Thank you for your correspondence dated 25 April 2018.

The role of the Committee on Climate Change (CCC) is set out in the Climate Change (Scotland) Act 2009. As such this includes a requirement for Ministers to request the CCC’s advice in relation to setting emissions reduction targets under Part 1 of the Act, and to make or publish a statement if that advice is not followed.

As part of its advice on target setting, the CCC also advises on certain aspects of how targets should be met – in terms of the balance of domestic effort and credit use, the balance of effort between the traded and non-traded sectors of the economy and the balance of effort between the various sectors of the economy. [The 2009 Act also requires Scottish Ministers to request annual reports from the CCC on progress towards emissions reduction targets, and any recommendations set out therein are carefully considered.] Independent, expert advice from the CCC forms an important part of the Scottish Government’s (SG) response to tackling climate change – alongside other considerations such as stakeholder views and available resources including financial budgets.

In regard to their advice for agriculture, the CCC have identify five categories in which it is feasible to deliver abatement in namely; crop and soil management, livestock health, livestock diets and breeding, waste and manure management and fuel efficiency.

I am pleased to say that these five categories have been taken on board by the SG and can been seen within the policies, proposals and milestones of the agriculture chapter of the Climate Change Plan. These policies, proposals and milestone have been developed to help us to achieve our five overarching policy outcomes:

- **Policy outcome 1**: More farmers, crofters, land managers and other primary food producers are aware of the benefits and practicalities of cost-effective climate mitigation measures and uptake will have increased.
• **Policy outcome 2**: Emissions from nitrogen fertiliser will have fallen through a combination of improved understanding, efficient application and improved soil condition.

• **Policy outcome 3**: Reduced emissions from red meat and dairy through improved emissions intensity.

• **Policy outcome 4**: Reduced emissions from the use and storage of manure and slurry.

• **Policy outcome 5**: Carbon sequestration on agricultural land has helped to increase our national carbon sink.

Our aim is to foster a cultural and behavioural shift throughout the agricultural sector even though this is a time of great uncertainty as the UK Government struggles to articulate what leaving the EU means for farming. In addition to this uncertainty, we must also accept the fact that there is no universal or “silver bullet” solution that can be placed upon Scottish farming, what works on one farm may not be practical or effective on another. That is why we continue to support the Farm Advisory Service (FAS), Farming For a Better Climate (FFBC) and the Soil Nutrient Network. This support allows high quality advice and information on the potential benefits of a range practices such as soil testing, nutrient planning, carbon audits and integrated land management plans to be available to all farmers, crofters and land managers.

It is through the provision of this information and advice on the potential benefits of low carbon farming practices such as soil testing and nutrient planning that we will see lasting change within the industry. That is why knowledge transfer is a key theme running through the agricultural chapter.

With regard to the approach that has been taken on soil testing in agriculture and what may happen should we not be on track to meet our targets. I am sure you will recall that I have already gone on record with you and the committee as per my letter dated 8 March 2017 in saying “The timetable set out in the draft climate change plan envisages the proportion of improved land tested increasing by a sixth each year, until all improved land is covered in 2023. In 2020 we will check on the progress we are making towards this. If we are not on track, we will look at possible incentives to realign ourselves with the targets”.

When addressing the economic benefits that can be gained from adopting relevant low carbon farming practices our FFBC focus farms are a fantastic example. The most recent of these farms is Woodhead in Newmilns Ayrshire, Woodhead is a dairy farm run by John and Anne Kerr.

John and Anne saved around £63,000 whilst reducing their carbon footprint by nearly 6%. Through actions such as

• Installation of a biomass boiler to produce heat from woodchip, which has reduced electricity use by 32 per cent
• Making more use of the smaller tractor on the feed wagon, saving around 4,400 litres of fuel a year
• Nutrient budgeting saving around £5,000 in fertiliser costs
• Improvements to cow housing ventilation and light levels have been improved by removing some of the side sheets from the cubicle shed. Now lighting can be switched off during the day and the cows have well-ventilated accommodation, reducing disease risk.
More information on the practices adopted and the benefits gained on the other focus farms that have gone through the programme is available at https://www.farmingforabetterclimate.org/.

As you have highlighted, we are in the process of evaluating our FFBC programme and this shall be achieved in two ways. Firstly to look at the impact it has had on those that have attended events through a follow up survey. Secondly through a longer term aspiration to establish what effects FFBC may have had on the wider agricultural sector here in Scotland. Work to establish this evaluation began in late 2017 and at the time of drafting the final plan was still in its early stages therefore we did not include a timeframe. However, we expect to have early results on the effects that FFBC has had on those that attended events in the summer of this year.

In answer to your queries on transport. The SG will shortly introduce a Transport Bill to Parliament which will provide local authorities with a viable and flexible set of options to ensure that their bus services meet local users’ needs whether they wish to pursue partnership working, local franchising, running their own buses or developing multi-operator ticketing arrangements using smart ticketing technology. The Bill will also aim to improve the information and, through improved governance and guidance, ticketing choices available to passengers so that bus travel is more accessible and attractive.

Meanwhile, we will continue to support the bus network and the adoption of cleaner, greener technologies, through the Bus Service Operators Grant (BSOG), the BSOG Low Carbon Vehicle Incentive and the Scottish Green Bus Fund, and is working with operators to identify congestion hotspots which can hinder the delivery of more reliable, faster services that would help attract patronage, including from modal shift. The national concessionary travel schemes will continue. They support around 142 million journeys a year, a proportion of which would otherwise have been made by car.

In terms of progress towards the national cycling action plan. Progress towards meeting the headline shared vision of 10% of everyday journeys being made by bike has been disappointing. In response, we are undertaking a broad programme of analytical work and engagement with delivery partners to better understand; i) where we are making progress in improving rates of active travel (walking as well as cycling) such as that in some cities and how to maximise those gains and; ii) what obstacles we face to further progress and how we might overcome those obstacles. This work will help us and our partners to gain a better understanding of the feasibility of the CAPS vision and shape and prioritise our work on active travel.

The Programme for Government (PfG) doubled the already record investment in walking and cycling, from £39.2 million from 2014 per annum to £80 million this financial year. The doubling of the active travel budget – further bolstered by match funding from local authorities and other partners - will allow us to invest in major capital infrastructure projects to be funded in tandem with an increase in successful behaviour change and education programmes. So far our Community Links programme has delivered 267 miles of walking and cycling paths, including 242 miles of completely new infrastructure. As funding for active travel increases, we are looking at the evidence and learning from experience inside and outside of Scotland to help us target our investment and ensure that it genuinely drives behaviour change. And we are working across policy areas to ensure that other measures, such as the introduction of low emission zones, or climate change adaptation measures can be used facilitate a longer term shift to more active forms of transport.
With regards to the distribution of the carbon envelopes across the plan. This was achieved through the use of the Scottish TIMES model. The TIMES model is a high level strategic model, covering the entire Scottish energy system and containing many thousands of variables covering existing and future technologies and processes. This model is rapidly becoming the de-facto standard tool for whole-systems energy modelling in Europe and North America.

The emission reduction pathway, and associated policies and proposals set out in the Plan have been agreed by Scottish Ministers as the most beneficial to Scotland. The emissions envelopes and the pathway are different to those in the draft Plan, however the final pathway was developed in light of recommendations by the Scottish Parliament, engagement with stakeholders, data revisions and new modelling, and new policies and proposals.

Turning to the point about different modelling assumptions regarding transport, whilst the assumptions appear to differ (Element Energy refer to the “growth in the vehicle parc”, we refer to “economic growth” and the CCC refers to “income growth”), they are essentially manifestations of the same thing. Economic growth typically leads to household income growth and growth in household income typically leads to a rise in car ownership. All of these typically generate a growth in travel demand.

I understand that my colleague the Cabinet Secretary for the Environment, Climate Change and Land Reform has made further information on the TIMES model available in the form of a technical annex of the Climate Change Plan.

Yours Sincerely

FERGUS EWING