behaviour. Knowledge and awareness of an issue or behaviour often do not equate to long-standing behaviour change. We need a more active and immersive approach by getting into the community, understanding the barriers and benefits of adopting a certain behaviour and finding a strategy to reduce barriers and enhancing the perceived benefits and then piloting the strategy. This may cost a bit more at the outset and be more time and resource intensive, but the desired outcomes will be achieved at a higher level than that achieved through a pure education/public awareness campaign. The Food Waste Pilot Programme[91] recently conducted by the Waste Regions, Cré and the Irish Waste Management Association is a great example of this type of work with the potential for a fuller roll out of the findings from the pilot programme. Additionally, the Recycling Ambassadors Programme, conducted by VOICE, is another good example of CBSM where we ran 700 workshops to 25,000 people.[92]

Section 9 Public Sector

1. What opportunities exist for the public sector to step up its climate ambition?

The Climate Action Plan and associated processes must ensure that decision making in public bodies aligns with obligations set out in the recently agreed Public Sector Climate Action Mandate. This Mandate requires both the Department and public bodies under the Department's jurisdiction to reduce emissions in accordance with the 2021 Climate (Amendment) Act. It also sets out several other significant commitments, including on emissions reporting, improvements in energy efficiency, ending fossil fuels in heating, introduction of climate roadmaps, Green Teams, Management Board responsibility and use of zero vehicles.

2. What sort of practical changes would you expect the public sector to make in leading and delivering Ireland's climate ambition?
3. How can the public sector lead wider society to change? In the short-term, medium term, long-term?
4. What are the biggest barriers (resourcing / tech gaps / funding / policy gaps / etc.) for the public sector in reducing greenhouse gas emissions and how can they be overcome?

We remain concerned that elements within certain Departments and public bodies continue to dismiss or ignore climate obligations notwithstanding provisions of the Climate (Amendment) Act 2021. We note that Ministers are obliged to comply with carbon budgets

[90] See: Community-Based Social Marketing : Doug McKenzie-Mohr (cbsm.com)
[91] See: https://www.mywaste.ie/wp-content/uploads/2020/09/Food-Waste-Report-3.pdf
[92] See: Recycling Ambassador Programme | VOICE Ireland

and sectoral emissions ceilings set by Government [6A (10)(b) and 6C (9)]. Public bodies are also obliged to perform functions in a manner consistent with the climate action plan and the national climate objective. A much stronger approach is necessary by the Climate Action Delivery Board and the Senior Officials Group. This also requires actively integrating climate commitments into Departmental and public body strategies when they are being drafted, as opposed to the current approach which often involves vague commitments and references to "low-carbon" initiatives/targets.

It is important to note that several Ministers as well as bodies like the CRU, EPA and Office of the Planning Regulator have oversight powers of relevant bodies and must play a role in ensuring compliance i.e. a system which suggests, or tacitly accepts, that the Minister for Environment, Climate and Communication and/or DECC will act as a watch-dog for the entirety of Climate Action Plan commitments is not fit for purpose.

5. What other opportunities exist to support the decarbonisation of the public sector?

It is evident that the legislative basis, functions and mandates of several public bodies simply do not adequately support urgent decarbonisation and further legislative change is necessary to introduce obligations on public bodies to carry out functions in accordance with carbon budgets and prevent development of fossil fuel infrastructure.[93] To take one example, Friends of the Earth has previously highlighted that it is not clear that the CRU's regulatory functions properly respond to risks of carbon lock-in through fossil gas investments, potential stranding of fossil fuel assets or barriers to small and large-scale renewables and energy storage developments. There are also fundamental issues in the roles of GNI and the ESB. Where GNI's functions remain focused on expansion of pipeline infrastructure and where CRU's regulatory framework does not adequately respond to these challenges, it is open to question whether GNI activities and investment may serve to actively undermine state climate commitments. ESB's legal mandate would also benefit from updates in order to better align and support its current decarbonisation strategy which prioritises electrification of heat and transport.

The starting point in this regard should be to ensure that the mandates of GNI and CRU (and ESB) as detailed in Electricity Regulation Act 1999 and the Gas Act 1976, are amended. The objective of GNI to promote gas usage and network extensions should be removed and its Memorandum of Understanding amended accordingly. It is also essential that the Government ensures executive boards include members with expertise in climate science/biodiversity protection/sustainable development. Friends of the Earth has analysed the objectives and functions of these bodies and put forward detailed amendments in a 2020 research paper.

6. What practical steps should the public sector take to adapt to climate change?
7. What is your vision for the public sector in 2050 in a climate neutral Ireland?
8. Where can the most optimum investment be made by the public sector in climate

[93] See: https://www.foe.ie/assets/files/pdf/the_role_of_public_bodies_in_driving_irelands_decarbonisation_-_final.pdf

action?
9. What should be prioritised / where should actions be prioritised for the public sector to realise its climate vision?
10. What would be an appropriate level of ambition/targets/challenge for public sector climate action?

Engaged and empowered public bodies have a key role to play in the energy transition. The public sector must lead by example to demonstrate leadership, inspire innovation, stimulate supply chains, and showcase practical applications. This includes a host of practical emissions reduction actions such as retrofitting public buildings and electrifying public sector fleets, as well as embedding climate considerations in all public sector decision-making, particularly in relation to investment.

We recommend that government:

- Develop and launch a comprehensive long-term Government information campaign on climate action, impacts and opportunities.
- Local authorities in particular play a key role in the delivery of climate action. We recommend that the role and remit of the county-level energy agencies should be expanded and strengthened, and every county should have a “Climate Coordinator” that works with the local authority, PPNs and other state and societal stakeholders to facilitate climate dialogue and climate action at local level.
- Ensure that climate action is a part of the primary and secondary curriculum.
- Prohibit advertisements for fossil fuels and prohibit advertisements from companies or public bodies involved with fossil fuel production or operations.

Section 10 Just Transition
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?
2. Are there any emerging skills gaps that need to be addressed that haven’t already been identified by the Expert Group on Future Skills Needs in its Skills for Zero Carbon report?
3. 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)?
4. Are there are any emerging areas of vulnerability in specific sectors of the economy as a direct result of the implementation of Ireland’s climate action policies?
5. How should Local Authorities seek to integrate just transition considerations into the preparation of their statutory Climate Action Plans?
6. What other issues should be considered by the Government to inform just transition policy in the 2023 Climate Action Plan?
7. Should the proposed Just Transition Commission have any other functions in addition to those described above?
8. What mixtures of skills and expertise are required on the Just Transition Commission?

We support calls from the newly formed "Just Transition Alliance" of trade unions, environmental and civil society groups[94] for the immediate establishment of a national Just Transition Commission to develop an agreed blueprint for the zero-carbon transition, build public support for climate action and ensure that no worker or community is left behind. More specifically, we support their call for the following:

- Immediately establish a National Just Transition Commission, in advance of formal legislation, based on social dialogue and collective bargaining (as noted by ICTU), and comprised of representatives of government, trade unions, employers, affected communities and civil society. The Commission would be charged with developing the national framework and blueprint for Just Transition covering the entire economy, in line with the ILO Guidelines for a Just Transition. We note that there appears to be little progress towards a **national** Just Transition Plan i.e. beyond the Midlands region.
- Ensure that those sectors of the economy and those regions that are most vulnerable to change are prioritised under the Just Transition process. That said, it is important that the scope of the "Just Transition" covers all regions and communities.
- Commit to the development of a new overarching policy and strategy for the energy sector that ensures the maximum retention of key energy assets in public ownership and a leading, strategic role for the State in the development of renewable energy.
- Just transition funding should cover investment in vocational education, training, upskilling, and social protection. Grant sums should not be restricted to impacted employees and extend to seed funding for local communities.

We also support the recommendations in the recent Joint Letter on Energy Poverty signed by 42 civil society organisations.[95] This letter calls on Government to introduce specific tailored measures and supports as soon as possible that are targeted to those most affected by rising fuel costs. The letter also recommends that worst-performing buildings and low-income/energy poor households should be prioritised in national retrofitting efforts to ensure that vulnerable households are protected and that the energy transition is inclusive and fair. Specific recommendations from this letter around cost of living and energy poverty include:

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.

[94] The founding members of the Just Transition Alliance include: the Irish Congress of Trade Unions, SIPTU, Fórsa, Friends of the Earth, Stop Climate Chaos Coalition, and TASC.
[95] See: https://www.foe.ie/assets/files/pdf/joint_letter_on_energy_poverty_and_energy_pollution.pdf

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.

Section 11 Research and Innovation

In the first instance, the Government should progress recommendations of the landmark report of the 2019 Joint Oireachtas Committee on Climate Action (see section 5.4 and section 4).

The Disruptive Technologies Innovation Fund should support research into energy system transformation without fossil fuels, and technological solutions to aid communities and enterprises in scaling up local climate actions such as shared mobility and grouping retrofits/new building materials. The Fund should also be used to identify and support innovativeness in the area of energy efficiency.

1. Are the required research and innovation programmes and structures in place to support our climate ambitions; including the provision of the evidence needed to underpin policy in a timely manner?
2. Have you identified any research and innovation gaps which need to be addressed?

If so, how can these gaps best be addressed?
3. 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?
4. Is the research and innovation system developing and retaining the skills needed to deliver on our climate ambitions?

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