Sectoral Emissions Ceilings

Q4: What do you view as the key actions required to ensure the emission reduction targets set out in the Sectoral Emission Ceilings are met?

[redacted] TEAGASC:

Anaerobic Digestion and Biochar

Q5: What do you view as the main challenges/obstacles to the Sectoral Emission Ceilings being met?

[redacted] TEAGASC:

Economic and Regulatory

Carbon Pricing & Cross-Cutting Policies

Q6: Are there any unintended barriers within the planning system that should be addressed at national policy level in order to deliver our climate ambitions?

[redacted] Teagasc:

Anaerobic Digestion is beset by challenges in planning due to objections related to what people perceive to be issues related to Anaerobic Digestion.

The main issue of smell is associated with food waste digestions plants however agricultural waste plants are very different, they reduce the smells of farms and and spreading manures

Food waste can be viewed as simply profiteering when it is an important step in the circular bio-economy. However to achieve AD at scale, agricultural resisdues should be embraced and dumping and composting should be reduced.

Q7: 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?

[redacted] Teagasc:

Biochar should be incentivized as a carbon sequestration opportunity. Anaerobic Digestion has the opportunity or reduce emissions from waste and therefore the capital expenditure should be incentivized

the manufacturing equipment should be able to be funded using low or zero interest loans to facilitate distributed generation.

Q8: 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?

[redacted] Teagasc:

Mandate local authorities to digestate green waste instead of mulching on site, this would create green energy and fertilizer.

Wood waste should be allowed to be delivered free of charge to councils which could generate wood chip or biochar for sequestration in combination with Digestate from AD facilities.

Q9: Are there any significant cross-cutting gaps not previously discussed in Climate Action Plan 21 that need to be addressed?

[redacted] Teagasc:

Biochar

Public Sector

Q73: What opportunities exist for the public sector to step up its climate ambition?

[redacted] Teagasc:

recycle nutrients, use sustainable heat, start creating biochar

co. councils are uniquely placed to collect these materials and sell heat and compost. see baden-baden in germany for example

Q74: What sort of practical changes would you expect the public sector to make in leading and delivering Ireland's climate ambition?

[redacted] DAA:

Reducing the bureaucracy around this transition and facilitating innovation.

Renewable Gases

Q13: What role does renewable gas have in the power generation sector?

[redacted] TEAGASC:

It should be used to provide stability, however transportation should be incentivized.

Enterprise, Waste & Circular Economy

Q20: What measures can be taken to accelerate the uptake of carbon-neutral low temperature heating in manufacturing?

[redacted]TEAGASC:

subsidies, embedded carbon labelling.

Electricity

Q13: What role does renewable gas have in the power generation sector?

[redacted]TEAGASC:

It should be used to provide stability, however transportation should be incentivized

Q14: What role could carbon, capture and storage have in decarbonising our power sector?

[redacted]TEAGASC:

This should have a major role via Biochar, which has the added agronomic benefits of reducing nitrous oxide emissions from agricultural land while improving yields

Q16: What measures might be taken to improve the resilience of the electricity system to the impacts of climate change?

[redacted] TEAGASC:

Decentralization

Q17: 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?

[redacted], TEAGASC:

Renewable electricity can be combined with CO2 from Anaerobic Digestion to increase the yield of methane from plant

Q18: What financial incentives are needed to increase renewable generation capacity?

a. To incentivise commercial scale production.

b. To incentivise microgeneration.

[redacted], TEAGASC:

a) feed in tariff, the guarantee return on investment

b) capital grants to reduce up front costs

Q19: What are the regulatory challenges for reaching the renewable energy share targets?

[redacted] TEAGASC:

Planning.

Transport

Q55: 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?

[redacted] TEAGASC:

There should be a focus on guaranteeing the supply of biomethane for transportation fuel. This can be done through Anaerobic Digestion providing distributed generation and filling stations for trucks.

This is an alternative with trucks currently available however filling stations anxiety is probably the biggest barrier.

Agriculture & LULUCF

Q61: What are the opportunities to increase take-up of measures identified in AgClimatise and encourage adoption of other practices which reduce emissions?

[redacted] TEAGASC:

Get system level research on No-Till Arable farming

Change the messaging about "business as usual with protected urea" and show the economic and animal health benefits of Multi Species Swards in a low nitrogen system, this will require massive investment in education of the advisors and farmers

Q62: 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.?

[redacted] TEAGASC:

Education in regenerative farming

Q63: 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?

[redacted] TEAGASC:

Fund extra above ground storage of slurry to extend capabilities on farm to allow for reduced spreading period associated with the higher nitrogen content of digestate over slurry. (this higher nitrogen content reduces fertiliser usage of farm reducing GHG further)
Fund Slurry separation which can be stored in above ground covered tanks. This separation is important for precision famring using nutrients exactly where required and reducing transportation

encourage cooperative to be formed.

careful management of regulations on spreading. If digestate should have a smaller spreading window, however it should potentially be viewed as a fertilizer as opposed to a waste product. A farmer should not be forced to import synthetic or mineral fertilser when a digestate with high utilisation is being produced from his slurry. This would lead to a situation where farms don't supply out of 'fear'

Q64: What can be done to increase sequestration through forestry (afforestation, extended rotations, and improved forest management)?

[redacted] TEAGASC:

create a market for timber other than clear fell forestry.

Q67: 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?

[redacted], TEAGASC:

Stop using the words "incorporating straw" this word is used on the premise that metal is required to disturb the soil, putting oxygen into the soil which allows soil microbes to volatise soil carbon and releasing nitrogen.
A healthy soil has sufficient worms to 'incorporate' the straw. this happens in good soil conditions which no research institution has carried on system level analysis in yet in ireland...

Shift the narrative on "force tillage" to create a "free green cover" or otherwise known in the industry as a "green bridge for disease". This creates a negative feedback loop within farmers who are then less likely to invest in cover crops.

Focus should be in the cost of cover crops seed and no-till and minimum distrubance equipment, to reduce cost of diesel and labour to the farmer, once the yields improve then the action will be complete.

Research & Innovation

Q91: 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?

[redacted] TEAGASC:

I don't beleive that sufficient research is being carried out in ; No-Till Agriculture, Multi Species Swards, Biochar, biological farming.
These are areas that need evidence to help policy to shift. otherwise policy will continue to look at the lowest hanging fruit and show a lack of ambition

Q92: Have you identified any research and innovation gaps which need to be addressed? If so, how can these gaps best be addressed?

[redacted] TEAGASC:

Biochar.
Biorefining to seperate grass and slurry to supply feedstocks
No-Till arable farming
Legume research