

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?

At this stage the strongest focus should be on known measures that have a long-term role to play in the climate transition to 2050. Furthermore, the greatest focus should be on the sectors of transport, built environment and agriculture.

For transport, that would include investments in active travel, mass transit and fleet electrification. All of these are priorities for transport that will be relevant still by 2050. In contrast biofuels should not be a priority for investment or added action given the outstanding challenges and their being an interim measure.

For the built environment, retrofitting of existing stock at scale and speed remains the greatest challenge. Electrification of home heating is also a natural pairing to this strategy. Once again both measures will be relevant in 2050. The scaling up of industrial scale retrofit operations, and the aggregation of stock for works is necessary to deliver this at speed and with improved efficiency.

For the agricultural sector there are many challenges, and a handful of viable measures, including new feed additives. Lessons from California and New Zealand are relevant here. However, one of the major challenges will be in designing a system that creates an appropriately incentivised and sustainable sector, and in this regard the lessons from the recently introduced Sustainable Farming Incentive scheme, and the broader Agricultural Transition Plan¹ should be carefully considered.

Related to the above, and land use more generally, it will be imperative that Ireland can realise the full value of credits associated with forestry under the Effort Sharing Regulation. This needs particular attention.

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

The menu of options are reasonably clear to make substantial progress on abatement. The challenges include resourcing, coordination of action and the scaling up of activities. So on the retrofit side the absence of large industrial retrofit organisations remains a constraint. The supply of electric vehicles into the market may represent a constraint for transport. The speed with which planning and investment in sustainable transport can take place is also a constraint. These are all issues to address.

Part of the solution here will be targeted approaches to action and the sharing of evidence and lessons to all other potential actors. Fine scale spatial analytics, high quality quantitative assessment, and sustained and clear communication of insights will be necessary. So for example, in regard to electric vehicles – assess where vehicle change should be prioritised, which segments, monitor total cost of ownership and

¹ <https://www.gov.uk/government/publications/agricultural-transition-plan-2021-to-2024>

communicate to consumers (private and commercial) over time to guide them at their key decision points. Where progress is slow, adjust incentives to stimulate change. Reward early action.

Built Environment

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

Labour will be attracted to stable secure work. Continue to work to support the creation of major industrial scale operators in retrofit that can absorb new trainees. The key to this will be working with larger industrial scale operators in packaging up clusters of work that provide the pipeline necessary to contract new staff on a stable basis. In this regard, there should be more definitive targets for retrofit for councils and housing bodies to stimulate action on the scale necessary. At present we have aggregate targets (e.g. 500,000 retrofits) but no definitive official threshold on how much of this will be delivered from social housing. If that were defined and allocated then it could drive larger bodies of work with greater clustered efficiency.

2. 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?

Targeted supports remain the most effective approach, however, it is challenging to ensure all at risk are protected. Our spatial analytical methods can assist in this. Similarly, data from the utility providers would be valuable if these could be shared for collaborative work.

Transport

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?

Continue to work on effective case studies of SM and DM and share these case studies. The approach of requiring local authorities to act in a certain timeframe from a menu of options (or their own innovations) is appropriate and needs a sustained push.

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?

Further work should focus on parking policy and road use/congestion charging options and viability. These will need to be area specific with good provision for data collection and the sharing of outcomes to others.

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).

Surveys of modal satisfaction can assist with understanding exactly what is driving or deterring actions in specific areas and on specific modes. Run these nationally and utilise the results to guide investment and actions. See paper at <https://doi.org/10.1016/j.tra.2020.04.007>

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

See our specific work on this topic here - <https://doi.org/10.1016/j.indic.2022.100190>

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?

We have spatial analytical work developing on this topic that will be shared directly with DECC/DOT when available in Q4 2022.

2. What specific actions can government take to help create a robust second-hand market for electric vehicles?

Encourage more rental car uptake rates, incentivise businesses better for EV adoption for company cars. At present the OMSP applied for benefit estimation is based on the new car rate, even if the purchase is second hand say from the UK. Ireland will need UK imports and where individuals and companies are sourcing these to bring them into the Irish market, they should be supported by at least applying an age depreciated OMSP. We will need many channels of imports to hit our EV targets.

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?

It has already been achieved for the two most popular segments. See paper we submitted and referenced - <https://doi.org/10.1016/j.commtr.2022.100071>

Freight / Commercial Sector

1. What specific measures can be applied in the commercial transport sector to encourage or accelerate a change to EVs or to other zero carbon alternatives?

In smaller classes, the incentives are already there for fleets, it is perhaps more a question of information. The debate for electrification or otherwise of small van fleets etc. is largely over, and it makes considerable sense in almost all cases on any contemporary full TCO analysis. Maintain the supports and communicate the TCO over a time horizon of 4 years ownership to support change.

2. As a transitional fuel to help decarbonise the road haulage sector, what obstacles do 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?

This is an interim measure and has a place to 2030, however, over the coming years alternative drivetrain options for heavier vehicles will become available, and thus locking-in further supports for the biofuel industry should be carefully monitored. The question of whether vehicle manufacturers will continue to develop their fleets for higher and higher blends of biofuels over the medium term is also questionable.

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?
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?

Local authorities should be charged with making these determinations for their local areas. There is also the potential for 3rd party spatial analytical work to guide decisions on levels of service. The new census provides opportunities for useful contemporary analysis.

Agriculture, Land Use and Forestry

1. 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?

Should this be maximised? How much scale can be realistically expected from biomethane and is it worth the investment given medium term ambitions surrounding oil and gas use in all sectors?

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

Improve spatial targeting of locations for afforestation, improved investment 'packages' for action, and reduce incentives for commercial biomass production from all but waste/management wood.

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?

Awareness of actions and alternate options is a challenge, however, too often there is also no strong signal to act and change behaviour. Phased interventions over time with careful dynamic adaptation of policies will deliver more consumer behavioural change, and businesses will then respond more to those changes. The forthcoming levy system on single use disposable cups will be a key entry point for circular economy action and education.

2. What other opportunities exist to support decarbonisation through the acceleration of a transition to the circular economy?

Action on the circular economy is important across a number of perspectives, however, more from a general sustainability perspective than a climate policy perspective for Ireland.

Just Transition

We have provided separate support to DECC on Just Transition in the form of the Territorial Just Transition Plan that is available internally.

Research and Innovation

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?

A number of these are in place and Ireland should perhaps focus on collaborative areas where we have a particular advantage in the advancement of research and innovation e.g. Agriculture and New Zealand Agriculture. Whilst there may be good research in specialist units across Ireland, it is unlikely that Ireland will be a leader in research and innovation for electric vehicles, hydrogen etc. Scale of infrastructure and investment will lead on those topics and thus we would be better to prioritise leadership and stronger research in other areas, and to collaborate where we can on the rest.

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

The scale of Ireland as a test-bed for policy and technology adoption remains a valid advantage and pursuit of trial cases of policy and technology would be worthwhile in many areas. Data sharing and good setup of studies where action is undertaken are important.

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?

Innovation for effective and efficient interventions in road transport infrastructure and in home retrofit systems, represent areas where Ireland could develop new methods and systems that offer marginal improvements internationally.

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

Retention of specialist skills and expertise will remain a challenge and commercial pathways, as well as academic pathways need to be maintained to sustain and build the necessary workforce to steer and deliver on the climate transition.