



Submission to the
Agriculture, Land Use, Forestry and Marine section of the
Climate Conversation - Climate Action Plan 2021

18th May 2021

1. Executive Summary

Irish agriculture is a world leader in sustainable food production and a highly emissions-efficient food production model. In dealing with the climate change challenge, it is imperative that Irish farmers' current sustainability credentials are fully acknowledged.

The Teagasc GHG Marginal Abatement Cost Curve (MACC)¹ was the building block for the AgClimitise Roadmap Towards Climate Neutrality². Agriculture is the only sector with a roadmap for reducing emissions but current scientific research indicates that reducing Irish agricultural greenhouse gas (GHG) emissions through technical means is challenging, particularly for biogenic methane.

The Climate Action and Low Carbon Development Bill proposes a target for Ireland of net zero GHG emissions by 2050, with an interim target of a 51% reduction, relative to 2018, to be achieved by 2030. According to Teagasc there is no prospect in the current decade of scientific solutions alone being capable of delivering agricultural GHG emission reductions of this magnitude (7% per annum for the 10 years to 2030)³.

The reduction target for agriculture must be significantly lower than the targets set for other sectors to recognise the economic and social importance of the sector, the technical challenges to reduce emissions as well as the timeframe required for adoption. In addition, a lower target would acknowledge the potential of the sector to offset emissions in other sector, through on farm renewables, as well opportunities to significantly enhance carbon sequestration.

Major scientific research and technological innovation in agricultural mitigation is ongoing in Ireland and globally and this will yield positive results in the coming years. Late action trajectory to meet the emission reduction targets is required to provide time for these new practices and technologies to be adopted, measured and verified.

Farmers are committed to playing their part in reducing GHG emissions. Already, they have made significant investments to improve efficiency and reduce emissions. Progress on enhancing carbon sequestration has been thwarted by Government policy, which actively disincentivise afforestation and management of farm scale forestry.

It does not make economic or environmental sense to displace food production in Ireland that has a proven track record of carbon efficient production to countries with higher emission food production systems, as this will result in substantial carbon leakage.

Given the likely impacts of climate change on the world's poor and vulnerable communities, we cannot afford to approach agriculture with a silo mentality. Carbon leakage, food security and farmers' livelihoods must be fully integrated into the climate mitigation plan.

To properly address climate change, it is important that policy accurately reflects the different global warming impact associated with biogenic methane, and provides farmers with fair and reasonable means to manage emissions and reduce the impact on the environment. The climate effect of biogenic methane is important, but very different from that of CO₂.

¹ Teagasc (2019). *An Analysis of Abatement Potential of GHG Emissions in Irish Agriculture 2021-2030*.

² Department of Agriculture, Food and Marine (2020). *AgClimitise – A Roadmap Towards Climate Neutrality*.

³ Teagasc (2021). *The Climate Action and Low Carbon Development Bill – implications for agriculture*. Statement to the Joint Oireachtas Committee on Agriculture and the Marine.

A key barrier to meeting the climate action targets is the financial vulnerability of many farms. To support the sector to deliver on climate action it will be necessary to develop new direct incentives outside of CAP to support the adoption of mitigation measures. The Programme for Government commitment to provide €1.5 billion for the development of agri-environment schemes must be honoured. In addition, targeted support through the Just Transition Fund and development of new Carbon Farming schemes are required.

It is crucial that all mitigation measures adopted at farm level, be it changes in farm practices and/or adoption of new innovative systems, and the subsequent emission reductions achieved are fully captured in the National GHG Inventory and satisfy the IPCC Guidelines for National GHG Inventories.

There are significant opportunities for diversification in the agricultural sector that will support the transition to a low carbon economy. To achieve diversification farmers, farm families and rural communities must be supported through advisory services, training and mentoring programmes as well as appropriate grant support.

Farm and community scale renewable energy generation offers the opportunity to not just meet renewable targets but contribute to sustainable economic growth. It is vital that farmers and communities are supported and that barriers to adoption are removed, so they can be central to Ireland's future energy generation.

The Teagasc MACC estimates that the agricultural sector could sequester 26.8 million tonnes CO₂e over the 2021-2030 period through afforestation, the management of peaty agricultural soils as well as optimal grassland and cropland management. It is crucial that the carbon sequestration potential of the sector is included in the carbon budgets and that farmers are incentivised to enhance carbon storage through carbon farming schemes.

2. Introduction

The Irish Farmers Association is Ireland's largest farming organisation with approximately 71,000 members in 940 branches nationwide. We welcome the opportunity to make a submission to the Climate Conversation - Climate Action Plan 2021.

As we start the climate conversation, it is important to ground the conversation in Article 2 of the United Nations Framework Convention on Climate Change which states that the ultimate objective is the "*....stabilisation of GHG concentrations.....should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner*".

Irish farming is a world leader in grass-based food production and is a highly emissions-efficient, sustainable food production model⁴. Maintaining a sustainable and competitive agriculture sector, while meeting the target of a climate neutrality economy by 2050 must be the objective of the Climate Action Plan.

Climate change is arguably the greatest environmental challenge facing the world and farmers are on the frontline. Farmers are committed to playing their part in reducing GHG emissions.

The Climate Action and Low Carbon Development Bill proposes a target for Ireland of net zero GHG emissions by 2050, with an interim target of a 51% reduction, relative to 2018, to be achieved by

⁴ KPMG (2020) Sustainability 2050 How to meet our 2050 sustainability targets while feeding 10bn people. Retrieved from: <https://assets.kpmg/content/dam/kpmg/ie/pdf/2020/05/ie-agribusiness-report-2020.pdf>.

2030. According to Teagasc there is no prospect in the current decade of scientific solutions alone being capable of delivering agricultural GHG emission reductions of this magnitude (7% per annum for the 10 years to 2030)⁵. In the short term, major reductions in agricultural GHG emissions, would require a substantial reduction in the amount of agricultural activity in Ireland and further undermine the viability of Irish farming.

The reduction target for the agriculture must be significantly lower than the national target to recognise the economic and social importance of the sector, the technical challenges to reduce emissions as well as the timeframe required for adoption. In addition, a lower target would acknowledge the potential of the sector to offset emissions in other sectors through on farm renewables, as well as the opportunities to significantly enhance carbon sequestration.

Major scientific research and technological innovation on agricultural mitigation is ongoing in Ireland and globally that will yield positive results in the coming years. A late action pathway to reduce emission and meet the targets is required to provide time for these new practices and technologies to be adopted, measured and verified.

Climate change is arguably the greatest environmental challenge facing the world and farmers are on the frontline. Farmers are committed to playing their part in reducing GHG emissions. Already, they have made significant investments to improve efficiency and reduce emissions and with appropriate supports can continue to innovate and adapt in the transition to a climate neutral economy.

3. Context

Currently agricultural emissions contribute to a third of total Irish GHG emissions. This reflects the relative importance of agriculture to Ireland's economy, and the lack of heavy industry in comparison to other member states.

Agricultural GHG emissions are predominately methane (from enteric fermentation and manure management) and nitrous oxide (from fertiliser and animal excreta deposition on soils). Conversely, the agriculture sector is the only sector with the ability to significantly sequester carbon from the atmosphere and offset emissions.

Since 1990, Irish farms combined have increased their output by approximately 40%. Despite this increase in production total agricultural emissions by the sector have remained static with 19.5 mega tonnes CO₂e from the sector in 1990 and 19.9 mega tonnes CO₂e in 2018 an annual change of only 1.9%.⁶

⁵ Teagasc (2021). *The Climate Action and Low Carbon Development Bill – implications for agriculture*. Statement to the Joint Oireachtas Committee on Agriculture and the Marine. Retrieved from: https://data.oireachtas.ie/ie/oireachtas/committee/dail/33/joint_committee_on_agriculture_and_the_marine/submissions/2021/2021-04-14_opening-statement-professor-gerry-boyle-director-teagasc_en.pdf

⁶ EPA (2020). *Ireland's National Inventory Report 2020 GHG Emissions 1990-2018*. Retrieved from: <http://www.epa.ie/pubs/reports/air/airemissions/ghg/nir2020/>.

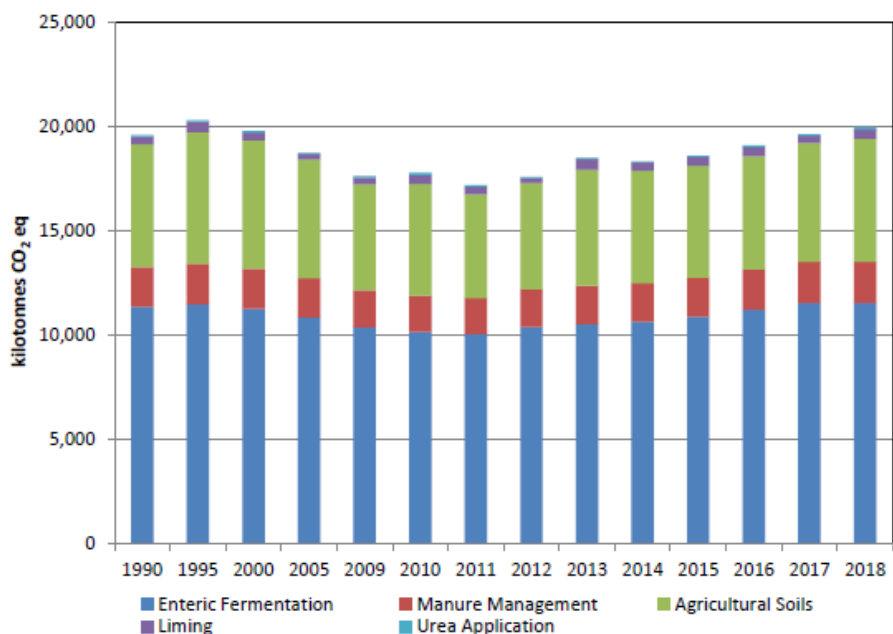


Figure 1. Total Emissions from Agriculture by Sector, 1990-2018 (EPA 2020).

Agricultural emissions, as a percentage of total emissions, have also remained static since 1990. In the same period, emissions from transport have more than doubled from 9% to 19%. In addition, agricultural emissions actually reduced by 3.9% in 2019 due to a reduction in fertiliser use and increase in the use of protected urea, in spite of an increase in dairy cow numbers.⁷

Farming and the wider agri-food sector are the backbone of economic activity in rural Ireland, and is Ireland's largest indigenous sector, providing employment to over 300,000 people directly and indirectly.

Economic activity derived from farming has a substantial positive spin-off impact on the Irish economy, in particular in rural areas. A recent research study outlined that a €1 million increase in the beef sector output generates a further €2.11 million in the wider economy and supports an additional 16 jobs.⁸

The continued importance of agriculture to the rural economy is acknowledged in the recently published Future Rural Development Policy 2021-2025⁹ which recognises that agriculture will remain a key contributor to the economy, a significant source of income and a source of direct and indirect employment in rural areas.

Irish agriculture is dominated by family-owned farms. There are almost 140,000 farms, with an average land holding of 32.5 hectares. The Teagasc National Farm Survey showed that the average income across all farming systems, in 2019, was €23,934 with only 34% of farms deemed to be economically viable¹⁰.

⁷ EPA (2021). *Agriculture: Environmental Protection Agency, Ireland*. Retrieved from: <https://www.epa.ie/ghg/agriculture/>.

⁸ Hennessy (2018) *The Economic and Societal Importance of the Irish Suckler Beef Sector*. Retrieved from: <https://www.ifa.ie/wp-content/uploads/2020/08/2018-The-Economic-and-Societal-Importance-of-the-Irish-Suckler-Beef-Sector-Aug-2018.pdf>

⁹ Department of Rural and Community Development (2021). *Our Rural Future - Rural Development Policy 2021-2025*. Retrieved from: <https://www.gov.ie/en/publication/4c236-our-rural-future-vision-and-policy-context/>

¹⁰ Teagasc (2020). *National Farm Survey 2019*. Retrieved from: <https://www.teagasc.ie/media/website/publications/2020/Teagasc-National-Farm-Survey-2019.pdf>

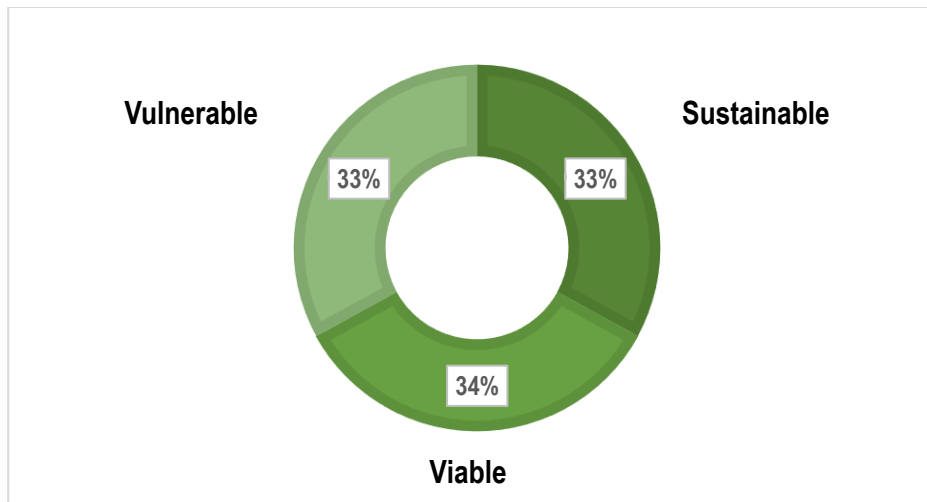


Figure 2. Viability of Irish Farming (sourced from Teagasc Farm Survey 2019)

The Irish farming system gives us a comparative advantage as it is predominantly a pasture-based system thanks to our temperate climate, this allows for rich green grass growth for 9 to 10 months of the year providing a carbon efficient production system. The average dairy herd size in Ireland is 80 cows¹¹ this is low in scale compared with herd sizes in other countries such as the Netherlands 101, New Zealand 435 and USA 273.

Agricultural output is dominated by dairy and livestock, especially beef. Dairy and beef account for two-thirds of gross agricultural output and similar proportions of agri-food exports. Despite wider economic challenges, exports from the agri-food sector were €14.5 billion in 2019.¹²

4. Food Security

According to the United Nations the world's population is projected to grow from 7.7 billion in 2017 to 8.5 billion in 2030 (10% increase) to 9.7 billion in 2050 (26% increase).¹³ This growth will drive global food demand, which is expected to increase anywhere between 59% to 98% by 2050.¹⁴ It is projected that 58% more milk and 73% more meat will be required by 2050 compared with 2010 consumption levels.¹⁵

¹¹ Teagasc (2020). *National Farm Survey 2019*. Retrieved from: <https://www.teagasc.ie/media/website/publications/2020/Teagasc-National-Farm-Survey-2019.pdf>.

¹² Bord Bia (2019). *Bord Bia's Export Performance and Prospects report 2019/2020*. Retrieved from: <https://www.bordbia.ie/industry/insights/publications/performance-prospects->

¹³ United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019: Highlights*. ST/ESA/SER.A/423. Retrieved from: https://population.un.org/wpp/Publications/Files/WPP2019_Highlights.pdf

¹⁴ Valin et al. (2013). *The future of food demand: understanding differences in global economic models*. Retrieved from: <https://onlinelibrary.wiley.com/doi/abs/10.1111/agec.12089>

¹⁵ FAO (2011). *World Livestock 2011 – Livestock in Food Security*. Retrieved from: <http://www.fao.org/3/i2373e/i2373e.pdf>

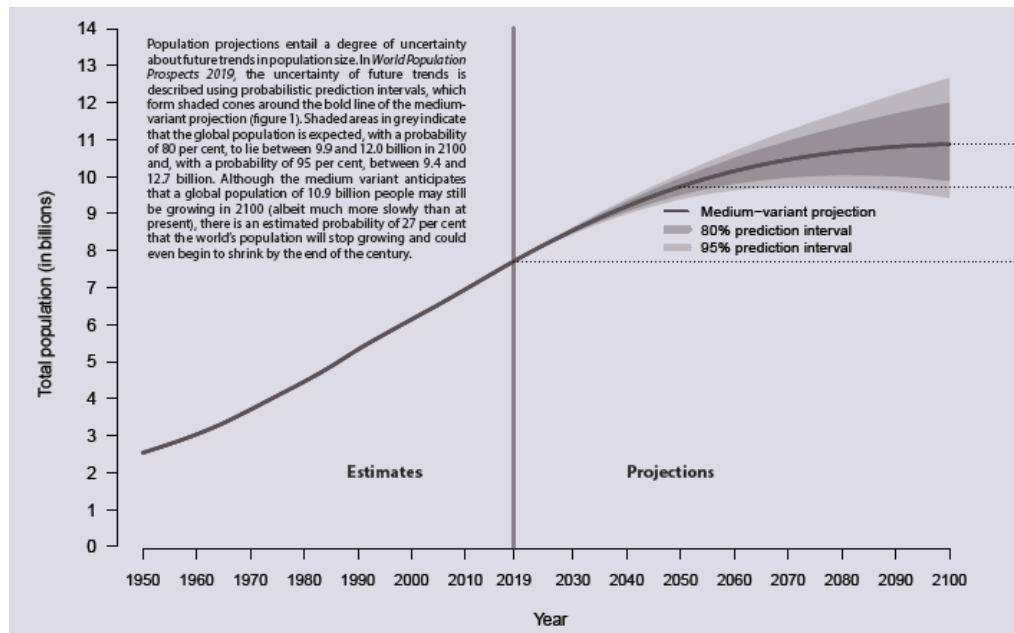


Figure 3. UN World population estimates and projections 2019

The Green Deal's Farm to Fork and Biodiversity strategies are the cornerstone of the EU's climate action policy for agriculture. They represent a fundamental shift for the EU food and agriculture industry, as well as international agricultural trade as the EU is a major producer and participant. The only economic and food security analysis of these strategies has been undertaken by the United States Department of Agriculture.

The report estimates a 12% decline in agricultural production if the strategies were adopted within the EU. The decline in food production would tighten the EU food supply, and would increase the number of people exposed to food insecurity (i.e., people who lack access to at least 2,100 calories per day) by an additional 22 million by 2030 if only adopted in the EU, if similar strategies were adopted globally this number would increase to 185 million people.

It is IFA's view that an economic and food security assessment at national and EU level is required to determine the impact of the Green Deal's Farm to Fork and Biodiversity strategies on food production. It is vital that we understand the effects of these strategies, that we take a human-centre approach, to safeguard the rights of the most vulnerable people to ensure impacts are fair and equitable.

5. Carbon Leakage

In light of the increasing demand on food due to projected population growth, any contraction of food production in Ireland to meet the emissions ceiling may simply displace production elsewhere, potentially to countries with a higher carbon footprint, resulting in higher overall global emissions. An unintended consequence of our climate policy could result in substantial carbon leakage.

Irish farming is a highly emissions-efficient food production model and a world leader in sustainable food production. Research has shown that Ireland's dairy farms have the lowest carbon footprint in Europe, while our beef farms are in the five lowest in terms of their carbon footprint¹⁶. In addition,

¹⁶ Teagasc (2019) *Agriculture and climate change* Retrieved from: https://www.teagasc.ie/media/website/publications/2019/TRResearch_Winter2019_AgriAndClimateChange_Web.pdf

over 212,000 carbon assessments¹⁷ have been completed on farms as part of Bord Bia's Origin Green programme.

In Ireland emissions from beef production vary from 18.9 – 21.1 kg CO₂-e kg beef¹⁸ while Brazilian emissions are more than 30 kg CO₂-e kg beef.¹⁹ The potential shift of 50% of current Irish beef exports to production in South America would result in a net increase of global emissions by 3.6 Mt CO₂eq per annum, this is equivalent to 20% of total current Irish agricultural emissions.⁶

Temperate grass-based dairy systems such as those we have in Ireland emit less than half the amount of GHG emissions as tropical grassland dairy systems (e.g., Latin America and South-East Asia) or arid grassland dairy systems. The carbon footprint of Irish milk is 74% more carbon efficient than milk produced in India and 42% more carbon efficient than Chinese milk.²⁰ Leakage of dairy production from Ireland to these regions would increase the emissions associated with the same volume of product.

Since 1990, it is estimated that 420 million ha of forest has been lost worldwide through deforestation. South America had the second-highest average annual rate of net forest loss with approx. 19 million hectares deforested since 1990²¹. The regional trend mostly reflects changes in Brazil, where cattle ranching is the leading cause of deforestation in the Amazon rainforest accounting for 63% of the deforestation.

The Climate Action Plan must recognise the emission efficiency of our beef and dairy systems and focus measures to further improve resource efficiencies, adoption of new technologies and innovative practices to reduce emissions rather than reducing output to meet climate objectives.

It is IFA's view that displacing production in Ireland with our competitive and environmental advantage, due to our climate and extended grazing season, would only further undermine food security, resulting in substantial carbon leakage and damage to the viability of our family farm model of farming.

6. Biogenic Methane

The recognition that biogenic methane is different from other GHGs because of its biological origin and its relatively short life span in the atmosphere is welcomed.

Biogenic methane effect on the climate is important, but very different from that of CO₂. To properly address climate change and to create fair and accurate climate change policy it is important that biogenic methane is treated differently than other GHGs such as CO₂. As once in equilibrium, it can continue to be emitted at a stable rate without increasing its concentration in the atmosphere.

Research has shown that the treatment of all GHGs as CO₂-equivalent misrepresents the impact of short-lived climate pollutants, such as methane, on future warming.²² Under the GWP100 (global

¹⁷ Bord Bia (2020) Origin Green Project Update Report. Retrieved from: <https://www.origingreen.ie/globalassets/origin-green/og-publications/origin-green-progress-update-report-lr.pdf>

¹⁸ Teagasc (2011). *Irish Agriculture, GHG Emissions and Climate Change: opportunities, obstacles and proposed solutions*. Retrieved from: https://www.teagasc.ie/media/website/publications/2011/61_ClimateBillSubmission.pdf

¹⁹ Sonesson et al. (2009). *GHG Emissions in Animal Feed Production*. Klimatmärkning för mat, Svenskt Sigill, Stockholm, Sweden. Retrieved from: <https://www.klimatmarkningen.se/wp-content/uploads/2009/12/2009-2-feed.pdf>

²⁰ Mazzetto et al. (2021). *Mapping the carbon footprint of milk for dairy cows*. Retrieved from: <https://www.dairynz.co.nz/media/5794083/mapping-the-carbon-footprint-of-milk-for-dairy-cows-report-updated.pdf>

²¹ FAO (2020). *Global Forest Resources Assessment 2020*. Retrieved from: <http://www.fao.org/documents/card/en/c/ca9825en>

²² Allen, M.R. et al. (2018). A solution to the misrepresentations of CO₂-equivalent emissions of short-lived climate pollutants under ambitious mitigation. *npj Clim Atmos Sci* 1, 16 (2018). Retrieved from: <https://doi.org/10.1038/s41612-018-0026-8>.

warming potential over 100 years) system currently used in national inventories, it is assumed that methane has a warming effect that is 28 times that of CO₂ over 100 years.

GWP* is a newly proposed metric to account for the short life span and biological origin of biogenic methane. Under GWP*, there is a much higher warming effect but this effect is over a shorter period. In simple terms, the principle is that because methane has a short lifespan of approximately 12-15 years, if emissions remain stable (i.e., a stable national bovine herd), atmospheric concentrations remain stable and there is little additional warming effect caused by the current emissions. This is currently much international scientific discussion on assessing and accurately measuring the impact of biogenic methane.

Implementing a policy that better reflects the actual impact of different pollutants on global temperatures would give agriculture a fair and reasonable way to manage their emissions and reduce their impact on the environment. The Paris Agreement itself requires parties to “*promote environmental integrity, transparency, accuracy, completeness, comparability and consistency*” in their nationally determined contributions.

IFA advocates for separate target for biogenic methane within the national targets in recognition of its potentially lower impact global warming of biogenic methane.

7. Funding Transition

The agricultural sector is one of the most climate vulnerable sectors in respect of flooding, drought and disease but is also one of the most financially vulnerable in the discussion around climate mitigation. To enable the agriculture sector to deliver on climate action and contribute to the European Green Deal, it is necessary to create direct incentives for the adoption of mitigation measures.

The key barriers to the uptake of agricultural mitigation measures by farmers are investment and cost barriers including upfront investment costs, maintenance costs and opportunity costs such as land and labour allocated to mitigation practices. There are also risk costs associated with agricultural mitigation in terms of the uncertainty of likely benefits to farm income.

The direction of the reform of the Common Agricultural Policy (CAP) has the potential to impact farm viability in Ireland through the possible funding of eco schemes and the application of more environmental restrictions.

It is IFA’s view that direct payments under CAP, which were originally developed to support food production and farm incomes, should continue to meet these objectives. Separate funding options need to be established to support the additional societal and environmental asks to meet the emission targets.

7.1. Carbon Tax.

The 2020 Programme for Government gave a commitment to provide €1.5 billion, generated from carbon tax receipts, to fund a REPS-2 agri-environmental programmes over the 2021-2030 period. They also committed that this fund would be additional to existing CAP funding.

It is crucial that none of this funding is diverted to meet the Irish Government’s co-financing requirements under the next CAP programme. This fund must be ring-fenced to support farmers to undertake mitigation actions, which have already been identified in the Teagasc MACC, to improve resource efficiency and reduce emissions.

The Programme for Government must ring-fence €1.5 billion of the carbon tax revenue to fund an environmental programme, outside of CAP, to support farmers transition and deliver on climate action.

7.2. Just Transition Fund

The Just Transition Fund was established to provide financial support to help those that are most affected by the move towards the climate neutral economy. As previously outlined rural Ireland is the agricultural sector and measures to limit its growth could leave already marginalised communities in an increasingly vulnerable position.

Just Transition could support farmers to identify opportunities and develop alternative income streams by supporting farmers to upskill, to diversity into organics or on-farm renewables or develop value added short supply chains.

A significant proportion of the €77 million over the period 2021-2027 should be targeted to support agriculture transitional and enable farmers to take advantage of the opportunities that are created in a transitioning economy.

7.3. Carbon Farming

The recently published European Commission report showed that result-based carbon farming can contribute significantly in the EU's efforts to tackle climate change, bringing benefits in terms of carbon sequestration and storage while offering new income opportunities for farmers.

Carbon farming schemes could provide an alternative income for farmers, while supporting the implementation of other agricultural mitigation measures through rewarding better farming practice. It has the potential to become a win-win with farmers benefiting from increased carbon sequestration however the success of a future carbon farming scheme in Ireland is completely dependent on the level of commitment from the government.

A carbon farming scheme must be introduced to support farmers by paying farmers for taking actions that mitigate GHG and/or increase carbon storage.

8. Agricultural Mitigation

Achieving emissions reductions will be challenging for agriculture and is more complex than mitigation in other sectors. Agricultural mitigation involves the reduction of GHG which are produced naturally as part of biological processes, thereby limiting the emission reduction options.

Agriculture is also less consolidated than other sectors and reducing emissions requires action by approximately 140,000 farm families. It is vital that the policies introduced recognise the scale, fragmentation, age-structure and financial vulnerability of the sector.

The single biggest barrier to meeting the climate action targets is the financial vulnerability of many farms. Financial vulnerability has a large impact on the ability of farmers to adopt more sustainable practices as it limits their ability to test new practices and stifles innovation due to financial constraints.

The economic sustainability of farms must not be further undermined to meet the emission reduction targets. The Teagasc MACC²³ report identified incentives and training as key enablers to encourage and support farmers to change practices and uptake mitigation measures.

²³ Teagasc (2019). *An Analysis of Abatement Potential of GHG Emissions in Irish Agriculture 2021-2030*. Retrieved from: <https://www.teagasc.ie/media/website/publications/2018/An-Analysis-of-Abatement-Potential-of-Greenhouse-Gas-Emissions-in-Irish-Agriculture-2021-2030.pdf>

The Teagasc MACC quantified the opportunities for abatement of agricultural GHGs, as well as associated costs and benefits associated with each measure, this research formed the building block for the AgClimate roadmap. It provided a clear roadmap for the sector to reduce emissions, which is focussed on number of identified measures including: better farm management, farm system transformation, diet manipulation, breeding management as well as innovative methane-reducing technologies and improved animal waste treatment.

Already farmers have implemented measures set out in the report; they have invested over €80 million on Low Emission Slurry Spreading (LESS) equipment, while sales of protected urea have more than doubled in the past year, with nearly 50,000 tonnes sold in 2020.

Ireland's mitigation strategy must focus on reducing emissions per unit of milk or beef, to produce food as efficiently as possible.

Further emission reductions can be achieved through improved utilisation of organic agricultural waste and residue streams to produce biogas, bio-materials and bio-chemicals and must also be a key component to reduce methane emissions. The collection and utilisation of these by-products must be incentivised as they will improve the resilience of our farming systems and can generate additional revenue streams for farmers.

Pursuing a more sustainable production system requires farmers further embrace new practices, adopt new technologies with no guarantee of immediate success. Studies have shown that farmers on average experience decreased yields during a transition process, as they gain the required experience to learn and perfect the implementation of more regenerative and sustainable practices. A decrease in production poses a difficult financial challenge to overcome – especially for Irish farmers where only 34% of farms are considered to be financially viable²⁴.

A key concern for the sector is that the impact of changes in farm practices and adoption of new innovative systems on emission reductions are fully captured in the National GHG Inventory. It is vital that the key parameters of emission factors are reviewed and updated so actions can be accurately measured and verified.

It is IFA's view that:

- (i) Additional funding must be made available to create an enabling environment for change and support farmers to implement new farming practices and invest in mitigation technologies.***
- (ii) A dedicated programme such as Agricultural Sustainability Support and Advisory Programme (ASSAP) that works collaboratively with farmers at farm level is introduced to support change.***
- (iii) All measures to reduce emissions are accurately measured and credited.***
- (iv) Comprehensive research is needed to explore proven and reliable mitigation technologies that would be practically feasible and economically viable while improving ruminant production.***

²⁴ Teagasc (2020). *National Farm Survey 2019*. Retrieved from: <https://www.teagasc.ie/media/website/publications/2020/Teagasc-National-Farm-Survey-2019.pdf>.

9. Farm Diversification Opportunities

Studies have shown that farm-level diversification is strongly motivated by economics, and particularly the desire to realise greater economic value from products that are undervalued in conventional food systems²⁵. In addition, the intention to establish a diversified farm enterprise is influenced by a farmer personally knowing another farmer who has recently diversified²⁶.

The cornerstone of any attempts to encourage more farmers to explore diversification activity appears to be the building of a culture of entrepreneurialism among farm households and not just farmers. This could involve further mainstreaming of diversification into farmer education programs, peer-to-peer mentoring, funding of training as well as appropriate grant support to enable diversification.

A significant proportion of the Just Transition Fund should be targeted to support agriculture's transition and support farmers considering diversification.

9.1. Organics

Just 2.6% of Ireland's agricultural area is under organic production, compared to an EU average of 7.5%. The EU Green Deal's Farm to Fork and Biodiversity strategies both rightly see organic production as having an important positive role to play in improving the environmental and climate sustainability of European agriculture.

Organic farmers in Ireland are keen to increase production in response to market opportunities and consumer demand. However, the target of 25% of EU agricultural area under organic production by 2030, when the current average is only 7.5%, is extremely ambitious.

Organic production systems have many positive environmental benefits, but they are associated with lower yields and higher costs, which need to be offset by higher market prices based on strong demand. Research²⁷ has shown yield gaps of around 20% between lower productivity in organic farms and their conventional equivalents.

It is crucial to maintain the balance between the supply and demand of organic produce, in order to maintain the economic viability of organic farmers by minimising pressures on the farm gate price.

IFA is of the view that:

- ***Continued financial support is required to help farmers cope with the conversion period, but also to offset some of the volatility of yields and incomes.***
- ***The domestic and export markets for high quality Irish organic produce are further developed to ensure producers can have confidence that by converting or growing their organic farm enterprise they will have access to premium paying markets.***
- ***Continued support is available to farmers to address the productivity yield gaps, higher input costs and labour, lack of production research, support and advice, which have been identified as barriers to adoption.***

²⁵ Moroney, A et al. (2016). *Taking the leap and sustaining the journey: Diversification on the Irish family farm*. Journal of Agriculture, Food Systems, and Community Development, 6(4), 103–123. Retrieved from: <http://dx.doi.org/10.5304/jafscd.2016.064.004>.

²⁶ Teagasc (2015). *Attitudes to Farm Diversification*. Retrieved from: https://www.teagasc.ie/media/website/publications/2013/5912_Farm_Diversification_Technology_Update_Final_.pdf

²⁷ Agricultural Systems (2012). *The crop yield gap between organic and conventional agriculture*. Volume 108, Pages 1-9. Retrieved from: <https://www.sciencedirect.com/science/article/pii/S0308521X1100182X>.

9.2. Forestry

Ireland's forest cover is just over 11% of the land area (approx. 770,000ha), compared with an EU average of 40%²⁸. This is the lowest forest cover in the EU despite our strong competitive advantage in growing timber, with growth rates of certain tree species more than double those achieved in other European countries.

Forests, products and people, Ireland's forest policy – a renewed vision²⁹ set out the strategic goal to increase forest cover to 18% to provide for a long-term sustainable timber supply.

Despite the potential of the sector and the ambitious targets to increase forest cover, the afforestation

programme has been in continual decline in recent years, with only 2,500ha planted in 2020, just 30% of the 8,000ha annual afforestation target set out in the 2019 Climate Action Plan. The 2021 afforestation programme is expected to fall further.

Farmers are disengaging from forestry as a viable land use option, due to the excessive bureaucracy, ineffective administration and spiralling costs associated with planting and managing forests.

The forest licence system is in crisis and cannot support the vision of the Climate Action Plan. It is too onerous and cost prohibitive to support afforestation at farm level and is a major barrier to management, particularly for small farm forests.

IFA is of the view that:

- ***The current regulatory system is not fit for purpose and needs to be reformed to support afforestation and management on farms. A simplified system, based on sustainable management plans, similar to those operated elsewhere in Europe should be introduced.***
- ***The replanting obligation has been highlighted in repeated policy reviews by farmers as one of the main barriers to afforestation, this needs to be relaxed.***
- ***Re-introduction of farmer premium differential to address the increased community opposition to forestry.***
- ***Increase support for Forest Producer Organisations that will be central to mobilisation and certification of the private forest estate.***

9.3. Renewable energy

Ireland is one of the most energy import dependent countries in the EU, despite improvements in recent years, Ireland imported 67% of its total energy requirements in 2018. Oil makes up the largest share of energy imports accounting for 73% of total energy imports in 2018, natural gas 17%, coal 8.2% and renewables 1.4%.³⁰

The energy sector must undergo a massive transformation if the emissions reduction targets are to be achieved. In combination with energy efficiency, adoption of renewable technologies will provide significant decarbonisation in the sector.

In 2018 the energy sector accounted for nearly 59% of GHG emission, with transport responsible for the largest share of energy-related CO₂ emissions at 40%, followed by heat at 33%. The

²⁸ Teagasc (2021) *History of Forestry in Ireland*. Retrieved from: <https://www.teagasc.ie/crops/forestry/advice/general-topics/history-of-forestry-in-ireland/>

²⁹ Department of Agriculture, Food and the Marine (2021). *Forests, Products and People - Ireland's Forest Policy, a Renewed Vision*.

³⁰ SEAI (2020). *Energy Security in Ireland*. Retrieved from: <https://www.seai.ie/publications/Energy-Security-in-Ireland-2020-.pdf>

emissions from transport increase by 24% since 2012. Transport remains almost entirely dependent on fossil fuels.

Ireland's adoption of renewable technologies at farm level is well below the European average. In 2018, Ireland ranked 23rd out of the EU-27 countries for renewable energy from agriculture, producing just 2.6% compared with the EU-27 average of 12.1%.

Farmers want to be central players in Ireland's energy transition. They recognise the opportunities offered by renewable energy to produce energy for their own use but also to diversify their farm income by selling excess energy to the grid and enhancing the sustainability of their farm business.

The Teagasc MACC report has identified that almost two mega tonnes of CO₂ can be reduced by displacing fossil fuel use in the sector, in areas such as energy efficiency, bioenergy and biofuels.

Bioenergy is a thriving industry across Europe, however despite our natural advantage in producing bioenergy due to our mild climate and fertile land, Ireland is ranked 27th out of 28 Member States in terms of its use of renewable heat (SEAI). Ireland currently derives 4% of its energy from bioenergy. This needs to rise to 15% by 2030 with further deployment beyond if 2050 targets are to be met.

Bioenergy, particularly biogas, can help the circular economy and reduce the environmental impact of the agricultural sector. The environmental and climate benefits of biogas are wide ranging, together with reduction in emissions and increased energy security, it allows for the exploitation of agriculture by-products. Furthermore, the by-product of anaerobic digestion (i.e., digestate) can be used as an organic fertiliser. Finally, biogas is the only full dispatchable renewable energy that can assist in addressing our electricity, heat and transport renewable energy targets.

It is IFA's view that farmers are ideally placed to contribute to Ireland's transition to a climate neutral economy. Farm and community scale renewable energy generation offer opportunities to not just meet renewable targets but contribute to sustainable economic growth. It is vital that farmers and communities are supported and that barriers are removed, so they can be central to Ireland's future energy generation.

It is IFA's view that:

- ***An Agri-Renewables Strategy needs to be developed for Ireland to provide a roadmap that supports the uptake of renewable energy and addresses barriers which constrain uptake of on-farm and community renewables.***
- ***The RESS (Renewable Energy Support Scheme) should be expanded to cater for the development of farm scale and community-based projects. The expansion of the scheme would allow farmers to diversify and develop a separate source of income that would support the energy sector meet its targets.***
- ***The scope of the proposed Microgeneration Support Scheme needs to be widened to make farm and community-based microgeneration projects viable. To support farm and community-based microgeneration projects; introduce a capital grant in combination with Clean Export Guarantee (CEG), zero cost access and use of the grid for microgeneration installations under 50kW, remove self-consumption limit and Building Energy Rating (BER) rating requirement and streamline application process (see Appendix 1).***

- **Increased financial resources need to be allocated to fully implement the Support Scheme for Renewable Heat (SSRH) to expand the timescale, size and scope of the support scheme.**
- **Biogas Support Scheme should be introduced to support both farm scale and medium to large scale cooperative style biogas plants to be implemented on a phased basis.**

10. Carbon sequestration

Agriculture is unique in its ability to remove carbon from the atmosphere by carbon sequestration through enhancing carbon sinks and reducing carbon losses reducing the overall sectoral emissions.

The strategy set out in the Teagasc MACC estimates that the agricultural sector could sequester 26.8 million tonnes CO₂e over the 2021-2030 period, through afforestation, management and enhancement of hedgerows, the management of peaty agricultural soils as well as optimal grassland and cropland management on mineral soils.

Ireland has the highest percentage of permanent grassland in the EU (90% compared to an EU average of 31%)³¹ and the third largest total hedgerow area in the EU with an estimated 450,000 hectares or 6.4% of the land area³². Peatlands cover 16.2% of Ireland, with approximately 7% or 80,000 hectares owned by Bord na Móna.³³

The National Forest Inventory³⁴ estimates that Ireland's forests have sequestered on average 3.8 million tonnes of CO₂ equivalent per year (approximately 5 tonnes of CO₂ per hectare per year) from the atmosphere over the period 2007 to 2016 based on a total national forest estate of 770,020 ha.

Teagasc research shows that grassland soils currently sequester approximately 440 tonnes CO₂/ha or an estimated 1,800 million tonnes CO₂ across all Irish mineral soils. National GHG emissions are about 60 million tonnes per year; accordingly, our mineral soils store about 30 years' worth of emissions.³⁵

A major disadvantage for the sector is that currently there is no measurement, reporting and verification (MRV) strategy for carbon sequestration in Irish grassland or peat soils. The establishment of National Agricultural Soil Carbon Observatory, which was announced in November 2020, will commence intensive monitoring of carbon emissions and removals across a range of Irish soils. However, it will be a number of years before evidence-based measurement, reporting and verification of carbon sequestration can be achieved.

Within the United Nations Framework Convention on Climate Change (UNFCCC), Articles 3.3 and 3.4 of the Kyoto Protocol stipulate that soils can be counted as atmospheric carbon sinks in national GHG inventories, in an effort to meet the targets for the reduction of GHG emissions. However, the potential to offset emissions will only be acknowledged when Ireland can verify carbon sequestration. The work of NASCO will be vital in providing evidence-based measurement, reporting and verification so that the carbon sequestered can be properly accounted.

³¹ Context Indicator (2018). *Indicators in the rural development report 2011*. Retrieved from: https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/farming/documents/cap-context-indicators-table_2019_en.pdf.

³² Forest Statistics Ireland (2020). *Annual Forest Sector Statistics*. Retrieved from: <https://www.gov.ie/en/collection/15b56-forest-statistics-and-mapping/#annual-forest-sector-statistics>.

³³ Bord na Mona (2021) *The Peatlands of Ireland*. Retrieved from: <https://www.bordnamonalivinghistory.ie/article-detail/the-peatlands-of-ireland/>

³⁴ Department of Agriculture, Food and the Marine (2020). *Ireland's National Forest Inventory*. Retrieved from: <https://www.gov.ie/en/publication/65294-irelands-national-forest-inventory/>.

³⁵ Teagasc (2020). *Enhancing soil carbon sequestration to contribute to carbon neutrality on Irish farms*. Retrieved from: <https://www.teagasc.ie/publications/2020/enhancing-soil-carbon-sequestration-to-contribute-to-carbon-neutrality-on-irish-farms.php#:~:text=Enhancing%20soil%20carbon%20sequestration%20to%20contribute%20to%20carbon%20neutrality%20on%20Irish%20farms,-14%20June%202020&text=Carbon%20stored%20in%20soils%20is,in%20plant%20material%20or%20soil.>

In the interim, while the work of the NASCO is ongoing, a carbon farming scheme should be introduced to encourage farmers to enhance carbon storage. Carbon farming is being viewed by policymakers as an option to incentivise farmers to contribute to climate mitigation and deliver on the EU's ambition for obtaining climate neutrality by 2050.

In the past agriculture research, policy and advice has urged farmers to drain soils to improve farm productivity. Approximately 8% of the total grassland area (330,000 hectares) are drained grassland on peat soils.³⁶ Due to the level of investment undertaken by farmers to drain soils, any scheme to incentivise farmers to increase carbon storage must be voluntary, cover all costs and reward them for the carbon sequestered.

It is vital that both the carbon budget and the Climate Action Plan recognise the considerable potential of the sector to sequester carbon. That this potential is acknowledged in the sectoral targets and late action pathway is implemented to allow that time is provided for the collection of data and its validation.

11. Marine

The Programme for Government gives recognition for the enormous 'blue carbon' potential that the ocean has to offer in tackling climate change but appreciates that further scientific research is needed to understand and develop this potential.

Significant funding and resources need to be made available to establish the baseline studies required to assess the 'blue carbon' potential. Additionally, projects such as BIM Natural Capital project, Hatch aquaculture innovation Hub, as well as meeting targets set as part of regulatory framework such as Marine Strategy Framework Directive will be key to developing the role of the marine environment in climate mitigation.

The role of the aquaculture industry as a carbon efficient source of sustainable protein must be recognised. Aquaculture also contributes to the control of nitrogen/phosphorous removal shellfish are filter feeders which aids to reduce eutrophication of waters. There is now a significant opportunity for aquaculture in light of the increasing global demand for seafood, more sustainable food sources, and carbon efficient food production. These growing demands along with the 'EU Green Deal', provide a real opportunity for the aquaculture sector to position itself as part of the solution to these growing demands and must be acknowledged in the Climate Action Plan.

The SEMRU report 'Valuing Ireland's Blue Ecosystem Services' outlines that appropriate recognition must be given to the aquaculture and its contribution to marine ecosystem services which make a substantial contribution to welfare, health and economic activities every year. Fisheries & aquaculture is worth an estimated €526 million in terms of output value from Irish waters, with carbon absorption services of over 42 million tonnes valued at €818.7 million.

Innovation and efficiency are central elements to achieving these ambitious targets. Smarter, more efficient food production systems are what is needed in order to increase production sustainably and ensure secure food sources into the future.

It is IFA's view that there should be flexible licence conditions to allow for adaptability, where the licencing system facilitates amendments to licence conditions within a reasonable timeframe. Innovation is key to meeting global seafood demands but aquaculture licences must also be dynamic and innovative.

³⁶ EPA (2020) Ireland's Environment, An Integrated Assessment 2020. Retrieved from: <http://www.epa.ie/ebooks/soe2020/2/>

12. Conclusion

Irish farmers are fully committed to making a fair contribution to the reduction of greenhouse gas emissions. There has already been significant uptake of mitigation measures by farmers, such as low emission slurry spreading and the use of protected urea and farmers have engaged positively with new farming practices and environmental programmes such as the ASSAP, Smart Farming as well as EIP projects and training programmes.

Despite farmers willingness to continue to play their role, the Climate Action and Low Carbon Development Bill's proposed target of a 51% reduction by 2030 is not realistic or attainable and must be significantly reduced given the social and economic importance of agriculture as well as the vulnerabilities and technical challenges faced by the sector.

Agriculture's unique potential to offset emissions must be considered and the potential for on-farm renewables, carbon sequestration and carbon farming should be maximised to strengthen the sustainability credentials of Irish food production whilst reducing the impact on climate.

It must be recognised that the agricultural sector is not only a contributor, but a major part of the solution to climate change and with appropriate supports can continue to innovate and adapt in Ireland's transition to a climate neutral economy.

We trust that these comments are useful. If you wish to discuss any aspect of this submission, please contact Geraldine O'Sullivan, IFA Senior Policy Executive by email on geraldineosullivan@ifa.ie or on 087 9385283.

Ends.

APPENDIX 1: IFA submission to Public Consultation on the Microgeneration Support Scheme



Submission to the Public Consultation on the
Microgeneration Support Scheme (MSS)

18th February 2021

1. Executive Summary

Farmers want to be central players in Ireland's energy transition. They recognise the opportunities offered by microgeneration to produce energy for their own use but also to diversify their farm income by selling excess energy to the grid and enhancing the sustainability of their farm business.

Ireland's adoption of renewable technologies at farm level is well below the European average. In 2018, Ireland ranked 23rd out the EU-27 countries for renewable energy from agriculture, producing just 2.6% compared with the EU-27 average of 12.1%.

The scope of the scheme needs to be widened to make farm and community-based microgeneration projects viable. The limited focus of the proposed scheme on domestic installations is a missed opportunity to support farmers and communities to transition to renewable energy.

The net payback period for most on-farm scenarios is too high, while the 70% self-consumption requirement is overly restrictive and a major barrier to adoption by farmers, particularly farmers with a low energy consumption.

A major challenge to microgeneration is the grid connection process, which continues to be a deterrent to the delivery of on-farm renewable projects. Small scale projects must be able to access the grid through a simplified transparent process, with reduced costs and a grid connection timescale to improve the success rate of projects.

There are multiple barriers in the proposed scheme that limit uptake and hamper farm and community-based microgeneration deployment. To remove these barriers and support widespread uptake the following changes are proposed:

- a. In combination with Clean Export Guarantee (CEG) payment, a capital grant support should be available to overcome the high initial investment costs.
- b. Zero cost access and use of the grid for microgeneration installations under 50kW microgeneration.
- c. Removal of the self-consumption limit of 70% to provide low energy users opportunities to generate and export renewable energy.
- d. Removal of the Building Energy Rating (BER) rating requirement.
- e. A streamlined consistent application process with defined timelines for planning decisions.
- f. Domestic residence and farm buildings should be linked using private wire systems so they can share electricity produced.

To meet our renewable energy and emission reduction targets it is vital that farmers and communities are supported and that barriers are removed, so they can be central to Ireland's future energy generation.

2. Introduction

The Irish Farmers Association is Ireland's largest farming organisation with approximately 71,000 members in 940 branches nationwide. We welcome the opportunity to make a submission to the public consultation on the Microgeneration Support Scheme (MSS).

In Ireland, we have a wealth of natural resources that can be harnessed to power our nation. Yet, our adoption of renewable technologies at farm level is well below the European average. In

2018, Ireland ranked 23rd out the EU-27 countries for renewable energy from agriculture, producing just 2.6% compared with the EU-27 average of 12.1%.

The Microgeneration Support Scheme (MSS) is a missed opportunity to support the wide scale adoption of microgeneration in the agricultural sector. The scheme is too limited and needs to be widened to support not just domestic microgeneration projects but farm based and community microgeneration.

Under the proposed scheme, the net payback period for investment for on-farm scenarios is too high. The financial barrier of high initial capital costs makes microgeneration projects unviable. By limiting the sale of surplus electricity to 30% of total electricity generated, farmers that may have the space and resources, but low energy consumption are excluded from the scheme.

It is widely recognised that the agricultural sector has a central role to play if Ireland is to meet its renewable energy and emission reduction targets. However, this scheme fails to harness this potential and support farmers to get involved in the transition to a low carbon economy.

3. Context

In October 2020, the Government published the draft text of the Climate Action and Low Carbon Development (Amendment) Bill 2020, which proposes to commit Ireland to net-zero carbon emissions by 2050. This is one in a series of policy changes that aims to bring transformative change, as Ireland transitions to a low carbon economy.

At European level, policies such as the Clean Energy Package (CEP) and the revised Renewable Energy Directive (RED II), are driving change by supporting the decarbonisation of energy production.

Ireland's Climate Action Plan (2019) sets an ambitious target of reaching 70% of electricity generated from renewable sources by 2030. The plan has a dedicated section on microgeneration that outlines the Government's commitment to develop policy that will support and enable people to sell excess electricity back to the grid.

This strong ambition from the Irish government aligns with RED II which brings the prosumer into the centre of EU energy policy. A 'prosumer' is described as a consumer who both produces and consumes electricity. This recognises the key role consumers have in this transition and Ireland's ability to achieve its 2030 renewable energy targets.

Developing an MSS scheme that supports widespread adoption is critical to achieving the goal of 70% of Irish electricity generated from renewables by 2030.

4. Supporting farmers to diversify into renewable energy

To achieve carbon neutrality by 2050, farmers must be supported to transition to renewable energy and decarbonise the sector. Supporting this transition, will enhance the overall sustainability of farms by improving energy efficiency and also providing new opportunities in renewable energy production.

The assets available to farmers, namely shed roofs should be allowed to be fully utilised to enable farmers to diversify farm income through renewable energy generation while reducing emissions from agriculture. Renewable energy deployment will also bring wider economic development to rural areas through employment, new business opportunities, new revenue sources, as well as increased energy security.

It is a critical to the success of the MSS that it delivers a realistic payback period and that farm and community-based projects are considered 'bankable'. Low cost access to the grid must be provided so farmers can diversify into renewable energy production and make microgeneration viable at farm and community level.

In the proposed scheme multiple barriers remain that limit uptake and do not support widespread adoption of microgeneration at farm and community level. A range of changes to the scheme are required, these include:

- In combination with CEG payment, a capital grant support to overcome the high initial investment costs.
- Zero cost access and use of the grid for microgeneration installations under 50kW microgeneration.
- A streamlined consistent application process with defined timelines for planning decisions.
- Removal of the BER rating requirement.
- Domestic residence and farm buildings should be linked using private wire systems so they can share electricity produced.

5. Public Consultation Questions

Q1. Do you agree with the approach to introduce the CEG in order to provide an export payment that reflects the fair market value of the electricity in compliance with the recast Renewable Energy Directive? If not, what alternative model would you propose and why?

IFA agree in general with the approach to introduce the Clean Export Guarantee to provide a fair market value export payment. Paying small generators for their renewable electricity is fair and makes sense. All renewable electricity is valuable, regardless of the size or scale of energy produced. However, export payment alone will not guarantee adoption of micro generation as it provides a typical payback of approx. 14 – 16 years. This payback period is too long and needs to be reduced to 5-6 years if the Government is committed supporting widespread adoption of microgeneration.

IFA propose to overcome the barriers to adoption that CEG is combined with a capital grant support, a straightforward application process as well as easy access to and use of the National Grid, to support widespread adoption of microgeneration.

Q2. Do you agree that initially the CEG should be a fixed, minimum tariff provided by Suppliers as a pass-through cost based on the annual average Day Ahead Market (DAM) wholesale electricity price? If not, what alternative model would you propose and why?

First and foremost, the rate must be fair and transparent, while in principle basing it on the wholesale electricity rate seems fair, but the rate must be transparent to farmers in order to give a level of confidence around investing in micro generation. Simplicity and transparency are key.

IFA propose that there is a guaranteed floor for the export rate of micro generated electricity, in order to facilitate widespread adoption. The business case for installation will be determined at the point of investment so clarity is required.

Q3. A common 3.75% discount rate across all sectors assessed was chosen as an input to the viability gap assessment. Do the respondents agree with this approach? If not, what alternative would you propose and why?

This rate does not work. The challenge at present is that the payback is too long, 16 years in some instances. The discount rate must be set a level that helps reduce the payback to somewhere in the region of 5 – 6 years.

IFA propose that the discount rate is considered in combination with the CEG rate, a simple capital grant, the cost and access of grid connection and removal of 30% cap on export generation. This would allow farmers and rural communities an opportunity to participate and contribute to the success of our renewables targets via micro generation.

Q4. The emerging policy includes a measure whereby all Renewables Self-Consumers who install micro-generation technology after 30th June 2020 can access a payment of a fixed, minimum Clean Export Premium tariff for exported electricity determined by the lowest cost technology for each sector. Do the respondents agree with this approach? If not, what alternative model would you propose and why?

IFA propose that the:

- ***CEG/CEP tariff should be available to all installations as well as installations before the proposed date, to help overcome the barriers to the capital cost of installation.***
- ***Scope of the scheme needs to be widened to include non-domestic users such as farms and community buildings.***
- ***30% cap on export of electricity to the grid is removed.***
- ***The definition of communities is expanded to define farmers as one community regardless of geographic location or sector.***
- ***Grid access for installations up to 50 kW is facilitated under a low-cost simplified system.***
- ***Each micro technology should be considered individually and specific supports determined to ensure parity and growth in all four areas.***

Q5. The proposed Clean Export Premium tariff for exported electricity will be offered for a maximum duration of 15 years for all technologies. Do the respondents agree with this approach? If not, what alternative model would you propose and why?

No, there are too many caps and barriers that will not create the environment that is required to de-risk investment in microgeneration for farmers and rural communities.

IFA propose that the duration of supports should be based on provided a payback period on the installation of between 5-6 years, with guaranteed support for the lifetime of the investment.

Q6. The high-level design includes a measure whereby a Clean Export Premium tariff for exported electricity will be capped by exported volume related to the installation size in order to prevent over-remuneration. Do the respondents agree with this approach? If not, what alternative model would you propose and why?

No, we disagree. Self-consumption is already built into the system by virtue of the fact that there is no better input to the business case than foregoing a unit of retail electricity. Any element that adds barriers or caps will negatively impact on the success of the scheme. The assets available to farmers, namely shed roofs should be utilised fully to improve overall farm sustainability by allowing farmers to diversify farm income through renewable power generation while reducing emissions from agriculture.

IFA proposed that the:

- **Scheme is redesigned to incentivise adoption of microgeneration at farm and community level, where there is low energy consumption on site.**
- **Caps on installation size are removed to encourage microgeneration.**
- **Domestic residence and farm buildings should be linked using private wire systems so they can share electricity produced.**

Q7. *The high-level design proposed 4 eligible renewable technologies listed above. Do the respondents agree with this proposal? If not, what alternative would you propose and why?*

Yes, this is a comprehensive approach, with solar being the most likely widely adopted technology.

IFA propose that the scheme needs to be redesigned with a greater ambition to exploit the potential of microgeneration at farm and community level.

Q8. *There is a range of renewable technology that can be deployed in domestic and SME premises and can facilitate high levels of renewable electricity self-consumption. The definition of micro-generation is therefore proposed to be "microgeneration technologies including micro-solar PV, micro-hydro, micro-wind and micro-renewable CHP with a maximum electrical output of 50kW". Do the respondents agree with this proposal? If not, what alternative would you propose and why?*

IFA propose that the increase to 50kW should be combined with free access to the grid and planning exemptions to overcome the barriers to microgeneration adoption. In addition, grid access and planning for installations above 50kW needs to be simplified as much as possible.

Q9. *Applicants will be required to have an export connection from the Distribution System Operator. Do the respondents agree with this approach? If not, what alternative model would you propose and why?*

Agree, however this is one of the single biggest challenges with the adoption of micro generation technologies.

IFA propose that the process of grid connection must be simplified and costs be removed for installations under 50kW. The onus for network investment to support thousands of micro generation providers should not lie with the individuals, they should lie with the grid provider and be applied consistently, transparently, and in a timely manner.

Q10. *The CEP will be available to existing buildings only. Do the respondents agree with this approach? If not, what alternative model would you propose and why?*

No, again this is creating unnecessary barriers to adoption that will discourage investment.

IFA propose that scheme is available to new buildings and that this should be reviewed when the scheme is implemented. The scheme must facilitate domestic residences and farm buildings must be allowed share electricity produced.

Q11. Occupied buildings will need to achieve a minimum post-works BER C rating. Do the respondents agree with this approach? If not, what alternative model would you propose and why?

No, this requirement takes no consideration to energy usage and in particular using farm sheds for renewable energy generation.

IFA propose that the BER rating is removed, as it has nothing to do with microgeneration and will only act as an unnecessary barrier to adoption.

Q12. The minimum BER rating for the MSS will be increased over time to align with other Government energy efficiency retrofit programmes. Do the respondents agree with this approach? If not, what alternative model would you propose and why?

IFA propose that the minimum BER rating is removed and be reviewed in the future. There should be no connection between building energy ratings and adoption of micro generation on farms and rural agri-businesses.

Q13. Community groups must conform to the definition of a Renewable Energy Community and be registered with SEAI. Do the respondents agree with this approach? If not, what alternative model would you propose and why?

IFA propose that the definition of a 'Renewable Energy Community' be expanded to include additional flexibility that recognises the farming community, a definition that is not limited by geographic location or buildings.

Q14. The emerging policy proposes that Suppliers recover the costs of the Premium support through the PSO. DECC welcome the respondents' views on the funding mechanism supporting micro-generation. Do you think the PSO should support microgeneration or should this be through Suppliers retail rates or other mechanism?

IFA propose that paying for the MSS through the PSO makes sense, however there should be greater transparency over governance to ensure that all participants and stakeholders are getting value for money.

Q15. DECC welcomes the respondent's views on how to manage the scheme costs and the frequency of changes in the support arrangements.

IFA propose that a stakeholder group should be established to monitor performance and uptake of the scheme, across all sectors and technologies. This group should have the authority to make the required adjustments to the process to ensure success and to hold all stakeholders accountable to the shared goal of micro generation adoption.

6. Conclusion

Ireland's adoption of renewable technologies at farm level is well below the European average. There is huge potential for renewable energy production on Irish farms, and the MSS scheme must support farmers to realise this potential.

Supporting farmers to decarbonise is vital to Ireland's transition to a low carbon economy. If farm-based microgeneration is to be workable then changes to the proposed scheme are required.

We trust that these comments are useful. If you wish to discuss any aspect of this submission, please contact Geraldine O'Sullivan, IFA Senior Policy Executive by email on geraldineosullivan@ifa.ie or on 087 9385283.

Ends.