

# Response to the Climate Change Committee

Progress reducing emissions in Scotland –  
2021 Report to Parliament



Cabinet Secretary for Net Zero, Energy and  
Transport  
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Lord Deben, Chairman of the Climate  
Change Committee

By email: [private.office@theccc.org.uk](mailto:private.office@theccc.org.uk)

26 May 2022

Dear Lord Deben,

We are grateful for, and welcome, your Committee's December 2021 report on Scotland's progress in reducing greenhouse gas emissions. The Scottish Government remains committed to ending Scotland's contribution to climate change in a way that is just and fair by 2045, in line with the statutory targets set in the 2019 Climate Change Act.

We welcome the Committee highlighting our high ambition for decarbonisation, and our leading actions in areas such as setting out buildings decarbonisation and public engagement. We are alive to your call for further urgent action across all sectors of the economy, particularly in light of recent international events, and agree with the Committee's finding that the focus now in Scotland must be on the delivery of our policies aimed at driving transformational emissions reductions across all areas of the economy.

Since the publication of the committee's report, we have made significant key steps that will drive delivery, for example the publication of multiple sector strategies containing ambitious policies. These include the routemap to achieve a 20% reduction in car kilometres by 2030; the ScotWind leasing rounds over this Parliament, with the goal of increasing our capacity up to 24.8 gigawatts by 2030 – enough to power 8m homes; our Infrastructure Investment Plan, published in February this year, including almost £9bn for environmental sustainability and the transition to net zero; as well as the [Fuel Poverty Strategy](#) published December 2021 and the Climate Change Emergency Skills Action Plan.

We will ensure that the Committee's progress report recommendations are considered and incorporated as part of the wider approach to keeping our package of policies on climate change under review. Our response to all of the recommendations is contained in Annex A and, in summary, of the 70 specific recommendations raised by the Committee we accept (either fully or partially) 66 of these. The remaining 4 cannot be accepted at this time, but will be kept under review.

The CCC have categorised the recommendations as either being the sole responsibility of the Scottish Government, or having a joint responsibility with the UK Government. Of the 14 that have joint responsibility, we have accepted or partially accepted 13 of these; we'd expect the UK Government to match our ambition to ensure these can be delivered upon. Two of the four recommendations that we cannot accept are actually in part reserved matters, and so the Scottish Government will continue to work with the UK Government on these.

This response should be read alongside the statutory Climate Change Plan monitoring reports laid in the Scottish Parliament on 26 May, which include particular updates on NETs, and an assessment against outcome indicators.

Finally, as the Committee is aware, we are planning to lay a draft of the next full Climate Change Plan by November 2023. The Committee's current and future advice will form an important element of the process of shaping that Plan, and we look forward to further engagement.

Please be aware that a copy of this letter will be laid in the Scottish Parliament and that I intend to publish a further copy on the Scottish Government website.



**Michael Matheson**

# Annex A: Responses to the Recommendations

## 1. Next steps for cross-economy policy

### **1.1 Work closely with the UK Government to secure commitments around deployment of CCS infrastructure and greenhouse gas removals in Scotland.**

Timing: **2022**

Primary responsibility: **Joint with UK Government**

Scottish Government response : **accept**

Supporting the Scottish Cluster for the deployment of CCS is critical to supporting net-zero, supply chain growth and economic benefit in Scotland, and underpins any opportunity for negative emissions technologies in Scotland's energy mix. All credible evidence advice and analysis has demonstrated that CCS is critical for meeting statutory emissions targets, and as such it is critical that the UK Government provide greater clarity on CCS following the decision to not to give the Scottish Cluster (led by the Acorn Project at St Fergus) clear and definitive Track 1 status in its CCS cluster sequencing process.

The Scottish Government does not hold all the necessary legislative and regulatory levers needed to stand up a CCS cluster alone, UK Government support including access to BEIS business revenue support, underwriting of liabilities and access to an economic licence is essential to providing the certainty and support required to accelerate CCS in Scotland. Given the criticality of CCS the Scottish Government has already engaged with the UK Government to press for greater clarity and to work collaboratively with them to find solutions to accelerate the development of the Scottish Cluster and the deployment of CCS in Scotland, and will continue to do so. We have already offered £80 million from our Emerging Energy Technologies Fund and are reviewing what further actions we can undertake within our devolved responsibilities to work with the UK Government towards a mutually beneficial outcome.

### **1.2 Identify a cut-off point, no later than 2023, beyond which efforts should be increased in other areas if commitments on CCS infrastructure and greenhouse gas removals are not secured. This cut-off point should be identified as soon as possible in 2022.**

Timing: **2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **partially accept**

The Scottish Government has committed to bringing forward a draft of the next Climate Change Plan, to be laid in Parliament by November 2023. This will set out our emissions reduction effort by sector to ensure annual targets are met up to the late 2030s and will use the best science available when being produced.

CCS is necessary for Scotland to become net zero by 2045, however, the Scottish Government does not hold all the necessary legislative and regulatory levers needed to stand up a CCS cluster alone; UK Government support including access to BEIS business revenue support, and underwriting of liabilities is essential to providing the certainty and support required to accelerate CCS in Scotland. Given the criticality of CCS the Scottish Government has already engaged with the UK Government to press for greater clarity and to work collaboratively with them to find solutions to accelerate the development of the Scottish Cluster and the deployment of CCS in Scotland, and will continue to do so.

The UK Government has committed to supporting four CCS clusters in the UK by 2030 at the latest. However, it has yet to set out the timetable for the Track-2 of its cluster sequencing process, through which it will announce the remaining two CCS clusters to be progressed with UK Government support. The timetable for track-2 will impact the identification of an appropriate cut-off point for considering efforts to increase emissions reductions in other areas. The Scottish Government continues to press for greater and immediate clarity on the Track-2 timetable to give this much needed clarity and certainty.

### **1.3 Publish quantified emissions abatement from policies and plans in each sector, demonstrating how the annual and interim targets will be met.**

Timing: **2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **partially accept**

The 2019 Climate Change Act states that Plans must “set out an estimate of the costs and benefits” associated with their policies. Our plan for the next Climate Change Plan, which is due to be published in draft in late 2023, is to include emissions abatement in this assessment, and to be as transparent and granular as possible.

### **1.4 Efforts should be made to lock in behaviours beneficial to emission reduction that emerged in the COVID-19 lockdowns. Taxation and investment should be used, alongside improvements in broadband, to embed reductions in travel demand that have arisen during the pandemic, replacing business travel with videoconferencing and online collaboration.**

Timing: **2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **accept**

The COVID-19 pandemic brought about extraordinarily rapid changes in individuals' behaviours. Lockdown restrictions designed to contain the spread of the virus had a knock-on impact on our daily movements and behaviours relevant to Scotland's net zero target. The behaviour changes that flowed from this disruption to daily schedules were wide reaching and did not take place in isolation, with many net zero behaviours being interlinked. The easing of COVID-19 restrictions over time saw the return of some former, less desirable behaviours and the lessening of some of the newer behaviour changes. Significant barriers to maintaining positive and desirable

behaviours remain and include a lack of infrastructure or services, a knowledge or skills gap, and cost.

There is a clear risk of individuals simply re-adopting their pre-pandemic behaviours in key areas such as transport and active travel, even though positive intentions about sustaining the net zero behaviours they had adopted during the pandemic were expressed. This is in part because of the centrality of work in influencing net zero behaviours, which means that as restrictions ease and offices re-open, individuals may slip back into their pre-pandemic transport and travel behaviours.

Research has shown the extent to which changes to work routines (notably moving to home working) can impact on so many other behaviours, from food preparation and waste to shopping for clothes. The centrality of work and the interconnected nature behaviours point to promising avenues for policy intervention, such as encouraging reduced business travel or even trialling shorter working weeks, in order to help reduce time pressures and facilitate more local lifestyles. The evidence shows us that it cannot be assumed that working from home will reduce emissions in every circumstance. The emissions outcome of working from home at an individual level depends on the home type and the commuting behaviour. Regardless of the location of work, it is clear that replacing business travel with tools like video conferencing should in most instances lead to lower emissions. The lowest emission future is one where people commuting short to medium distances do so by public and active travel and continue to commute to an energy efficient office, while people who commute long distance shift to working from home. Businesses and individuals will need to consider a wide range of contributing factors (including heating and transport) when calculating their workplace emissions, in supporting Scotland to reach net zero.

Active intervention is required by the Government to support positive behaviour change and careful consideration of the impacts decisions taken to promote economic recovery might have on emissions related behaviours. It is essential to create an 'enabling environment' for net zero lifestyles in the recovery from COVID-19 which will help individuals sustain the positive behaviours, and for this 'enabling environment' to address the full range of barriers that people currently face that constrain them from adopting net zero behaviours.

The [National Transport Strategy](#) establishes the sustainable travel hierarchy as a guiding principle, embedded in all of our policy and investment decision-making, to promote walking, wheeling, cycling, public transport, and bike, car and ride sharing, over single-occupancy car use. We fund specific sustainable travel information and support services tailored and targeted at Scottish employers and employees, including help to find funding and training opportunities, case studies, accreditations and motivational challenges, expert advice, events, and other resources. These information and support services will help sustain the increased levels of Active Travel we have seen as a result of COVID-19.

The public is generally supportive of actions being taken to encourage positive net zero behaviours, however, not all examples of potential interventions is seen as acceptable. Interventions involving support for behaviour change, whether in the form of advice, information, financial incentives or infrastructure are seen more

favourably than those involving charges or forms of regulation or enforcement of behaviour.

The [route map](#) which sets out how we will meet the Scottish Government commitment to reduce car travel by 20% by 2030, contains over 30 interventions which aim to build on actions we have already been taking to sustain the positive behaviour changes arising from the Covid-19 pandemic - such as our commitment to invest at least £320 million or 10% of the transport budget by 2024-25 for active travel initiatives such as infrastructure, access to bikes and behaviour changes schemes. The [Scottish Budget](#) for the current financial year (2022-23) is a record £150 million as we progress towards the increased level of investment in active travel.

We know that the range of policy incentives outlined in the route map, need to be coupled with demand management measures to reduce the need to travel by unsustainable modes. For example, we have outlined within the route map the demand management measures found in the Transport Act – empowering local authorities to implement low emission zones and workplace parking levies. However, the most direct levers to disincentivise car use– Fuel Duty and Vehicle Excise Duty – are reserved to the UK Government. While engagement has been sought both at Ministerial and at official level (across the Devolved Administrations) there is currently no clarity from the UK Government on its plans for replacement of motoring taxes nor on the timing of any such reform. We will continue to seek engagement with the UK Government and emphasise the need for urgent action.

The [2021 Programme for Government](#) sets out the ambition for 20 minute neighbourhoods, which, through place-based approaches are a means of rethinking how housing, service provision, city, town or village centres could be re-configured to support new ways of working, homeworking and community hubs in line with localism objectives and reducing demand for motorised travel. ‘Local living’ is a spatial principle set out in the [draft National Planning Framework 4](#) (NPF4), including commitment to the creation of networks of 20 minute neighbourhoods.

Consultation on the draft NPF4 closed 31 March. We are considering all responses to the consultation, including those from the CCC and will lay a finalised NPF4 for approval by the Scottish Parliament before it is adopted by Ministers.

Following its adoption, NPF4 will form part of the statutory development plan, the primary basis for decisions made through Scotland’s planning system.

**1.5 Review Net Zero policies in light of the recent evidence from the Independent Assessment of UK Climate Risk, published in June this year, which identified increasing climate risks across all sectors with associated implications for achieving Net Zero.**

Timing: **2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **accept**

As we prepare the next full Climate Change Plan (a draft of which is due with Parliament by late 2023), we will be assessing the costs and benefits of current and potential future net zero policies. This will include the impact policies will have on adaptation and resilience outcomes, with findings directly influencing policy decisions. This work will commence this year but will conclude in 2023.

**1.6 Develop policies to drive more resource-efficient construction and use of existing low-carbon materials. This should include setting out a plan for phasing in mandatory whole-life reporting followed by minimum whole-life standards for all buildings, roads and infrastructure by 2025, with differentiated targets by function, scale, and public/private construction.**

Timing: **2022**

Primary responsibility: **Joint with UK Government**

Scottish Government response: **partially accept**

The draft NPF4 included NPF4 Universal Policy 2 'Climate Emergency'; that policy is clear that: all development should be designed to minimise emissions over its lifecycle in line with the decarbonisation pathways set out nationally; and that development proposals for national, major and development requiring Environmental Impact Assessment should be accompanied by a whole-life assessment of greenhouse gas emissions from the development. Policy 20 'Zero Waste' is clear that all development should aim to use materials with the lowest forms of embodied emissions, that material should be suitable for reuse with minimal reprocessing, and encourages the use of previously used, sustainable, local, recycled and natural construction materials that also store carbon. Consultation on the draft NPF4 closed 31 March. We are considering all responses to the consultation, including those from the CCC and will lay a finalised NPF4 for approval by the Scottish Parliament before it is adopted by Ministers. Following its adoption, NPF4 will form part of the statutory development plan, the primary basis for decisions made through Scotland's planning system.

In terms of road works policy, the use of in-situ recycling and lower carbon materials is already encouraged under the existing framework. Current legislative reform is looking at simplifying the process of trailing lower carbon materials, and on reduced vehicle movements as part of a 'right first time' model. The monitoring and review of this area is undertaken by the Scottish Road Works Commissioner. One of these reforms, the Reinstatement Quality Plan requirement, is currently in the process of being put into secondary legislation, but was 'soft launched' as a voluntary process in January 2022. The Commissioner requires these plans to have a robust



'environmental sustainability' section to gain his approval, which is necessary to continue to undertake works in Scotland's roads.

The waste and recycling route map, due to be published in May 2022, will include a focus on construction including resource efficiency.

Scotland's Climate Assembly recommended that we take into account the whole life carbon costs and environmental impact of new homes (recommendation 7), new and existing non-residential buildings (recommendation 9) and existing homes (recommendation 11). In [our response to the recommendations of the Assembly](#), we noted that, whilst the issue of whole life carbon costs is not currently addressed by building regulations in Scotland or, indeed, anywhere in the UK, we recognised the benefit of any action which raises awareness of the broader environmental impact of development and influences development decisions. We committed to investigate opportunities for whole life emission reporting, through building regulations or by other means and proposed to provide an update on this before the end of 2022.

### **1.7 Implement plans to make all public buildings and vehicle fleets zero-carbon in the long term and monitor emissions in the Scottish Government estate.**

Timing: **Ongoing**

Primary responsibility: **Scottish Government**

Scottish Government response: **accept**

Over the next Parliament, at least £200 million will be invested in the Scottish public sector estate to improve and reduce energy use and install zero emissions heating systems. The Scottish Green Public Sector Estate Scheme was launched in June 2021, which brings together our existing Public Sector Energy Efficiency Loan Scheme, Public Sector Non-Domestic Energy Efficiency Frameworks and Project Support Unit, with new support for Central Government bodies to support leadership for energy efficiency and heat decarbonisation right across the public sector.

On the Scottish public sector fleet, The Programme for Government 2019 has already set out ambitious targets to decarbonise the public sector fleet in stages. Removing all petrol and diesel cars and new vans from the public sector fleet by 2025, and creating the conditions that remove the need for any new petrol and diesel vehicles in the public sector fleet from 2030, applying flexibility and pragmatism where required for front line, emergency service and specialist vehicles.

We are working with Scottish Future Trust to identify new, innovative approaches to funding public sector fleet decarbonisation and have supported the introduction of a range of emerging zero emission vehicles across the public sector.

We are also identifying opportunities to use public sector fleets and procurement to maximise opportunities to support innovation in zero emission mobility, leveraging the work of Scotland's internationally recognised universities and research institutes, and Scotland's supply chain for niche and heavy duty vehicles, to support fleet

decarbonisation by building the zero emission components, systems, and vehicles that Scotland needs in Scotland. Early successes whilst working with the public and private sectors have led to the development and deployment of hydrogen fuel cell and battery electric zero emission buses, refuse collection vehicles, emergency service vehicles, gritters and highways vehicles.

### **1.8 Ensure that the education system provides people with knowledge of climate issues and actions to support the transition to a Net Zero economy and prepare for the risks of climate change.**

Timing: **Ongoing**

Primary responsibility: **Scottish Government**

Scottish Government response: **accept**

In relation to early learning and school education (age 3-18), [Learning for Sustainability](#) (LfS) is already in place as our cross-curricular concept for sustainable development education, which includes climate education. Scottish Government is implementing our LfS Action Plan and is currently going through an engagement exercise with stakeholders to further strengthen this plan. This is complemented by increased involvement of the Community Learning and Development (CLD) sector (includes adult learning, youth work, and community development practice) in national networks, and policy development to support practice. For example the new [Adult Learning Strategy for Scotland](#) (May 2022) identifies the need for adult learners to access more opportunities to develop knowledge and influence change in areas such as community-led climate change.

Scotland's colleges committed in May 2021 to net zero emissions by 2040 or earlier. They have collectively signed up to the [Scottish College's Statement of Commitment on the Climate Emergency](#), produced by the College Development Network (CDN) Commitment on Climate Change. The colleges have committed to 10 key actions to support the Scottish Government's commitment to meet its targets of zero Greenhouse Gas Emissions (GHG) by 2045; and a reduction of 75% in GHG by 2030.

Scotland's universities are each developing their own statements on climate change. Colleges plan their course provision in line with the economic needs of their regions, and through working closely with employers, are able to respond flexibly to the skills demands of the region and communities they serve.

Universities are autonomous institutions, and as such are responsible for their own subject provision and curricula. On our behalf, in line with our strategic priorities, the Scottish Funding Council allocates funding to universities for learning and teaching, and it is then for the universities themselves to decide how to distribute funded places between faculties and courses.

The Minister for Higher Education and Further Education has regular engagement with colleges and universities regarding their approach to skills to support the transition to net zero.

**1.9 Incorporate workforce implications and skills requirements into all sectoral Just Transition Plans and rapidly implement actions identified in these plans, to ensure that skills shortages do not slow down progress.**

Timing: **2021/22**

Primary responsibility: **Scottish Government**

Scottish Government response: **accept**

Our [response](#) to the report of the Just Transition Commission was published in September 2021 and included a National Transition Planning Framework, which sets out how we will approach the development of sectoral just transition plans. Our Planning Framework is built on eight national just transition outcomes, one of which relates to skills and education, meaning our sectoral plans will need to account for workforce implications and skills requirements as asked for in the CCC's recommendation. Work on the Energy Strategy and Just Transition Plan is already underway, which will build on progress already made through implementation of the Climate Emergency Skills Action Plan and development of the soon-to-be-launched Green Skills Hubs, to provide a tangible example of action aligned to this recommendation. Officials are currently working to confirm a forward-look of sectoral transition plans, and hope to be able to confirm this in the coming months.

## 2. Surface transport

**2.1 Publish, and start to implement, a strategy setting out how Scotland will achieve a 20% reduction in car-kilometres by 2030 and deliver 20-minute neighbourhoods. This should be supported by:**

- Continuing to strengthen schemes to support walking, cycling, and public transport.
- Investment in infrastructure connectivity to lock in positive behavioural changes that reduce travel demand (e.g. home-working).

Timing: **2021/22**

Primary responsibility: **Scottish Government**

Scottish Government response: **accept**

The [route map](#) to achieving a 20% reduction in car kms was published on 13 January 2022. The route map outlines a behaviour change framework which caters for the diversity of people living in Scotland by setting out four sustainable travel behaviours which people can choose to adopt. It contains over 30 interventions we will take between now and 2030 to support each of the four behaviours.

Among these, we have pledged more than £500 m for bus priority measures, £50 m for Active Freeways and £500 m for active travel infrastructure, access to bikes and behavioural change schemes. It is supported by our Programme for Government commitments on 20 minute neighbourhoods – connected, accessible places where people can meet their daily needs locally, enabling people to live, work and pursue opportunities to improve their learning and wellbeing in communities close to home – and the Work Local Challenge Programme to support flexible, remote and local working choices. We also recognise the vital role that digital connectivity will play in meeting Scotland’s world-leading climate change ambitions. This is why we made our commitment to extend superfast broadband access to 100% of premises in Scotland, regardless of location.

In January, we also published the [draft second Strategic Transport Projects Review recommendations](#) for consultation. The consultation closed on 15 April 2022 and results are currently being analysed. STPR2 sets out the investment priorities for Ministers for the next 20 years. The sustainable travel and sustainable transport investment hierarchies (from our National Transport Strategy) were embedded into the appraisal process of this evidence based, objective led review of transport investment options.

The draft NPF4 sets out a series of spatial principles for Scotland 2045 including ‘local living’ and speaks of the creation of networks of 20 Minute Neighbourhoods to support local liveability, reduce the need to travel unsustainably, promote and facilitate walking, wheeling and cycling, improve access to services, decentralise energy networks and build local circular economies. As an integral part of this, cleaner, safer and greener places and improved open spaces will build resilience and provide wider benefits for people, health and biodiversity, in a balanced way. Virtual connectivity and active travel links will also be important. Consultation on the draft NPF4 closed 31 March. We are considering all responses to the consultation,

including those from the CCC and will lay a finalised NPF4 for approval by the Scottish Parliament before it is adopted by Ministers. Following its adoption, NPF4 will form part of the statutory development plan, the primary basis for decisions made through Scotland's planning system.

The Climate Xchange research published in 2021; [20 Minute Neighbourhoods in a Scottish Context](#), takes account of the differing settlement patterns across the country and highlighted place-based working as a key intervention that would support delivery of the concept.

In 2021 we began delivery of the Place Based Investment Programme where £325 million is to be invested over the next 5 years to support community-led regeneration and town-centre revitalisation, including the repurposing of buildings, maintenance and repairs, reallocating external space and community-led land acquisition. The programme aims to ensure that all place-based investments are shaped by the needs and aspirations of local communities and will help support a coherent approach to progress our 20 Minute Neighbourhood ambitions to achieve greener, and more inclusive growth, sustainable development across Scotland and to meet our net zero targets. Continued delivery of the Regeneration Capital Grant Fund (£25 m per year), Clyde Gateway (£5 m per year), and £140 m over 5 years for local government is included within the programme, to accelerate our shared ambitions for place, town centres, 20-minute neighbourhoods.

All of our work to redesign our communities, promoting innovative place-based solutions to reflect a new approach to local living, including 20 Minute Neighbourhoods, to support a green recovery, to improve overall levels of health and wellbeing, tackle issues around inequality, disadvantage and poverty, and increase climate resilience is supported by the alignment of policy drivers and investment including: Housing to 2040, Climate Actions Towns, the Infrastructure Investment Plan, Investment for Active Travel and the Work Local Challenge Programme and NPF4. New regional spatial strategies and local development plans can guide our future development and help to deliver infrastructure in a way that responds to the challenges of climate change together with the alignment, while established tools such as the Place Standard (and this will be strengthened with the forthcoming "Place Standard with a climate lens" toolkit) and emerging Local Place Plans will provide communities with the scope to set out how they see their places develop and improve in the future.

**2.2 Support the public transport and shared mobility sectors to recover from the COVID-19 pandemic. This should include providing positive communications and messaging to rebuild public confidence in the safety of public transport and maintaining financial support for the sector while confidence and demand are rebuilt.**

Timing: **2022**

Primary responsibility: **Joint with UK Government**

Scottish Government response: **accept**

Since the beginning of the pandemic we have taken actions to ensure our operators and delivery partners have continued to provide a safe and reliable transport system for those using our transport network. We have provided over £1 billion since the start of the pandemic to support transport operators including bus, rail, ferry, tram and subway operators to maintain essential services for those rely upon them. We also continue to:

- Provide up to date guidance and public messaging for those who operate and use our transport networks.
- Monitor and assess the demand for travel in order to support the evidence to adapt the transport system.
- Engage extensively with operators, stakeholders and delivery partners (transport operators, COSLA, regional transport partnerships, poverty groups, the Mobility and Access Committee for Scotland, business umbrella groups and academics) to work collaboratively on our response to and recovery from Covid-19.

In addition to this, we are supporting bringing people back to public transport through the establishment of the new free bus travel scheme, which offers free bus travel for young people under the age of 22 and resident in Scotland. The new scheme aims to encourage people to choose the bus as their mode of transport. The Scottish Government has also put in place the Network Support Grant (NSG) for bus services, which will provide £93.5 million in 2022-23 (including £40 million in recovery funding weighted to the recovery phase in the first part of the financial year) to protect services while passenger numbers recover.

To further support public transport, from April 2022 the Scottish Government has taken over direct management of the ScotRail franchise, previously owned by Abellio ScotRail. This investment not only makes a major contribution to keeping fares lower than they may be otherwise but ensures the continuation of support for rail services in Scotland.

To ensure that there is a viable and sustainable transport system for the future, the Scottish Government are taking forward a broad package of work. As part of this we are developing work to facilitate a safe and confident return to public transport as more people begin to travel between their home and their place of work, and as demand for leisure travel also increases. We are:

- Undertaking activities to promote a safe and confident return to public transport.
- Updating operator and passenger guidance to support safe provision and use of public transport services.
- Engaging with operators and delivery partners to promote safe behaviours and the measures required to support our recovery from Covid-19.
- Monitoring and assessing travel demand and identifying evidence of changes to travel behaviours and public transport demand that have become embedded due to COVID-19.

### **2.3 Where public transport services have been downgraded during the pandemic, a timetable should be published setting out when these will be restored to pre-pandemic levels or enhanced to support reductions in car travel.**

Timing: **2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **partially accept**

Public transport has a vital important role to play in achieving a just transition to net zero. The impact of COVID-19 is resulting in significant uncertainty on future transport trends – such as a reduction in public transport patronage. Our aim is to support a safe and confident return to public transport that not only supports recovery from the pandemic but also ensures there is a viable and sustainable public transport system for the future, recognising that even in the pre-pandemic period there was a decline in bus use.

While we don't accept the specific recommendation to publish a timetable setting out when services will be restored to pre-pandemic levels, we do agree that both the pre-pandemic and pandemic decline in bus use needs to be reversed to support a growth in bus patronage. It is important to recognise that there will be sustained shifts in travel demand, for example where there has been a move towards home working, in which case simply restoring the previous pattern of service would be poor value. Our aim is to improve our services to be better than before, as the eventual landscape will be different from what came before.

We are now taking forward a broad package of work to ensure that there is a viable and sustainable transport system for the future. As part of this we are developing work to facilitate a safe and confident return to public transport as more people begin to travel between their home and their place of work, and as demand for leisure travel also increases. We are:

- Undertaking activities to promote a safe and confident return to public transport.
- Updating operator and passenger guidance to support safe provision and use of public transport services.
- Engaging with operators and delivery partners to promote safe behaviours and the measures required to support our recovery from COVID-19.
- Monitoring and assessing travel demand and identifying evidence of changes to travel behaviours and public transport demand that have become embedded due to COVID-19.



Similarly, for rail we continue to support rail services for Scotland in a post-COVID context, but it is also appropriate that we respond to changing patterns of demand. For rail timetables, ScotRail completed a public consultation to inform its May 2022 timetable change. This has resulted in a reduction in overall services from pre-COVID timetable, which reflects the anticipated change in demand for the remainder of the year. This will stay under review and inform future timetable changes.

**2.4 Take concrete steps towards reducing costs of public transport in order to reverse the increasing relative price advantage of car travel over public transport. Providing free bus travel to those aged under 22 is a good step in this regard.**

Timing: **2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **partially accept**

We partially accept this recommendation as we have limited levers to influence the cost of motoring. We are taking concrete steps towards reducing the costs of public transport to the extent that our current financial position allows, noting the extremely tight fiscal environment that the Scottish Government is currently working within. However, the key levers which determine the cost of motoring – Fuel Duty and Vehicle Excise Duty - are reserved to the UK Government and outwith the Scottish Government's control.

The Scottish Government has taken concrete steps this year to reduce the cost of bus travel for young people by establishing the new free bus travel scheme for people under 22 and resident in Scotland. This new scheme complements the Older & Disabled Persons Free Bus Scheme, and between them the two schemes will provide nearly 50% of Scotland's population with access to free bus travel. The Scottish Government has also put in place a [Network Support Grant](#) (NSG) with £93.5 million in 2022-23 (including £40 million in recovery funding) to protect bus services while passenger numbers recover. This subsidy helps to keep fares at affordable levels and, for operators receiving additional recovery funding (NSG Plus), their fare increases are subject to a CPI cap.

With regards to rail, from April 2022 the Scottish Government has taken over direct management of the ScotRail franchise, previously owned by Abellio. ScotRail and Caledonian Sleeper services are currently almost entirely subsidised by Scottish Government and therefore by the taxpayer. This investment makes a major contribution to keeping fares lower than they may be otherwise. ScotRail is also required to cap fares increases on the majority of the fares on offer, and in addition ScotRail offers a series of lower fares schemes targeting, as an example, young people and students, ensuring they are affordable.

Our Fair Fares Review is part of the broader package of work being taken forward by Transport Scotland to ensure that there is a viable and sustainable transport system for the future. which will look at the range of discounts and concessionary schemes that are available on all modes including bus, rail and ferry and inform the



development of a sustainable and integrated approach to future public transport fares. It will take cognisance of the cost and availability of services, and will consider options against a background long term trend which shows that the costs of car travel are declining and public transport costs are increasing. The Fair Fares Review will be taken forward between now and end 2023.

We agree in our route map to achieving a 20% reduction in car kms of the need to ensure non-car options compare more favourably than car, for example in terms of convenience, attractiveness and cost. The current approach to motoring taxation has also been identified as a significant barrier to the decarbonisation of the transport sector. Fuel Duty and Vehicle Excise Duty are reserved to the UK Government and successive UK governments have frozen the rate of Fuel Duty each year since 2010, meaning motorists have benefitted from a significant tax cut in real terms. The need to address the cost of motoring is now widely acknowledged, with the revenues from Fuel Duty declining as the transition to lower emission vehicles continues. The UK Government also acknowledged the need for reform in its recent Net Zero Review. The Scottish Government will continue to engage the UK Government on the need for reform of existing taxes related to motoring and ultimately the design of successor taxes as historical, carbon-based revenue streams decline. This is essential for a tax system that incentivises the transition to zero emission vehicles, protects public finances by replacing declining revenue streams and helps fund interventions that support a shift towards healthier, fairer and more sustainable travel.

The Scottish Government is also, commissioning research that will provide a short-list of demand management options for further exploration and feasibility analysis, and will enable the development of a new Car Demand Management Framework by 2025. This will take into account the needs of people in rural areas and island communities as well as those on low incomes and people with Equality Act protected characteristics.

**2.5 Support the delivery of Scotland's transition to electric cars and vans. This will require ensuring sufficient supply of and demand for vehicles in Scotland to ensure that sales rise throughout the 2020 s to meet the 2030 phase-out commitment.**

- The Scottish Government should seek opportunities to influence consumers to choose fully electric vehicles over plug-in hybrids wherever possible.
- This transition should be supported by maintaining the provision of interest-free loans for EVs (now including second-hand EVs) on top of existing UK government grants. Plan for a transition to fiscally-neutral incentives as EV costs fall.

Timing: **2021-2030**

Primary responsibility: **Scottish Government**

Scottish Government response: **partially accept**

We are committed to supporting consumers to make the switch to zero emission vehicles through a range of programmes. This includes our Plugged In Communities programme which provides not-for-profit housing associations, housing cooperatives, constituted comment groups and community transport groups to apply for funding to

procure the services of zero emission car clubs and community transport vehicles. These vehicles can then be used by tenants and the wider community. Our funding towards decarbonisation of the public sector fleet funding will now only support zero emission vehicles and associated infrastructure.

We know that registrations of new ULEV cars, vans and buses continue to show year on year progress. The ChargePlace Scotland network also continues to grow and to date there are over 2200 charging points across the network. On 26 January we announced a new public electric vehicle charge point network vision as well as a new £60m fund that aims to double the size of the public charging network over the next few years.

The market for EVs has now developed sufficiently such that manufacturers and dealerships now have a range of financing deals in place to support this switch. As a result we need to consider if Scottish Government loan support to purchase a new EV is still required. To help to boost the emerging second hand EV market and support the uptake of EVs amongst lower income households, we will continue to provide loan funding for used EVs.

## **2.6 Continue to support the timely expansion of Scotland's public EV charge point network, to ensure the EV transition works for all road users in Scotland with well-maintained facilities, inter-operability between service providers and avoidance of market power.**

Timing: **Now & ongoing**

Primary responsibility: **Joint with UK Government**

Scottish Government response: **accept**

On 26 January 2022 in Parliament we announced a draft vision for Scotland's public charging network – to ensure that the people of Scotland will have access to a comprehensive and well-designed network of public charge points meeting everyone's needs. Working with V&A Dundee to help design a network where consumer needs will be placed at the centre of the future EV charging experience, ensuring that drivers not only have ready access to well-designed accessible charge points throughout the country, but that pricing is also fair and transparent. To support achieving this Vision we also announced a new £60m EV infrastructure Fund (£30m from Scottish Ministers) to work alongside private sector investment to grow and develop the charging network in Scotland.

The latest digital innovations will be utilised to help drivers with efficient journey planning as well as benefit from smart charging capabilities. There will be better consumer choice due to leveraging greater commercial involvement in the growth of public charging as well as the ability for drivers to easily roam between different charge point networks thanks to interoperability and open data sharing between networks.

Work is also continuing with the Scottish public sector to consider and develop innovative financing approaches which will see the public sector act as an anchor for public EV charging, blending the requirements of public sector fleets with broader public demand, ensuring public funding is utilised optimally with maximum return on investment.

The draft NPF4 spatial strategy supports the roll-out of electric-vehicle infrastructure. Consultation on the draft NPF4 closed 31 March. We are considering all responses to the consultation, including those from the CCC and will lay a finalised NPF4 for approval by the Scottish Parliament before it is adopted by Ministers.

The Scottish Government is currently carrying out a phased review of Permitted Development Rights (PDR) in Scotland. PDR grants planning permission for certain types of development through national legislation, meaning they can be carried out without an application for planning permission having to be submitted to, and approved by, the relevant planning authority. Phase 2 of our review programme will consider the case for extending existing PDR for EV charging infrastructure. A public [consultation](#) on our Phase 2 proposals was published on 11 May.

## **2.7 Implement schemes to reduce use of internal combustion engine buses, HGVs and vans in urban areas (e.g. through use of electric buses, e-cargo bikes and urban consolidation centres), to reduce traffic, improve air quality and increase the safety of active travel.**

Timing: **2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **accept**

A range of work is underway to achieve this outcome, although our efforts are aimed at urban and rural areas, not just urban areas. For example, with regards buses, we have in place the Bus Partnership Fund, support for free bus travel amongst the under 22s, the Bus Decarbonisation Taskforce, and the Zero Emission Bus Challenge Fund.

With regards HGVs:

- we are working to shift freight from road to rail where feasible, facilitated by our rolling programme of efficient electrification on key rail routes and regulatory targets to incentivise Network Rail to promote freight growth
- we have established a Zero Emission Truck Taskforce (first meeting 4<sup>th</sup> May 2022) which will meet over the coming year to agree a pathway to fully zero emission HGVs in Scotland
- we have in place a HDV Programme with Scottish Enterprise to explore supply chain opportunities, and we are working with UKG on zero emission HGV trials

Aspects of this recommendation relating to vans are covered at Recommendation 2.5 and we also provide support for the purchase of cargo bikes. We will work with stakeholders to develop a vision for the decarbonisation of last mile delivery in

Scotland, which contributes to and draws on work across Scottish Government and the private sector.

### 3. Aviation and Shipping

**3.1 Assess airport capacity in the context of Net Zero. There should be no net expansion of airport capacity unless the sector is on track to sufficiently outperform its emissions trajectory and can accommodate the additional demand. A demand management framework will need to be developed (by 2022) and be in place by the mid-2020s to annually assess and, if required, control sector GHG emissions and non-CO2 effects.**

Timing: **2022**

Primary responsibility: **Joint with UK Government**

Scottish Government response: We cannot currently accept.

The update to our Climate Change Plan was designed with green recovery at its heart, both in its key themes and in specific policy announcements. This sets out the Scottish Government's pathway to the ambitious targets set by the Climate Change Act 2019, and includes domestic and international aviation. In the latest version of the plan we have committed to work to decarbonise scheduled flights within Scotland by 2040 and to work with the aviation industry to restore and grow our international connectivity while not returning to previous levels of emissions.

In the short term, sustainable aviation fuels (SAF) have the potential to significantly reduce the environmental impact of aviation. Longer term hydrogen/electric aircraft could play an important role. In our recent consultation to inform the development of an Aviation Strategy, we asked for views on how we can help accelerate the transition to low and zero-emission aviation, recognising the importance of air travel to Scotland's economy and society and the need to reduce the environmental impact of aviation. The responses to the consultation, alongside other relevant evidence and wider Scottish Government policy, will inform decisions on the final content of the strategy.

**3.2 Take steps to address price imbalances between aviation and surface transport, once aviation taxation is devolved to Scotland, encouraging the low-carbon alternative (e.g. rail) for journeys where one exists.**

Timing: **2022**

Primary responsibility: **Scottish Government**

Scottish Government response: We cannot currently accept.

We welcome the Climate Change Committee's recognition of the important role that air services play in providing connectivity to our island communities, allowing people to access services and helping to deliver our National Islands Plan. Scotland's geography means that air travel plays an important role in providing connectivity within Scotland and to other parts of the UK, with most people choosing to fly over other forms of transport because it is quicker ([Scottish Household survey](#)).

Scottish Government is therefore focusing on (i) supporting and facilitating greater use of rail where this is a viable alternative; and (ii) working with the aviation industry to reduce the environmental impact of air travel, including decarbonising scheduled passenger services within Scotland by 2040. We are also continuing to work with the rail industry to reduce journey times, and have consistently supported high-speed rail, but not just to Birmingham, Manchester and Leeds. We know that to realise its full benefit for all of Britain, high-speed rail infrastructure needs to be extended 'further and faster' to reach Scotland.

Introduction of the devolved Air Departure Tax (ADT) has been deferred to allow the issues raised in relation to the Highlands and Islands exemption to be resolved. We will continue to work with the UK Government to find a solution for aviation that remains consistent with our climate ambitions. The UK Government will maintain the application and administration of APD in Scotland in the interim.

As Scottish Ministers are responsible for the current franchise delivered by Serco, we continue to support and promote our Caledonian Sleeper rail services that connect Scotland with London and offer an alternative to air. There are a range of cross border rail services managed by the UK Government's Department for Transport and last year a new service from Edinburgh to London was introduced by Lumo Trains which offer lower fares alternatives.

### **3.3 Play a leading role in decarbonising the shipping sector by exploring opportunities to transition ferries operated by Transport Scotland to low-carbon energy and establishing appropriate business models to encourage their adoption.**

Timing: **Now & ongoing**

Primary responsibility: **Scottish Government**

Scottish Government response: **partially accept**

Scottish Government partially supports this recommendation. The Scottish Government included in our updated Climate Change Plan a commitment to have 30% of the Government-owned ferry fleet consisting of low or zero emission vessels by 2032, and although ferries can be considered to play a minor part of overall shipping emissions (Domestic ferries make up 1.7% of Scottish transport emissions and less than 1% of total emissions), reducing emissions is one of our priorities.

The Scottish Government has also committed to supporting the decarbonisation of shipping globally, where Scotland is one of the few nations which includes international shipping and aviation in our emissions inventory. The updated Climate Change Plan sets out our commitment to work with the UK Government to support proposals at the International Maritime Organisation (IMO) to significantly lower shipping carbon emissions in the global sector.

## 4. Manufacturing and construction

### 4.1 Continue to support innovation and demonstration of technologies for decarbonising manufacturing and construction; ensure that learning is disseminated as widely as possible within industry.

Timing: **2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **accept**

There are a range of Scottish Government programmes, infrastructure and funding measures designed to support such innovation/demonstration. The Making Scotland's Future Programme has low carbon and sustainably embedded in each of its 8 work streams with the ongoing ambition to align supply chains to new low carbon market opportunities and develop low carbon technologies. NMIS will be at the heart of efforts to foster low-carbon economic growth and sustainability with partners and industry.

Additionally we have also created a new £26m Low Carbon Manufacturing Challenge Fund to support innovation in low carbon technology, processes and infrastructure. This competitive fund is being co-designed and developed with Scottish Enterprise, who will also administer the Fund through their calls process. The Fund will be open to any business in the manufacturing sector and provide R&D funding for projects that result in increased product circularity, reduced waste during the manufacturing process and reduced carbon.

Michelin Scotland Innovation Parc (MSIP) is a highly targeted intervention directed specifically at the development and exploitation of Sustainable Mobility and Low Carbon Energy technologies. Its ambition is to develop next-generation mobility solutions, secure their manufacture, create an indigenous supply chain and demonstrate the innovation capacity of Scotland to address the Climate Emergency. MSIP's Skills Academy will bring skills and knowledge from Dundee and Angus college and Universities of Dundee, Abertay and St Andrew's together with industry, to deliver new skills, for new technologies. It will offer dedicated skills training to current and future employees of companies located at MSIP and across industry, through a comprehensive range of training focused on the skills needs of companies. The curriculum and delivery style of the MSIP Skills Academy will inspire new generations of engineers, technicians and operators to design and manufacture for the sustainable mobility and decarbonisation sectors.

COP26 provided a global stage for Scotland to showcase the leadership, technologies and innovation that will help on the road to achieve our target of Net Zero by 2045. MSIP demonstrated the value of public and private sectors working together collaboratively towards a common goal to ensure a just transition for businesses and the promotion of economic growth.

At COP26, the Scottish Government and Michelin announced the Net Zero Industrial Cluster Exchange (NICE). The NICE network will provide a forum to share policy, practice and learning across countries and industries. The network will provide comparative information and insights on regional/local industrial clusters and

industrial transformation initiatives that seek to achieve low carbon, net zero or carbon negative processes. The aim is that this will be formally launched in Spring 2022.

Scottish Government works closely with the Construction Scotland Innovation Centre. As partners and delivery agents, CSIC is playing a key role in pursuing this agenda, and working with stakeholders right across the built environment to support recovery, innovation and modernisation of the sector. This includes delivering free low carbon construction training through the Low Carbon Learning programme funded by the National Transition Training Fund, and supporting game-changing research into the potential for using home-grown mass timber in construction through the Transforming Timber initiative.

#### **4.2 Implement policies to enable delivery of substantial improvements in industrial energy efficiency.**

Timing: **2022**

Primary responsibility: **Joint with UK Government**

Scottish Government response: **accept**

In October 2018, the UK Government announced plans, as part of the Industrial Strategy, to establish an Industrial Energy Transformation Fund (IETF), providing up to £315 million until 2024. This is part of a package of support for decarbonising energy-intensive industries alongside the Industrial Clusters Mission, and Climate Change Agreements. During 2020, Scottish Ministers announced their intention to administer a separate fund, and subsequently increased the amount received as Barnett consequential from the UKG by 30%, to make more funds available for Scottish industries.

A distinct fund allows flexibility towards the specific characteristics of Scotland's industrial base, during this particularly challenging period, to proceed on the journey towards net-zero emissions by 2045.

The £34m Scottish Industrial Energy Transformation Fund (SIETF) supports Scottish manufacturers with high energy use to transition to a low carbon future and to reduce energy costs and emissions through increased energy efficiency. Through calls for projects it provides match-funded grants to: (1) deploy technologies that improve the energy efficiency of industrial processes, and (2) carry out feasibility & FEED studies into energy efficiency or deeper decarbonisation, such as fuel switching.

The SIETF has begun to grant payments to co-invest with to a diverse range of manufacturers to reduce energy emissions through increased process efficiency. Funding to leverage more asset-based private investment, including for deeper decarbonisation through fuel switching, will continue until 2026.

Scottish Government will keep the scope of incentivisation funding under review to: increase effectiveness in supporting a pipeline of projects, to monitor performance against GHG targets; and liaise with UK Government counterparts on making the case for increased resources to support industrial energy efficiency.



#### **4.3 Work with business to encourage and enable consumers to share, lease and use products for longer whilst discouraging ‘disposable’ business models.**

Timing: **2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **accept**

While this work is, necessarily, continuous and ongoing, we aim to deliver a significant change by the end of 2023. The Scottish Government already helps to fund a new national network of community sharing libraries and repair cafes as part of a drive to reduce consumption and cut waste. Under the £310,000 reuse and repair scheme, funded jointly with Zero Waste Scotland, more resource libraries will be established across Scotland - a key recommendation of Scotland’s Climate Assembly. The facilities allow people to borrow items such as high quality tools, equipment, clothes and toys rather than buying them.

In the first half of 2022, we will introduce a new £2 million Textile Innovation Fund, to support businesses working in this sector to address issues associated with textile waste and throwaway culture. When the fund goes live, Zero Waste Scotland will consider applications from across all sectors for projects that will reduce aspects of textile waste, contribute to Scotland’s overall waste reduction targets and reduce overall consumption.

More generally, Zero Waste Scotland, which is partially funded by the Scottish Government, already undertakes work in this area [How we're supporting the circular economy | Zero Waste Scotland](#). The Retail Strategy [Getting the Right Change – retail strategy for Scotland - gov.scot \(www.gov.scot\)](#) will also be relevant for achieving this aim.

We support the principles of the EU Sustainable Products Initiative which aims to make products placed on the market more sustainable. Ultimately, consumers, the environment and the climate will benefit from products that are more durable, reusable, repairable, recyclable, and energy-efficient. This is an emerging area of policy development and we recognise that many issues, such as elements of product standards and labelling and consumer protection, are reserved.

#### **4.4 Improve the collection and reporting of industrial decarbonisation data to allow for progress to be monitored more effectively, particularly on energy and resource efficiency.**

Timing: **2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **partially accept**

Efforts to improve the collection and reporting of industrial decarbonisation data are ongoing, and we are working with SEPA and BEIS, through the ETS and other schemes to better understand what data is available and what data can be obtained. The advice to only partially accept the recommendation is due to the fact that certain elements of industrial data on fuel use and efficiency can be considered

commercially sensitive, and although it may be possible to obtain and analyse this data, there could be certain limitations as to how this data could be used and reported. This is a particular sensitivity in Scotland where it is more difficult to aggregate results by sector, due to a low number (sometimes only 1 or 2) sites per sector.

**4.5 Develop policies to drive more resource-efficient construction and use of existing low-carbon materials. This should include setting out a plan for phasing in mandatory whole-life reporting followed by minimum whole-life standards for all buildings, roads and infrastructure by 2025, with differentiated targets by function, scale, and public/private construction.**

Timing: **2022**

Primary responsibility: **Joint with UK Government**

Scottish Government response: **partially accept**

The draft NPF4 included NPF4 Universal Policy 2 'Climate Emergency'; that policy is clear that: all development should be designed to minimise emissions over its lifecycle in line with the decarbonisation pathways set out nationally; and that development proposals for national, major and development requiring Environmental Impact Assessment should be accompanied by a whole-life assessment of greenhouse gas emissions from the development. Policy 20 'Zero Waste' is clear that all development should aim to use materials with the lowest forms of embodied emissions, that material should be suitable for reuse with minimal reprocessing, and encourages the use of previously used, sustainable, local, recycled and natural construction materials that also store carbon. Consultation on the draft NPF4 closed 31 March. We are considering all responses to the consultation, including those from the CCC and will lay a finalised NPF4 for approval by the Scottish Parliament before it is adopted by Ministers. Following its adoption, NPF4 will form part of the statutory development plan, the primary basis for decisions made through Scotland's planning system.

In terms of road works policy, the use of in-situ recycling and lower carbon materials is already encouraged under the existing framework. Current legislative reform is looking at simplifying the process of trailing lower carbon materials, and on reduced vehicle movements as part of a 'right first time' model. The monitoring and review of this area is undertaken by the Scottish Road Works Commissioner. One of these reforms, the Reinstatement Quality Plan requirement, is currently in the process of being put into secondary legislation, but was 'soft launched' as a voluntary process in January 2022. The Commissioner requires these plans to have a robust 'environmental sustainability' section to gain his approval, which is necessary to continue to undertake works in Scotland's roads.

The waste and recycling route map, due to be published in May 2022, will include a focus on construction including resource efficiency.

Scotland's Climate Assembly recommended that we take into account the whole life carbon costs and environmental impact of new homes (recommendation 7), new and existing non-residential buildings (recommendation 9) and existing homes (recommendation 11). In [our response to the recommendations of the Assembly](#), we

noted that, whilst the issue of whole life carbon costs is not currently addressed by building regulations in Scotland or, indeed, anywhere in the UK, we recognised the benefit of any action which raises awareness of the broader environmental impact of development and influences development decisions. We committed to investigate opportunities for whole life emission reporting, through building regulations or by other means and proposed to provide an update on this before the end of 2022.

#### **4.6 Renew efforts to improve resource efficiency, recycling and waste prevention, including by:**

- **Bringing forward the planned circular economy package for legislating within the forthcoming Programme for Government**

Timing: **2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **accept**

PfG already commits us to bringing forward a Circular Economy Bill. Consultation planned for May 2022, expect legislative timetable to be announced in next PfG.

- **Ensuring key policies, such as Extended Producer Responsibility are on track to be in place well before 2025**

Timing: **2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **accept**

This recommendation is vague but in line with our PfG and CCPu commitments we are developing a route map to accelerate progress to meet our 2025 waste reduction and recycling target in a way that maximises carbon savings. The consultation on our route map is due to be published in May 2022, alongside the consultation on a circular economy bill. We are working with the other UK administrations to bring in extended producer responsibility for packaging from 2024.

Our Deposit Return Scheme will be live from August 2023.

- **Working with the waste sector and local authorities to set out a route-map detailing the policy and support needed to ensure the 2025 waste prevention and recycling targets (including the 70% recycling target) are delivered, and setting new ambitious targets for 2030.**

Timing: **2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **accept**

This recommendation is in line with our PfG and CCPu commitment to develop a route map to accelerate progress to meet our 2025 waste reduction and recycling target in a way that maximises carbon savings. Work to develop the route map over 2021 included pre-consultation workshops with local government and waste sector to

understand the challenges/barriers to progress, identify opportunities, harness expertise and test assumptions.

As part of the development of the route map, due consideration is being given to post-2025 measures, including targets for the period to 2030 and beyond to ensure the waste sector fully plays its part in emissions reduction.

The consultation on our route map is due to be published in May 2022, alongside the consultation on a circular economy bill.

## 5. Fuel supply

**5.1 As part of the planned update to the Energy Strategy, and supported by the proposed new National Public Energy Agency, formalise the planning process, governance framework and timeline for decisions on infrastructure for the conversion to hydrogen of the gas transmission and distribution networks. Alongside this, identify priority candidate areas for hydrogen conversion and areas which are unlikely to be suitable to hydrogen conversion (such that electrification and alternatives can be prioritised), ensuring consistency with least-regret forward views on demand for hydrogen within Scotland and across the rest of the UK.**

Timing: **Q4 2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **partially accept**

Our policies are aligned with the execution of this action; however, we can only recommend partial acceptance of this action as regulation of the gas network is a reserved competence for the UK Government.

As such, we will continue to work with the Gas Network Operators and the UK Government to explore opportunities for increasing the blend of hydrogen in the gas network. We also continue to urge the UK Government and regulator to expedite changes to regulation to facilitate greater levels of gas blending.

As committed in our [Heat in Building Strategy](#) and our [Hydrogen Action Plan](#), we will continue to work with the gas network sector and the UK Government to explore opportunities for blending hydrogen in the gas network. We continue to keep under review the benefits and cost-effectiveness of increased hydrogen blending at GB-level, including in terms of the wider energy system and supply chains.

We are actively exploring where in Scotland hydrogen might ultimately be most appropriate for heating homes and buildings and we are using this evolving understanding to guide our approach. We will set out more detail on the pathways to decarbonised gas and options for hydrogen in the net zero transition in our Energy Strategy and Just Transition Plan

Additionally, as committed in our Hydrogen Action Plan, we are currently undertaking a strategic review working with stakeholders, including network companies, local authority and delivery partners, to identify regions and areas most likely to have access to hydrogen in the future, and considered high-potential areas for the use of hydrogen for heat in Scotland.

**5.2 Together with UK Government, review existing – and, if necessary, develop new – schemes that support the sustainable production of biomass feedstocks and conversion of bioenergy in a way consistent with Net Zero. This should include dates beyond which new facilities should be built with CCS, and dates for when CCS will need to be retrofitted to biofuel facilities already in operation.**

Timing: **2023**

Primary responsibility: **Joint with the UK Government**

Scottish Government response: **partially accept**

### [Bioenergy Action Plan](#)

The Scottish Government's aim is to see bioenergy used where it has the greatest value in reducing emissions. We are currently working to review the availability of sustainable biomass and the most appropriate use of these finite resources across the whole energy system in Scotland. We intend to publish a Bioenergy Action Plan in 2023 and are engaging with UK Government as they develop their Biomass Strategy this year.

#### Planting Sustainable Biomass Feedstock's

The forthcoming Scottish Agriculture Bill will set out the framework for increased conditionality of farm payments, to ensure more farmers are supported and encouraged to improve efficiency and environmental practices. Future support will incentivise climate mitigation and adaptation actions to increase the resilience of Scotland's agriculture sector and domestic food supply. We will support a transition away from extractive agriculture, to sustainable, regenerative agriculture that supports biodiversity, reduces emissions and sequesters carbon. We will support biomass crops where appropriate.

#### Conversion of Bioenergy in a way that is consistent with Net Zero

We see a limited role for bioenergy in heating, in line with advice from the UK's Climate Change Committee. We recognise that there may be a small number of buildings for which bioenergy, in particular bio heating oil, bio LPG and biomass, may represent the only practicable option for heat decarbonisation and so could be considered for exemptions from zero emissions requirements.

By 2030, we would like at least 20% of the volume of the gas in the GB gas grid to be alternatives to natural gas. Biomethane currently contributes 716 GWh to the Scottish grid but could increase to around 1.4 TWh. Conversions of Bioenergy in a way that is consistent with Net Zero will require CCS technology. The Scottish Government does not hold all the necessary legislative and regulatory levers needed to stand up a CCS cluster alone, UK Government support including access to BEIS business revenue support, underwriting of liabilities and access to an economic licence is essential to providing the certainty and support required to accelerate CCS in Scotland. Given the criticality of CCS the Scottish Government has already engaged with the UK Government to press for greater clarity and to work collaboratively with them to find solutions to accelerate the development of the Scottish Cluster and the deployment of CCS in Scotland, and will continue to do so.

The UK Government has committed to supporting four CCS clusters in the UK by 2030 at the latest. However, it has yet to set out the timetable for the Track-2 of its cluster sequencing process, through which it will announce the remaining two CCS clusters to be progressed with UK Government support. Until this clarity is forthcoming the Scottish Government is not able to identify a cut-off point and determine the need to plan for emissions reductions without the technology. The Scottish Government continues to press for greater and immediate clarity on the Track-2 timetable to give this much needed clarity and certainty.

## 6. Buildings

**6.1 Clarify the allocation of the £1.8 billion of funding, making clear what amounts will go towards heat networks, heat pumps and energy efficiency measures and how these relate to the targets set in the Heat in Buildings Strategy for low-carbon heating and heat pumps.**

Timing: **2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **partially accept**

The majority of Scottish Government schemes are demand-led with significant flexibility built in to allow measures to be tailored to individual properties, providing a degree of choice to households. For example, the [Social Housing Net Zero Heat Fund](#) will provide grant funding for a range of heating and energy efficiency measures and is not just constrained to individual technologies like solid wall insulation or heat pumps. The same is true for the Home Energy Scotland Loan and Cashback scheme which provides flexibility for home owners to install measures of their choosing.

The exception to this is the recently launched [Heat Networks Fund](#), which allocates £300 million of investment to support the growth and expansion of new and existing heat networks.

The latest published allocations across SG schemes is set out in the following table. However, it should be noted that the full £1.8 billion has not yet been fully allocated. This provides a degree of flexibility across budgets in future years to respond to demand.

| <a href="#">Heat in Buildings Delivery Scheme</a>                                | <a href="#">Indicative Allocation</a> |
|--|---------------------------------------|
| Least Able to Pay delivered via the Area Based Schemes and Warmer Homes Scotland | £465 million                          |
| Social Housing Net Zero Heat Fund  | £200 million                          |
| Scotland's Heat Networks Fund  | £300 million                          |
| Scottish Green Public Sector Estate Decarbonisation Scheme                       | £200 million                          |



**6.2 Publish a monitoring and evaluation framework for the Heat in Buildings Strategy by summer 2022, or provide additional indicators in the annual climate change plan monitoring reports. These should include clear indicators for annual heat pump and low-carbon district heat network roll-out across residential and non-residential buildings. Use the development of the framework to identify data gaps and make plans to address them. Track implementation and its costs and use information in updates of the Strategy. For data on heat networks, BEIS should provide relevant data until implementation of the Heat Networks (Scotland) Act.**

Timing: **2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **accept**

We committed in the Heat in Buildings Strategy to develop a monitoring and evaluation framework, setting out:

- a comprehensive framework for monitoring progress against the objectives set in the Strategy covering homes, work places, public sector buildings and other non-domestic buildings.
- a range of output and outcome indicators, linked to our outcomes, to inform an annual statement of progress, taking account of the Climate Change Plan monitoring framework, as well as statutory monitoring and evaluation requirements on fuel poverty.

The Scottish Government aims to prepare the framework for monitoring and evaluation for publication this year. We are grateful to the committee for recommending specific indicators and through development of the framework will set out indicators for which data is available, and consideration of data gaps.

**6.3 Make concrete progress on implementing the roadmap for energy efficiency and low- carbon heating improvements set out in the Heat in Buildings Strategy in 2022. This should include:**

- **Developing EPC regulations for the private rented sector and owner-occupiers**
- **Reviewing the EESSH2 standard for the social housing sector**
- **Developing an ambitious plan for zero-emission heating and energy efficiency in large non-residential buildings, based on the consultation(s) planned for 2022 on strengthening regulations for non-residential building heat supply and demand**
- **Setting out clear plans for how the late backstop date (2040-45) for mixed tenure buildings energy efficiency will be consistent with wider heating emissions targets for Net Zero.**

Timing: **2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **partially accept**

We are making progress on developing all aspects of the regulatory framework we set out in the Heat in Buildings Strategy, and will consult on these over the coming year.

Non-domestic: we're investigating the most appropriate regulatory approach to convert Non-domestic Buildings to Zero Direct Emissions Heating: specifying a list of measures, setting an EPC standard, or regulating using actual energy consumption (operational ratings). Our Call for Evidence 1 on the three broad options closed at the end of February and we intend to consult in more detail later in 2022, with a view to introducing regulations in 2025, as set out in the Heat in Building Strategy.

Public Sector: The Heat in Buildings Strategy commits the Scottish Government to consult the Scottish public sector during 2022 to develop and agree a series of phased targets with increased funding available to support delivery of these targets – starting in 2024, with the most difficult buildings like hospitals being decarbonised by 2038 – for all publicly owned buildings to meet net zero emission heating requirements by 2038.

Domestic (Private Rented Sector and Owner Occupied Sector): Following previous consultations on minimum energy efficiency standards for owner-occupied and private-rented homes, we are now working towards introducing primary legislation, subject to consultation and to limits on devolved competence, that provides the regulatory framework for both energy efficiency and zero emissions heating, and underpinning powers to support this transition and the wider Heat in Buildings programme. We will consult on our proposals in more detail in the coming year.

Domestic (Social Rented Sector): The Scottish Government is committed to reviewing the Energy Efficiency Standard for Social Housing to ensure it is aligned with the net zero targets. Details of the next review will be announced shortly.

Mixed tenure:

Joint responsibility for common works in Mixed Owner Mixed Use (MoMu) buildings is a challenge to coordinating heat and energy efficiency retrofit. There is currently a Tenement Law Reform Project being undertaken by the Scottish Law Commission which will consider changes to the law in order to establish compulsory owners' associations for tenement properties.

MoMu building archetypes vary significantly and therefore assessments and recommended intervention measures to improve energy efficiency will need to be appropriate, cost effective and technically feasible for each. We have established a Short Life Working Group, made up of surveyors, architects, academia, local authorities and building experts, to consider and make recommendations on individual flat level and whole building level assessment methodologies for a range of archetypes. These recommendations will allow us to consult upon how to phase our regulations for energy efficiency and zero emissions heat in MoMu buildings ahead of the cooperative framework that compulsory owners' associations would deliver. This approach will ensure maximum effort using all the powers available at particular points in time, building up from initial measures which could be legally required at individual flat level from the outset of regulation, towards ultimately 'whole building' measures by the time the Tenement Law Reform Project is complete. This

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<sup>1</sup> [Energy efficiency - regulation in existing non-domestic buildings: call for evidence - gov.scot \(www.gov.scot\)](https://www.gov.scot/resources/documents/2022/02/energy-efficiency-regulation-in-existing-non-domestic-buildings-call-for-evidence)

group will also provide views on support and delivery requirements and potential financing mechanisms to be fed into the Green Heat Finance Taskforce.

**6.4 Ensure recommendations on buildings are implemented from the Adaptation Committee's upcoming report on adaptation progress in Scotland, due to be published early 2022.**

Timing: **2024**

Primary responsibility: **Scottish Government**

Scottish Government response: **this will be kept under review as the Scottish Government's response to the updated UK Climate Change Risk Assessment 2022 is developed.**

The CCC's independent assessment of adaptation progress in Scotland was published on 15 March 2022, this included 15 built environment recommendations. An initial response to the CCC's independent assessment has been published as part of the 2022 annual report to the Scottish Parliament on progress to the current Scottish Climate Change Adaptation Programme. All CCC sector-specific recommendations on adaptation are under active review and will inform the Scottish Government's wider approach to responding to the updated UK Climate Change Risk Assessment 2022.

**6.5 Following the publication of the UK Heat and Buildings Strategy in October 2021, UK Government and Scottish government should now coordinate on harnessing UK proposals for a market-led mechanism for heat pump roll-out. The UK Government should confirm how Scotland will be enabled to appoint a regulator for heat networks**

Timing: **2022**

Primary responsibility: **Joint with UK Government**

Scottish Government response: **partially accept**

**Market Led Mechanism**

The Scottish Government is engaging closely with the UK Government on the development and design of a new market-based mechanism to boost heat pump deployment and drive investment and innovation. This will involve extensive official-level and Ministerial engagement on the proposals set out in the BEIS Consultation paper and subsequent information within the BEIS response paper to the consultation, published on 11 May 2022. We have welcomed the aim of the Mechanism to incentivise growth of the heat pump market, which will complement the Scottish Government's ambitious policy package for heat decarbonisation and our intention to regulate for zero emissions heat. Given that the provisions of the Mechanism are likely to cut across reserved and devolved competencies, we are working closely with BEIS to develop the proposal further. We urge the UK Government to ensure the mechanism is developed in a manner that aligns with the devolution settlement, and supports the pace of heat decarbonisation we need to see in Scotland.

## Heat Networks Regulator

The Scottish Government continues to engage with both BEIS and Ofgem on GB wide consumer protections to ensure their interoperability with the requirements of The [Heat Networks \(Scotland\) Act 2021](#). Scottish Ministers' proposal to achieve this, by UK Government devolving consumer protection powers to Scotland, was turned down. While Scottish Ministers already have the power to appoint a licensing authority, consent authority and permit authority under the Act, they do not have the powers to appoint Ofgem, as a UK body, directly. We are therefore calling on the UK Government to appoint Ofgem as the heat network licensing authority in Scotland, ensuring they take into account Scottish Ministers policies and statutory guidance when making licensing decisions in Scotland. It is critical that this arrangement with Ofgem provide Scottish Ministers with the information required to allow progress against Scottish targets for heat networks to be monitored and to support heat network policy development in Scotland. A combined licensing and authorisation body will support a seamless and simpler experience for the industry and consumers.

### **6.6 Ensure that Scottish Government Buildings Standards enable monitoring and compliance and ensure that local authorities are properly funded to enforce buildings standards.**

Timing: **2023**

Primary responsibility: **Scottish Government**

Scottish Government response: **partially accept**

The Scottish Government Building Standards Futures Board was set up at the beginning of 2019 to provide guidance and direction on the development and implementation of recommendations made by the Review Panels on Compliance and Enforcement and Fire Safety. The Review Panels were formed by the Ministerial Working Group on Building and Fire Safety following failings in the construction of Edinburgh School Buildings and the fire at Grenfell Tower, London.

The Futures Board is an ambitious and broad programme of work aimed at improving the performance, expertise, resilience and sustainability of the Scottish building standards framework and services across Scotland.

Work streams are being taken forward by Building Standards Division, Scottish Government, involving a range of stakeholders from construction industry organisations, professional and public bodies including Scottish Futures Trust, Skills Development Scotland, Universities and local authorities (through Local Authority Building Standards Scotland - LABSS).

As part of the compliance work stream a public consultation on a Compliance and Enforcement was published in November 2021 and closed on 9th February 2022. The [analysis](#) of the consultation responses was published on 12 May 2022. The analysis indicated an overwhelming level of support for proposals to create a strengthened Compliance Plan approach to the building standards system with enhanced oversight and enforcement powers. In terms of funding, research is being undertaken under the Delivery Model work stream of the Futures Board to consider building warrant fees. This project will examine the level of fees currently in the

system and identify where there is a need for change to ensure that proposals that come forward from the work of the Futures Board are appropriately funded.

**6.7 Develop plans for in-use performance rating of buildings. Make accurate performance testing and reporting widespread, committing developers to standards. This can be achieved in homes by rolling out digital Green Building Passports across the stock .**

Timing: **2023**

Primary responsibility: **Scottish Government**

Scottish Government response: **partially accept**

**In-use performance rating of buildings**

We are not considering actual energy use as a metric for domestic EPCs at this stage. The EU's X-tendo project has completed some research into this option in recent years, and it is developing as a policy option, however it would require every home to have a suitable smart meter. This is not currently feasible or cost effective. We are about to complete our own research into domestic EPC metric options, and this is due to report in September 2022.

For non-domestic buildings, one of the regulatory options being investigated is using operational ratings (another name for in-use performance) based on actual energy consumption. We are engaged with the UK Government who have consulted on introducing an operational ratings scheme for offices over 1000m<sup>2</sup> in England. Given the diversity of the non-domestic building stock and how the buildings are used, EPCs based on modelled building performance are less useful than in a domestic setting. The actual energy use within a non-domestic building varies depending on what the building is used for, therefore regulating on actual energy data is likely to be more appropriate to reduce emissions.

**Performance Testing**

The review of energy standards within Scottish building regulations for 2022 proposes the expansion of airtightness testing for new buildings and the commissioning of new building services. It also proposes the development of a more detailed and evidence-based compliance regime. The focus of building standards work is therefore on improving assurance that buildings will be designed and specified on an informed basis, with key decisions properly risk-assessed and proposals constructed correctly to achieve the intended function or performance. This forms part of our broader 'Compliance Plan' work being developed under the oversight of the Building Standards Futures Board. At present, there are no plans to introduce further performance testing, post-occupancy evaluation or in-use reporting via Scottish building regulations. New-build compliance will still be demonstrated on the basis of a design stage calculation, with verification of construction to that design on completion of works.

**Green Building Passports (GBPs)**

We recognise the importance of building owners, tenants or prospective purchasers having an accurate record of works that have been undertaken to improve a building's energy performance or to reduce emissions from its heating system, and

will consider how to do this as part of our proposed consultation on regulations, taking into account the Committee on Climate Change's recommendation.

The recommendation suggests that to achieve the first two parts (in-use performance rating and building regulations) GBPs should be rolled out across Scotland. In fact, GBPs are documents that provide information on a building, such as EPC rating, previous renovations or extensions and water efficiency etc. They are not documents that will necessarily contain or carry out in-use performance measurement of a building's performance or make reporting of this wide-spread.

However, the Scottish Government is considering whether GBPs might be useful and has commissioned research through ClimateXChange to review learning from existing GBPs across Europe.

We have also approved a joint bid being developed by EST and others in the EU for inclusion the EU's Horizon project. If successful, it will consider the practical use of GBPs (EST will test specific data needs). The research will take approximately four years. We are at the early stages of considering the suitability of GBPs. For these reasons, SG has yet to reach a final policy position on GBPs and therefore we would not want to commit to rolling them out across the stock at this stage. We would be able to commit to considering them as an option.

**6.8 Roll out Local Heat and Energy Efficiency Strategies (LHEES) across all local authorities, providing sufficient capacity and financial support to local authorities to ensure LHEES delivery plans are produced based on meaningful engagement with stakeholders, are effective tools in coordinating planning and investment for low-carbon heat, and are based on an evidenced assessment of priority low carbon heating technology for the area.**

Timing: **2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **partially accept**

We have committed to having LHEES in place for all local authority areas by the end of 2023 rather than in 2022.

The Scottish Government and COSLA have worked in partnership to place a statutory duty on local authorities to publish Local Heat and Energy Efficiency Strategies (LHEES) with the first set of Strategies and Delivery Plans due by the end of 2023 at the latest. A consultation on a draft LHEES Order was held in January 2022 with local government partners and following a positive response, the Order was laid in Parliament on 11 March. The duty will require the Scottish Government provide appropriate resource for local authorities to produce LHEES. The Scottish Government is engaged with COSLA and local authorities to determine an appropriate package of funding to enable local authorities to undertake this duty.

All 32 Scottish local authorities have already piloted the LHEES approach, and the Scottish Government is currently funding 14 local authorities to complete the first stages of developing their local authority-area-wide LHEES. This is a strong

foundation on which to roll out further LHEES work in 2022, supported by a statutory duty and appropriate resource for local authorities.

**6.9 Move into full implementation of decarbonising public sector buildings. Monitor and report improvements in emissions reduction across the public sector, including in schools and non- CO2 emissions in the NHS.**

Timing: **2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **accept**

The Heat in Buildings Strategy commits the Scottish Government to consult the Scottish public sector during 2022 to develop and agree a series of phased targets with increased funding available to support delivery of these targets – starting in 2024, with the most difficult buildings like hospitals being decarbonised by 2038 – for all publicly owned buildings to meet net zero emission heating requirements by 2038. Alongside this we continue to support the decarbonisation of public sector buildings. Over this parliament we will investment £200 million in energy efficiency and zero emission heating system measures

Since reporting year 2015-16, over 180 public bodies, including local authorities and the NHS, have had to report on their organisational greenhouse gas emissions, as well as information on emission reductions projects, procurement, and adaptation. Alongside individual public bodies reports, a public sector-wide analysis report is compiled annually by the Sustainable Scotland Network, providing a national and sectoral picture.

**6.10 Publish the implementation plan for the Climate Emergency Skills Action Plan, outlining in more detail how skills for green construction and zero emissions heating will be developed and communicated to the construction sector.**

Timing: **2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **accept**

The Climate Emergency Skills Action Plan Implementation Plan has been published.

**6.11 Publish the Fuel Poverty Strategy in 2021, setting out targeted advice on how to ensure those at risk of fuel poverty are not adversely impacted by decarbonisation efforts.**

Timing: **2021**

Primary responsibility: **Scottish Government**

Scottish Government response: **accept**

The Fuel Poverty Strategy was published in December 2021. It, along with the Heat in Buildings Strategy, makes clear the Scottish Government’s commitment to delivering both its statutory fuel poverty targets and statutory climate change targets. The Heat in Buildings Strategy set out a clear set of eight principles we will adopt in

our delivery programmes. These will ensure actions to decarbonise homes is only taken forward where they are found to have no detrimental impact on fuel poverty rates, unless additional mitigating measures can be put in place.



## 7. Agriculture and land use, land use change and forestry

**7.1 Ensure options for future agriculture and land use support through the proposed Bill to replace the current Common Agricultural Policy in 2023 provide a framework to deliver climate mitigation and adaptation as well as wider environmental objectives. This should cover support for measures to reduce on-farm emissions and strategic land use change away from traditional agriculture to reduce and sequester carbon.**

Timing: **2023**

Primary responsibility: **Scottish Government**

Scottish Government response: **accept**

Our [Vision for Agriculture](#) was published on 2 March 2022 and outlines our aim to transform how we support farming and food production in Scotland to become a global leader in sustainable and regenerative agriculture. We will support farmers and land managers who produce more of our own food needs and manage our land sustainably with nature and for the climate. A new Scottish Agriculture Bill will be brought forward in 2023 to replace the Common Agricultural Policy (CAP) and deliver on the vision, with a consultation in 2022 to inform its introduction.

**7.2 Plans for Environmental Conditionality should clearly set out milestones and timelines for full implementation that align with the emissions path set out.**

Timing: **2022/23**

Primary responsibility: **Scottish Government**

Scottish Government response: **partially accept**

We will support the essential role of farmers and crofters to contribute towards national climate change targets, recognising the vital role they play in managing Scotland's landscapes for the future as we transition to net zero. By 2025 we will shift half of all funding for farming and crofting from unconditional to conditional support, with targeted outcomes for biodiversity gain and a drive towards low carbon approaches which improve resilience, efficiency and profitability. The first element of the £51m National Test Programme '[Preparing for Sustainable Farming](#)' was launched on 29 April 2022 and will build on a range of support, including grants, advice, and research, to support our farmers and crofters to learn how their work impacts on climate and nature, and will create a robust understanding of how new conditions or activities could be applied to future support, and ensure delivery of environmental outcomes in a way that supports sustainable businesses to allow it to be rolled out following the introduction of the Agriculture Bill in 2023, and subsequent secondary legislation.

**7.3 Legislate and strengthen the regulatory baseline to promote take up of low-cost, low-regret options. This should include:**

**-Deliver the commitment under National Planning Framework 4 not to support applications for planning permission for new commercial peat extraction for horticultural use. Strengthen controls to restrict development on peat and support its restoration.**

Timing: **Now & ongoing**

Primary responsibility: **Scottish Government**

Scottish Government response: **partially accept**

The draft NPF4 is clear that we want to protect carbon rich soils and preserve and restore peat. It also sets out to ensure that development proposals for new commercial peat extraction, including extensions to existing sites, should not be supported except in limited circumstances. The draft policy sets out that development proposals on peatland, carbon rich soils and priority peatland habitat should not be supported unless essential in a limited range of circumstances. Such proposals will then be subject to further assessment. Consultation on the draft NPF4 closed on the 31 March. We are considering all responses to the consultation, including those from the CCC and will lay a finalised NPF4 for approval by the Scottish Parliament before it is adopted by Ministers. Following its adoption, NPF4 will form part of the statutory development plan, the primary basis for decisions made through Scotland's planning system.

We are committed to significantly increasing the rate of peatland restoration in Scotland to meet the target set out in the Climate Change Plan update to restore 250,000 hectares of degraded peatland by 2030. In 2022-23, our peatland restoration budget has increased by around 8% to a record £23.7 million as part of our spending package of £250 million over ten years. This will enable multi-year, large scale projects to be planned and delivered, boosting restoration rates and increasing the confidence of contractors to invest in machinery, jobs, training and skills. We are also working with our delivery partners and stakeholders to establish a new peatland programme that will take a holistic view of how we look after our peatlands going forward. It will catalyse action and address barriers to better protecting, restoring and managing Scottish peatlands.

**- Retain designations of Nitrate Vulnerable Zones and extend these where needed to protect water quality.**

Timing: **2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **accept**

The Protection of Water Against Agricultural Nitrate Pollution (Scotland) Regulations 1996 aims to protect the water environment against pollution caused by nitrates from agricultural sources. Regulation 3 places a duty to designate nitrate vulnerable zones, to review them at least every 4 years and to revise or add zones as necessary.

**- Enact in law a 'Nitrogen Balance Sheet'.**

Timing: **2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **accept**

Following agreement by the Scottish Parliament, the Climate Change (Nitrogen Balance Sheet) (Scotland) Regulations 2022 came into force on 11 March 2022. The baseline version of the Scottish Nitrogen Balance Sheet (SNBS) dataset was published at the same time as the Regulations coming into force. The SNBS will now be reviewed and updated on an annual basis from 2023 onwards – helping us keep track of progress in improving the use of nitrogen. After each such round of review, an updated version of the Balance Sheet dataset will be published, with an accompanying report setting out assessments of progress towards relevant on-the-ground actions to improve the use of nitrogen and identification of opportunities for further improvements in future.

**- State clear timeframes to end domestic peat extraction and the phasing out of its use in horticulture and as a fuel, and end burning management of peatlands.**

Timing: **2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **partially accept**

Our plans for preventing future expansion of peat extraction through NPF4 are described earlier. We currently have no plans to directly ban commercial extraction at currently licenced sites. However, in our 2021-22 PfG, we pledged to take forward work to develop and consult on a ban on the sale of peat related gardening products as part of our wider commitment to phase out the use of peat in horticulture, and this will indirectly impact levels of extraction. In the coming months, we will launch a consultation on retail peat (for horticulture and other uses, such as fuel) which will inform our direction and speed of travel, setting a date to ban the sale of peat related gardening products that is both realistic and ambitious. However, the UK Internal Market (UKIM) Act undermines Scotland's ability to implement effective policy to ban the sale of peat related gardening products. As it stands, peat extracted in, or imported into, other parts of the UK and legally sold there could legally be sold in Scotland, regardless of any ban. Hence, we are working closely with UKG and devolved administrations to resolve this issue, ideally through achieving exemption from the UKIM Act.

We understand the urgent need for tighter regulation and oversight of muirburn, and that's why we set out our commitment to deliver this as part of our 2021-22 Programme for Government. We will also introduce a ban on burning of muirburn on peatland, expect in very limited cases as part of an approved habitat restoration programme, and we will review the current definition of peatland, taking expert advice on whether it should be revised and a stricter definition imposed. We will bring forward the legislation in the current parliamentary term alongside the other recommendations of the Werritty review

**7.4 Raise ambition and introduce measures to deliver increased tree planting in the next decade, building towards at least 18,000 hectares of trees planted per year per year by 2024-25. Identify and address financial and non-financial barriers to implementation.**

Timing: **Now & ongoing**

Primary responsibility: **Scottish Government**

Scottish Government response: **accept**

This recommendation is in line with objectives set out in the Scotland Climate Change Plan. One measure is that Scotland's planning legislation and draft NPF4 strengthens the role of the planning system in supporting the delivery of Scottish Government's forestry commitments, and the contribution the sector and the country's expanding woodland area plays in achieving net zero, reversing the decline in biodiversity and supporting a growing economy. Consultation on the draft NPF4 closed 31 March. We are considering all responses to the consultation, including those from the CCC and will lay a finalised NPF4 for approval by the Scottish Parliament before it is adopted by Ministers.

**7.5 Raise ambition and introduce measures to restore peatlands in the next decade, building towards at least 20,000 hectares of peatland restored per year by 2024-25. Identify and address financial and non-financial barriers to implementation.**

Timing: **Now & ongoing**

Primary responsibility: **Scottish Government**

Scottish Government response: **accept**

Current forecasts from our peatland restoration delivery partners are to collectively pass 20,000 ha restored annually by 2024-25 and to increase further thereafter. New peatland restoration targets will emerge from the process of preparing the next full Climate Change Plan which has recently commenced.

In 2021 we commissioned NatureScot to prepare a report making recommendations for addressing the financial and non-financial barriers to upscaling peatland restoration across Scotland on two tracks - accelerating and transforming - towards any new targets that may emerge. NatureScot presented its report to the Scottish Government before Christmas 2021 and we are currently building on its findings to prepare a twin-track action plan for consideration by Ministers which will subsequently inform the development of peatland restoration policies and proposals in the next Climate Change Plan.

**7.6 Set out a pathway and implement policies to address on-farm emissions (e.g. through the Sustainable Agriculture Capital Grant Scheme and Agricultural Transformation Programme). Ensure there is a robust monitoring and verification system in place to track progress on:**

**· Delivering a high take-up of low-carbon farming practices covering soils, livestock and manure management.**

Timing: **2022/23**

**· Decarbonising energy use in farm buildings and machinery.**

Timing: **2022/23**

**· Measures to encourage on-farm sequestration e.g. through agro-forestry and hedges, which deliver wider benefits such as improved biodiversity.**

Timing: **2022/23**

**· Planting biomass crops where appropriate.**

Timing: **2022/23**

**· Fully implement regional land use partnerships to identify where resources have most positive climate impact.**

Timing: **2022/23**

Primary responsibility: **Scottish Government**

Scottish Government response: **partially accept**

- Action is being taken by the SG on these issues, policy development for the new Climate Change Plan will include an assessment of emissions savings associated with each policy.
- Track 1 of the National Test Programme (NTP) is offering support to farmers and crofters to undertake carbon audits and soil testing to support them to improve their climate performance and to improve nutrient management. Track 2 will create a robust understanding of how new conditions or activities could be applied to future support, and ensure delivery of environmental outcomes in a way that supports sustainable businesses.
- On livestock management, the NTP will be providing funding to support information gathering for livestock through the Livestock Digital Data project. It will see ScotEID work with a number of beef farmers in different geographic areas, to demonstrate the impact of agri-tech and specialist advice to inform future decisions on how advisory services and capital funding can support Scottish beef farming businesses to improve productivity. In relation to manure management, the 2022 Sustainable Agriculture Capital Grant Scheme (SACGS) will focus support (£5m) on low emission slurry spreading equipment and slurry store covers that are proven to reduce harmful ammonia emissions and reduce adverse impacts on water quality resulting from the storage and spreading of livestock slurry and digestate. This is in addition to support for slurry storage that is offered through AECS in priority catchment areas.

We **partially accept** the recommendation on decarbonising energy use in farm buildings and machinery as work is underway to consider policies for decarbonisation of energy use in farm buildings and machinery in the development of the next Climate Change Plan.

We **accept** the recommendation to support biomass crops where appropriate.

The recommendation on Regional Land Use Partnerships (RLUPs) is **partially accepted**.

- RLUPs are being piloted across five areas of Scotland. These pilots aim to facilitate collaboration between local and national government, communities, land owners, land managers and wider stakeholders.
- They will work at a regional level to enable natural capital-led consideration of how to maximise the contribution that our land can make to addressing the climate and environmental crises, with the aim to produce their Regional Land Use Frameworks by the end of 2023. It is therefore too early to assess the pilots, but, their on-going work will inform Ministerial decision-making on the future of RLUPs.
- Should these pilots prove successful, we have committed in the 2021 PfG and Bute House Agreement to developing plans for a second phase from 2023.

We **partially accept** the recommendation on agroforestry and hedges.

- Support is currently available for planting or replanting of hedges under the Agri-Environment Climate Scheme and agroforestry to support creation of small scale woodlands on agricultural pasture or forage land. We will continue to develop agroforestry, building on the work of Integrating Trees on Farms Network.
- We will continue to develop the evidence base, a number of studies suggest significant carbon removal, soil health and biodiversity potential in agroforestry and hedge planting. Work by Climatexchange provides the potential carbon sequestration of agroforestry which is closely linked to the quality of the land. The ranges for these values vary from -6.2 to 45.6 t C/ha over forty years for the lowest quality rough grazing to 12.8 to 77.5 t C/ha over forty years for arable land.

## 7.7 Implement mechanisms for private and public financing of agricultural and land-based solutions to deliver the level of ambition set out:

- **Deliver current commitments of support for leveraging of private finance to incentivise woodland creation and diversification of the forest estate in Scotland.**

Timing: **Now & ongoing**

- **Set out how public and private funding for peatland restoration will be aligned, how opportunities to attract increased private finance for peatland restoration will be developed, and support use of the Peatland Code as the verifiable standard.**

Timing: **2022**

- **Define financial mechanisms to incentivise land-based approaches, such as low-carbon farm practices, agroforestry, hedgerows and energy crops, to support the scale of transition required.**

Timing: **2022**

- **Current and future incentives for mitigation must also consider the wider co-benefits for environmental goals such as climate change adaptation and biodiversity.**

Timing: **2022**

Primary responsibility: **Scottish Government**

- We **accept** the recommendation to Deliver current commitments of support for leveraging of private finance to incentivise woodland creation and diversification of the forest estate in Scotland
- We are on track to meet the target in the 2020 Climate Change Plan Update to increase the size of the woodland carbon market by 50% by 2025 through the Woodland Carbon Code (WCC). The WCC leverages private finance to enable additional woodland creation towards targets to reduce net GHG emissions.
- Scotland is creating a range of different types and sizes of woodland. In the last two years over 22,000 hectares of new woodland has been created with 40% of that being new native woodland. Over the last four years Scottish Government has met its annual target for creating new native woodland set out under the Scottish Biodiversity Strategy.
- Under the Bute House Agreement the Scottish Government has committed to increase the annual native woodland creation target to 4,000 hectares and set evidence-based targets for both native woodlands and natural regeneration as part of the new Biodiversity Strategy.
- Scottish Government has also committed to protect and expand Scotland's rainforest over the life of this Parliament, as part of the £500 million investment in our natural economy

- We **accept** the recommendation on public and private funding for peatland restoration:
  - We are committed to increasing the flow of private finance into peatland restoration to support our ambitious targets. This goal is nested within our work to develop a values-led, high-integrity market to encourage responsible private investment in natural capital in Scotland.
  - The Peatland Code is the main existing mechanism to attract private investment into peatland restoration. It provides assurance that the carbon benefits being sold are real, quantifiable, additional and permanent.
  - By using the Peatland Code, a landowner can receive private financial investment through the sale of carbon units which can be used flexibly to help with capital costs or long-term management costs.
  - The Peatland Code allows the blending of public (max 85% of total costs) and private (min 15% of total costs) finance for the costs of restoration and the ongoing management.
  - The money from the sale of carbon units can be used alongside public funding streams like agri-environment grants. Projects under the Peatland Code must run for a minimum of 30 years, to ensure the benefits of the restoration works are realised, maintained, and protected through sustainable management.
  - There is a significant appetite in the hundreds of £millions from private investors to fund peatland restoration in return for carbon credits but there are barriers to be overcome to scale up restoration in a sustainable way in respect of the just transition principles.
  - On our behalf, NatureScot (Peatland Action) is working with and supporting IUCN and others to develop and promote the Peatland Code in Scotland, to make it more attractive to landowners and private investors as the benefits of the Code are not well known or clear enough to landowners yet.
  - NatureScot examined options to increase private investment in peatland restoration in the report to Scottish Government referred at recommendation 52 which will inform further actions to overcome barriers.
  
- We **partially accept** the recommendation on low-carbon farming practices
  - Action is being taken by the SG on these issues through grants, research and advice and support to farmers through the Farm Advisory Service and Farming for a Better Climate.
  - Track 1 of the National Test Programme (NTP) is offering support to farmers and crofters to undertake carbon audits and soil testing to support them to improve their climate performance and to improve nutrient management. Track 2 will create a robust understanding of how new conditions or activities could be applied to future support, and ensure delivery of environmental outcomes in a way that supports sustainable businesses.



- The Agri-Environment Climate Scheme (AECS) reopened to applications in January which will underpin the ambition of doubling the amount of land under organic management as set out in the Programme for Government 2021-22 alongside a suite of other measures aimed at promoting low carbon farming and protecting the environment.
- The 2022 Sustainable Agriculture Capital Grant Scheme (SACGS) will focus support (£5m) on low emission slurry spreading equipment and slurry store covers that are proven to reduce harmful ammonia emissions and reduce adverse impacts on water quality resulting from the storage and spreading of livestock slurry and digestate. This is in addition to support for slurry storage that is offered through AECS in priority catchment areas.
- Support is currently available for planting or replanting of hedges under the Agri-Environment Climate Scheme and agroforestry to support creation of small scale woodlands on agricultural pasture or forage land. We will continue to develop agroforestry, building on the work of Integrating Trees on Farms Network.
- Agriculture, forestry and other land uses (AFOLU) accounts for about 40% of Scotland's greenhouse gas inventory. For land use, it is not possible to disentangle mitigation from adaptation and state of nature. The transition to net zero will require transformative change in the way we use the land, to ensure land use is a net sink overall and has the capacity to remove unavoidable emissions from other sectors of the inventory. This must be done so as to simultaneously meet SG emission reduction targets and the lower end of the Paris target range (1.5C) whilst building diversity and resilience for a 3C world (post COP-26) and becoming nature positive (SBS targets). Farming alone covers 70% of Scotland. Meeting the 2030 emission target will require 10% reductions a year from now on, compared to an average of 2-3% a year over the last 30 years. Early action is key to ensure that enhancing nature in all uses of the land and sea maximises its potential to remove emissions and has the diversity and resilience to buffer change.

## **7.8 Identify and address the non-financial barriers that prevent changes to land use and management, including.**

- Maintain and enhance programmes and initiatives for advice and knowledge exchange for Scotland's farmers, crofters and land managers.**

Timing: **Now & ongoing**

- Support tenant farmers in making the long-term commitment and investment required to reduce emissions and sequester carbon on the land they manage.**

Timing: **2022 onwards**

- Continue to raise awareness and promote the development of skills in sustainable agriculture, alongside those needed at scale for restoration of semi-natural habitats such as peatlands and woodlands.**

Timing: **2022**

- Address tax treatment of woodlands where they are acting as a barrier to change.**

Timing: **2022**

- Explore the need to reform legislation to support woodland creation on agricultural holdings and publish recommendations.**

Timing: **2022**

Primary responsibility: **Joint with UK Government**

Scottish Government response: **partially accept**

- Through the Farm Advisory Service the Scottish Government will provide a first-rate advisory provision for farmers, land managers and crofters, providing high quality advice that will help them to ensure their businesses are ready to meet the challenges of the future.
- We support the Farming for a Better Climate programme, which focuses on sharing good practice through peer-peer learning, and testing new methods through pilots.
- Tax rules governing woodlands are reserved to UK Government.
- We support the Scottish Land Commission's work with the Tenants and Trees Group, that will lead further co-ordination and discussions involving stakeholders on this topic via the Tenant Farming Advisory Forum. We believe it right that this work should be allowed to proceed to the point where it identifies any recommendations, including any future changes to primary legislation.
- Through the Climate Change Mitigation and Adaptation Practical Training Fund, we are providing farmers, crofters, others involved in managing the land or people who want to get training with the opportunity to be fully funded to gain the right skills to help them take positive action to deliver sustainable agriculture .

- We are moving towards establishing peatland restoration pilots on Scottish Ministers' crofting estate better to understand the barriers and opportunities for interested crofting communities to engage.

**7.9 Set out plans to deliver Scotland's guidelines on healthy eating, to encourage a healthy, balanced and sustainable diet. This should include measures to encourage a reduction in the consumption of meat and dairy products e.g. through better information and labelling, the public sector taking the lead and development of an evidence-based strategy on diets.**

Timing: **2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **partially accept**

- Food Standards Scotland have published an online dietary guidance resource, EatWellYourWay.scot, which delivers evidence-based dietary advice, to help people in Scotland make healthier food and drink choices, one step at a time.
- The advice in Eat Well, Your Way is based on the Eatwell Guide. Research from The Carbon Trust has shown that if people consumed a diet more similar to the Eatwell Guide this would be a healthier and more sustainable way of eating. These effects come from a reduction in dairy, meat and discretionary foods, plus an increase in some starchy foods, fish and fruit & vegetables. Eat Well, Your Way currently includes some messaging targeted at making healthier, sustainable choices and the resource will continue to be developed in this way.
- We are reviewing our public sector food procurement guidance document Catering for Change. This updated guidance will help Scottish public sector procurement staff to make sustainable choices when procuring food and catering services.
- We have a proud record of supporting and investing in farming and food production and are wholly committed to continuing to support active farming in the future. We believe that Scotland should be a global leader in sustainable and regenerative agriculture.
- Our positive vision for Scottish food production is one in which our world-class producers, including livestock farmers and red meat producers, thrive.
- We recognise the need for consumers to have better information on the sustainability of the food they consume, and the benefit to Scottish food and drink producers in being able to demonstrate sustainable production. This is why we are undertaking scoping work to develop the Sustainably Scottish marketing scheme, which would be available to all Scottish producers who are able to meet stringent criteria on provenance and sustainable production.
- We are committed to transforming Scottish agriculture, including the meat and dairy sectors, to meet our ambitious climate targets. Continued sustainable food production is central to our policy approach and Scotland is well placed for livestock farming.

**7.10 Set out a target to reduce food waste and a comprehensive plan to deliver it. This should include reporting of food waste by businesses across the food supply chain, public sector and households.**

Timing: **2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **partially accept**

The [Food Waste Reduction Action Plan](#) (FWRAP), published in 2019, set a target for a 33% reduction in food waste by 2025. We are reviewing this plan in 2022 to both assess our progress and identify what further actions we need to take in pursuit of the target. A key area of focus for 2022 onwards will be the development and implementation of a citizen behaviour change strategy for food waste reduction to better encourage food waste reduction in households. We are not proposing mandatory reporting of food waste in the household at this time, however an updated estimate of household food waste, based on bespoke waste composition analysis, will be published as part of the 2022 FWRAP review.

When we consulted on legislative proposals for mandatory public reporting of food waste and surplus for businesses in 2019, the majority of respondents were in favour of the proposal and, on that basis, we are continuing to explore.

The Scottish Government's 2021 Programme for Government outlines our commitment to introducing a Circular Economy Bill this Parliamentary session. The Bill will put in place legislative measures to support and encourage reduction of consumption, reuse, repair and recycling so as to reduce waste. As part of the work towards that Bill, we will be consulting on a number of proposals for legislation in May. Alongside a consultation for a circular economy bill, we will publish our waste route map consultation in May, which will set out further proposals to facilitate Scotland's transition to a zero waste and circular economy, and accelerate progress to meet our waste, recycling and emissions targets.

## 8. Power

**8.1 Set out an updated assessment of how much renewable and low-carbon electricity generation will be required to meet Net Zero in Scotland and contribute cost-effectively to Net Zero in the UK, with a clear trajectory to 2045.**

Timing: **2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **partially accept**

Assessments of how much renewable and low-carbon electricity generation required to meet Net Zero in Scotland will be assessed as part of the Scottish Government's work to develop energy scenarios. There is no single answer to this question as any trajectory will depend on decisions around electrification of key technologies such as heat in buildings, transport, industry, etc.

Work on the next climate change plan will set out estimated levels of electrification and energy demands across all sectors and help identify the likely trajectories of required renewable and low-carbon electricity generation.

**8.2 Complete the definition and enforcement of a planning and consenting scheme for onshore wind and other low carbon generation in a manner that is consistent with other policies on land use, supporting repowering and life extension of existing wind power in Scotland, and aligning with adaptation priorities under the Scottish Climate Change Adaptation Programme. Ensure treatment of network developments that is consistent with ambitions for development of low carbon generation.**

Timing: **2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **partially accept**

Wording of this recommendation is ambiguous and it is not entirely clear what is proposed. We accept the need to bring forward a finalised NPF4, a draft of which was laid before parliament and opened for public consultation on 10 November. Draft NPF4 policy 19 'Green Energy' is intended to actively enable renewable energy developments, including solar and wind repowering, setting a framework for local development plans and decision making to inform decision on development proposals. The proposed national development 12 'Strategic Renewable Electricity Generation and Transmission Infrastructure' would establish the need for large scale grid and renewable electricity generation projects throughout Scotland.

Consultation on the draft NPF4 closed 31 March. We are considering all responses to the consultation, including those from the CCC and will lay a finalised NPF4 for approval by the Scottish Parliament before it is adopted by Ministers.

Following its adoption, NPF4 will form part of the statutory development plan, the primary basis for decisions made through Scotland's planning system, and will be supported by a delivery programme.

**8.3 In conjunction with the network owners and system operator, outline what will be required to ensure adequate electricity supply resilience across Scotland in the late 2020s and into the 2030s as thermal generation in Scotland is retired.**

Timing: **2024**

Primary responsibility: **Scottish Government**

Scottish Government response: **we have not been able to accept at this point in time, the activity is reserved**

Security of supply is a reserved matter and is delivered by National Grid ESO across the whole of GB under regulation from the independent energy regulator Ofgem. Ultimately while Scottish Government has a very strong interest in this area it does not have the powers to compel either the system operator or the network owners to undertake such work.

## 9. Waste

### **9.1 Complete and publish the planned review into the role of Energy from Waste and incineration in meeting Scotland’s ambition to become a zero-waste nation, prioritising efforts to improve resource efficiency.**

Timing: **Q1 2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **accept**

The Scottish Government appointed Dr Colin Church to oversee an independent review into the role of incineration in Scotland’s waste hierarchy, which will ensure that how we treat residual waste, which cannot be reused or recycled, aligns with our emissions reduction targets.

The report on the review of the role of incineration in Scotland’s waste hierarchy was published on 10 May and is available here: [Supporting documents - Stop, Sort, Burn, Bury - Independent Review of the Role of Incineration in the Waste Hierarchy in Scotland - gov.scot \(www.gov.scot\)](https://www.gov.scot/resources/documents/2022/05/Supporting_documents_-_Stop,_Sort,_Burn,_Bury_-_Independent_Review_of_the_Role_of_Incineration_in_the_Waste_Hierarchy_in_Scotland_-_gov.scot_(www.gov.scot))

As independent chair, Dr Church determined the detailed scope of the review. This includes a consideration of the societal impacts of residual waste treatment, including health and community impacts, as well as an assessment of national capacity requirements. The report makes 12 recommendations on these themes. The scope also includes a consideration of how emissions from existing incinerators can be reduced and residual heat may be reused. The Report, therefore, makes two provisional recommendations on options to decarbonise the existing residual waste treatment infrastructure in Scotland, pending completion of this further research.

### **9.2 Work with the UK Government to develop a policy and funding framework to retrofit existing Energy from Waste plants with CCS from the mid-2020s, and ensure any new Energy from Waste plants are all built ‘CCS-ready’.**

Timing: **2022/23**

Primary responsibility: **Joint with UK Government**

There are two parts to this recommendation:

1. Work with the UK Government to develop a policy and funding framework to retrofit existing Energy from Waste plants with CCS from the mid-2020s - **partially accept**
2. Ensure any new Energy from Waste plants are all built ‘CCS-ready’ –**partially accept**

#### Policy and funding framework for CCS

We would be open to working with UK Government to develop a policy and funding framework to retrofit energy from waste (EfW) plants with CCS. The biggest barrier to CCS is likely to be the costs associated with business model support, and to underwrite transport and storage liabilities, responsibilities and decisions that sit with the UK Government. Currently, the UK Government is the main source of funding for CCS and the majority of this funding is on revenue model support to emitters. BEIS

is developing a framework for business model support, which includes consideration of the applicability of the business model support to waste management facilities and officials are keen to support this work.

However, the only route that this business model support will become available is through the CCS cluster sequencing process. Supporting the Scottish Cluster for the deployment of CCS is, therefore, critical to supporting energy from waste plants to support the move towards net-zero by retro-fitting CCS. Supporting the Scottish Cluster would also enhance supply chain growth and economic benefit in Scotland, and underpins any opportunity for negative emissions technologies in Scotland's energy mix. All credible evidence advice and analysis has demonstrated that CCS is critical for meeting statutory emissions targets, and as such it is critical that the UK Government provide greater clarity on CCS following the decision to not to give the Scottish Cluster (led by the Acorn Project at St Fergus) clear and definitive Track 1 status in its CCS cluster sequencing process.

The Scottish Government does not hold all the necessary legislative and regulatory levers needed to stand up a CCS cluster alone, UK Government support including access to BEIS business revenue support, and underwriting of liabilities is essential to providing the certainty and support required to accelerate CCS in Scotland. Given the criticality of CCS the Scottish Government has already engaged with the UK Government to press for greater clarity and to work collaboratively with them to find solutions to accelerate the deployment of CCS in Scotland, and will continue to do so. We have already offered £80 million from our Emerging Energy Technologies Fund and are reviewing what further actions we can undertake within our devolved responsibilities to work with the UK Government towards a mutually beneficial outcome. However, without agreement from the UK Government to support the Scottish CCUS Cluster on an accelerated timetable it is unlikely that any funding would be available to Energy from Waste Plants to retrofit CCS in Scotland by the mid-2020's. Moreover, there is no clarity on whether carbon capture, transport and storage can be operational in the mid-2020s. We therefore cannot agree to the timetable set out in the recommendation.

Ensure any new Energy from Waste plants are all built 'CCS-ready'

Our Update to the Climate Change Plan we committed to consider measures to ensure how waste infrastructure can be 'future-proofed' for carbon capture and storage (CCS). The draft NPF4 contains requirements that mean new energy from waste plants will likely need to consider carbon capture and storage. For example, the draft NPF4 notes that proposals which involve the recovery of energy from waste "should only be supported where the proposal is consistent with climate change mitigation targets and in line with circular economy principles" and "should only be supported ...where consideration is given to methods to improve the sustainability of the facility, such as carbon capture and storage". Consultation on the draft NPF4 closed 31 March. We are considering all responses to the consultation, including those from the CCC and will lay a finalised NPF4 for approval by the Scottish Parliament before it is adopted by Ministers. Following its adoption, NPF4 will form part of the statutory development plan, the primary basis for decisions made through Scotland's planning system.



We have commissioned an independent review of the role of incineration in the waste hierarchy in Scotland. As part of this review, the review team have commissioned a longer piece of work to consider the options to decarbonise the energy from waste sector. We expect this work to complete before the end of the year. We have asked the CCC to comment on this piece of work from a policy perspective, once it is complete. Following this piece of work, we will consider the recommendation to ensure waste plants are CCS-ready.

**9.3 Bring forward the planned circular economy package for legislating within the forthcoming Programme for Government.**

Timing: **2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **accept**

PfG already commits us to bringing forward a Circular Economy Bill. Consultation planned for May 2022, expect legislative timetable to be announced in next PfG.

**9.4 Ensure key policies, such as Extended Producer Responsibility are on track to be in place well before 2025.**

Timing: **2022/23**

Primary responsibility: **Scottish Government**

Scottish Government response: **accept**

This recommendation is vague but in line with our PfG and CCPu commitments we are developing a route map to accelerate progress to meet our 2025 waste reduction and recycling target in a way that maximises carbon savings. The consultation on our route map is due to be published in May 2022, alongside the consultation on a circular economy bill. We are working with the other UK administrations to bring in extended producer responsibility for packaging from 2024.

Our Deposit Return Scheme will be live from August 2023.

**9.5 Work with the waste sector and local authorities to set out a route-map detailing the policy and support needed to ensure the 2025 waste prevention and recycling targets (including the 70% recycling target) are delivered, and setting new ambitious targets for 2030.**

Timing: **2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **accept**

This recommendation is in line with our PfG and CCPu commitment to develop a route map to accelerate progress to meet our 2025 waste reduction and recycling target in a way that maximises carbon savings. Work to develop the route map over 2021 included pre-consultation workshops with local government and waste sector to understand the challenges/barriers to progress, identify opportunities, harness expertise and test assumptions.

As part of the development of the route map, due consideration is being given to post-2025 measures, including targets for the period to 2030 and beyond to ensure the waste sector fully plays its part in emissions reduction.

The consultation on our route map is due to be published in May 2022, alongside the consultation on a circular economy bill.

**9.6 Confirm that the 2025 ban on biodegradable waste is extended to cover commercial/ industrial waste and implement measures to ensure the ban is delivered primarily through improved waste prevention, resource efficiency and recycling.**

Timing: **2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **partially accept**

This recommendation is in line with commitments in our Update to the Climate Change Plan. We have committed to extend the ban on landfilling biodegradable municipal waste to include biodegradable non-municipal waste, subject to appropriate consultation and work to provide assurance around some specific waste streams. We intend to undertake this work in 2022/23.

**9.7 Start reporting emissions from Energy from Waste as a separate source within the Scottish GHG inventory.**

Timing: **2022**

Primary responsibility: **Scottish Government**

Scottish Government response: **partially accept**

We will work with our contractors to explore the potential to break down our GHG inventory reporting to provide a separate Energy from Waste source within our future publications. However, given the time required to develop new methodology it is unlikely that this will be ready in time for our next publication.



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