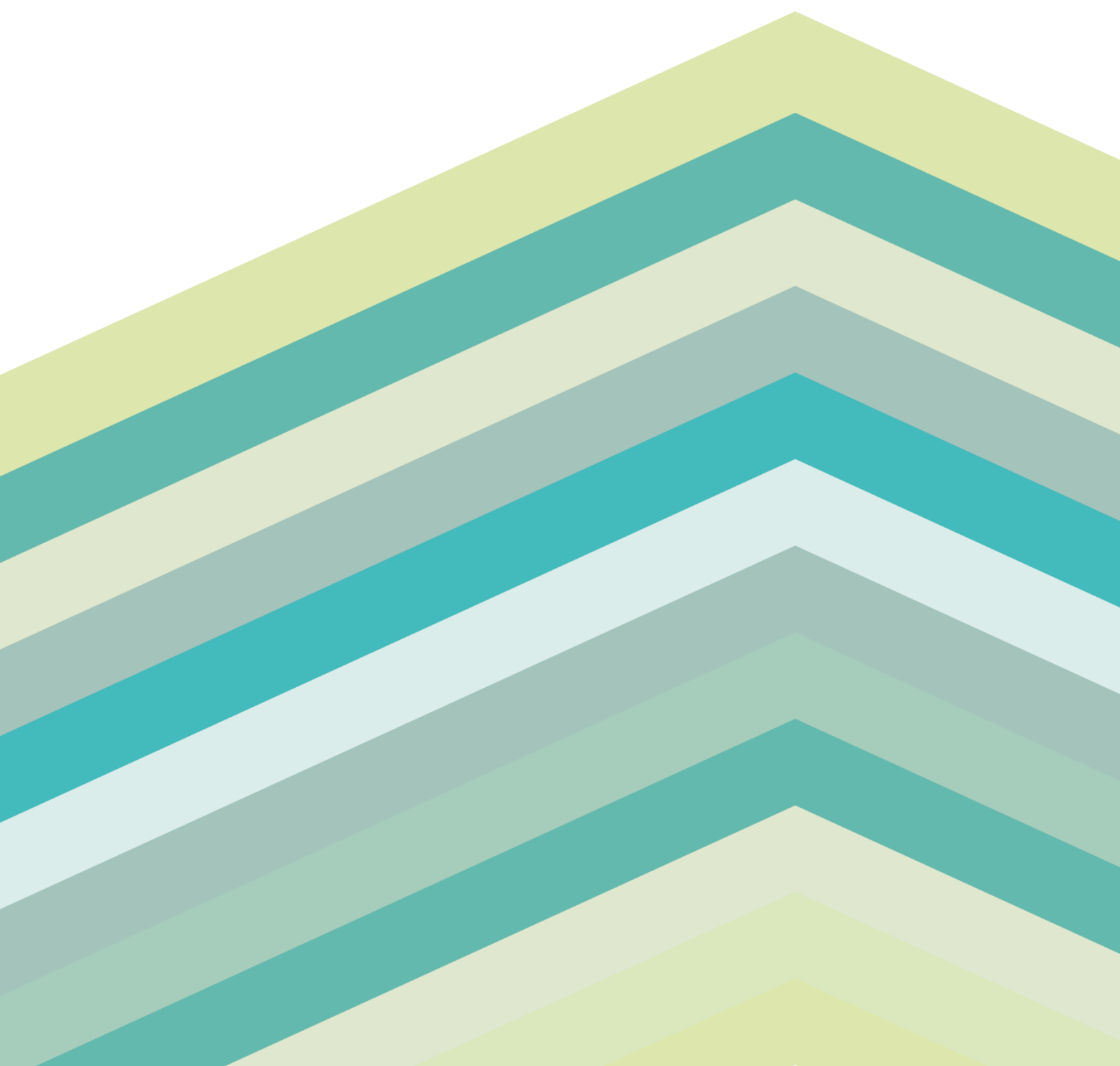


CLIMATE EMERGENCY RESPONSE GROUP

Scotland's Climate Emergency Response: Priorities for the Climate Change Plan Update

April 2020



Preface

This briefing was researched and written by CERG before the COVID-19 crisis and the Scottish Government's announcement that the publication of the Climate Change Plan Update would be delayed¹. We support this decision and welcome the government's plan to consider how the Climate Change update can contribute to a green recovery for Scotland.

We are submitting this paper to the Scottish Government as it stands to provide an immediate contribution to the government's thinking on how the economic recovery can be aligned with the government's climate goals. We believe many of the proposals in this briefing are valid in terms of stimulating inclusive economic progress though some delays and adjustments may be necessary to due to the current crisis. In due course, CERG will focus its efforts on producing more targeted proposals with evidence to inform a green stimulus plan for Scotland to address the economic and social impacts of the COVID-19 crisis.

Introduction

Climate Change Plan Update

The Scottish Government is producing an update of its Climate Change Plan to reflect the increased ambition of the new targets set in the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019. These targets are a 75% emissions reduction by 2030, 90% by 2040 and net-zero emissions by 2045. This document provides the views of the Climate Emergency Response Group on priorities for this update.

The current Climate Change Plan (covering the period from 2018-2032) provides for a reduction in annual emissions of just over 10 megatonnes by 2032. The new targets mean more than double the effort will be required – a reduction of 25 megatonnes by the same date. The Committee on Climate Change (CCC) said in its latest progress report for Scotland, that, 'by the time of the COP26, Scotland must implement new actions to deliver against an updated Climate Change Plan, demonstrating to the rest of the world a clear and credible commitment to achieve net-zero emissions by 2045.'²

The CCC progress report also noted that emissions reductions to date have largely relied on the shift towards renewables in the power sector, and now other sectors must play a much bigger role over the next ten years.

The Climate Change Plan Update will take the form of an addendum to the current plan setting out any changes for each sector, e.g. new policies or programmes, expansion or acceleration of current policies and programmes, and changes or ending existing policies and programmes.

Climate Emergency Response Group

The Climate Emergency Response Group (CERG) is a group of civic and business leaders who have come together to use their insights and influence to ensure the Scottish Government puts in place an appropriate response to the climate emergency.

¹ <https://news.gov.scot/news/climate-change-plan-update>

² Reducing emissions in Scotland, progress report 2019, December 2019, UK CCC

CERG has produced two reports: *12 immediate actions for Scotland's response to the climate emergency* (August 2019) and *Funding the 12 immediate actions for Scotland's response to the climate emergency* (January 2020)³. Together, these reports contain a set of transformative policy proposals with their funding requirements and have helped to inform the Scottish Government's 2019-20 Programme for Government and the Scottish Budget for 2020/21.

CERG membership

| |
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CERG's priorities for the Climate Change Plan Update

In developing our priorities for the Climate Change Plan Update, the group continued to apply the criteria which guided the selection of CERG's 12 immediate actions for Scotland's climate emergency response. In our view, each proposed policy should be designed to:

- Slash our climate emissions, across the economy, helping to put Scotland on track for climate neutrality by 2045.
- Be transformational, accelerating emissions cuts commensurate with the emergency.
- Impact globally and in Scotland, cutting global emission through our leadership and by avoiding carbon leakage.
- Be achievable now – these steps can all be implemented now, by Scottish Government, with existing technology and supporting innovation.
- Help the people of Scotland, providing the infrastructure, support and incentives required to help people across the nation make climate-friendly changes.
- Make Scotland wealthier, healthier and greener, supporting prosperity, social well-being and working with nature to deliver wider environmental benefits.

³ <https://www.changeworks.org.uk/cerg>

- Provide for a just transition, that changes our economy and our emissions in a fair way in terms of jobs, who pays and outcomes.

For the Update, we gave particular focus to three overarching themes:

- Urgency and ambition: a focus on the next decade and delivering 75% target.
- Immediate delivery: achievable policies and how they can be delivered in practice.
- Large-scale, systemic changes involving collaboration across sectors and organisations, supporting culture and behaviour change.

Our recommendations are for the following sectors: electricity, buildings, transport, industry and agriculture. We build on the commitments made to date by the Scottish Government in its Programme for Government (PfG) and the Scottish Budget, both of which had a distinct focus on the climate emergency. The UK CCC's Progress Report for Scotland 2019, and recent reports from the Infrastructure Commission for Scotland⁴ and Just Transition Commission⁵, also provide valuable guidance in shaping the Update and we have referenced some of their recommendations in the text.

CERG proposals for the Climate Change Plan Update

Overarching issues

Targets and outcomes

All targets and outcomes need to be reviewed for alignment with the new climate change targets. In addition, milestones for 2030 (75% reduction) and 2040 (90% reduction) should be set and used to measure annual progress.

Conditions for success

In the last year, the Scottish Government has made its response to the climate emergency a focus of the Programme for Government and the Scottish Budget. Now the Climate Change Plan Update must put in place the necessary conditions for achieving its targets and signal a low carbon investment strategy for the next five years.

The Update should reflect the following elements:

- Strong collaboration across sectors to maximise the multiple benefits of this investment (eg health, jobs, energy security)
- Public and community engagement and support
- Clear and consistent signals to the market to encourage investment and innovation
- Supply chain support and quality assurance
- Robust governance to ensure we are on track to meet targets
- Transparency and clarity to encourage understanding, acceptance and support.

⁴ Phase 1: Key findings report: A blueprint for Scotland, January 2020, Infrastructure Commission for Scotland.

⁵ Interim report, February 2020, Just Transition Commission

Systemic change

One of the key challenges for the Climate Change Plan Update is that solutions to delivering a net zero future are increasingly systemic, while the Plan Update reporting – based on international conventions - follow (understandably) the sectoral approach of the last plan. We understand the rationale for sectoral targets and reporting, but request that such cross-sectoral solutions are flagged clearly in the Plan Update for further work in future.

Three examples where solutions cut across existing sectors are:

Land use:

Currently, land use reporting is split into agriculture, forestry and peatland. Yet decision-making on land is made at croft, farm or estate level by landowners or land managers (crofters, farmers) about the whole parcel of land and its energy needs (diesel, electricity, etc.). These decisions do not artificially separate out trees from agriculture, nor use of renewable energy from the land. To develop lasting solutions to transforming land use, we need to bring together whole farm/croft or estate solutions (or indeed regional land use strategies as flagged in the recent Programme for Government) for getting to net zero. For example, developing farm level carbon reduction schemes, giving the opportunity for farmers to benefit from developing agro-forestry and renewable energy on their land.

Buildings and Energy

With the growth of local modular renewable electricity at a cost near or below grid parity, coupled with the rapid move to electric vehicles (driven initially by governments but now by market mobilisation), the distinction between energy generation, buildings and transport is becoming increasingly meaningless.

City/Town Transformation

We live – predominantly – in cities and towns. The rise of the 'place-making' agenda and the need to create affordable, safe and thriving places to live across Scotland provides a critical route to delivering net zero carbon solutions. The transformation of cities and towns will need, at a minimum, approaches and tools for citizen engagement, social innovation, economic business cases, new regulations, and access to capital and new business models. These do not sit neatly within policy-reporting silos for buildings, energy generation land use or transport, but can be activated by cities and towns across the country.

Capital Spending Review

The Climate Change Update will signal the priorities for future spending over several years, helping to shape the forthcoming Capital Spending Review and Infrastructure Investment Plan. Therefore, the Update should bear in mind the following recommendation from the Infrastructure Commission for Scotland:

To provide leadership and demonstrate intent, the Scottish Government should prioritise all new infrastructure investment decisions based on their contribution to the delivery of an inclusive net zero carbon economy. All Scottish Government funded projects included in its 2020 Infrastructure Investment Plan should be prioritised against available inclusive net zero carbon economy outcomes.

This will require the development of new assessment frameworks, as recommended by the commission. We recommend building in scenario-based approaches to these new assessment frameworks given the scale of change needed and also future uncertainties that require more imaginative and proactive approaches.

Independent Advice

The Infrastructure Commission for Scotland recommended the establishment of a body to provide long-term, independent advice on infrastructure planning and investment. We support this recommendation and believe that an office in Scotland of the UK CCC could provide at least part of this function. The Scottish Government has previously indicated its support for establishing such an office, and this should be taken forward without delay and with enough resourcing.

Sector Updates

Electricity

Summary:

Changing our patterns of energy use and how that energy is generated are crucial in reducing Scotland's climate emissions going forward. Renewable electricity generation is now equivalent to approximately 76% of Scotland's electricity consumption. However, electricity accounts for approximately 25% for our energy usage. Transport and heating account for approximately 25% and 50% respectively, and we have barely scratched the surface of decarbonising these sectors.

Scotland's abundant renewable energy resources mean we have the capacity to produce the low-carbon electricity and green hydrogen that decarbonising our energy use will require. But much relies on strong leadership and a supportive policy environment to unlock this potential.

Scottish Government commitments

The PfG promises that the next Energy Statement will set out the extent to which renewable and low carbon energy generation will need to combine in order to meet net zero. It also commits to bringing to market a £3 billion 'green investment portfolio' of projects over the next three years. These projects will include renewables, waste and construction and will look at expanding into other sectors such as transport.

Expert recommendations

In its Technical Report on achieving net-zero, **the CCC** states:

Significant new renewable generation capacity is needed to accommodate rapid uptake of electric vehicles and hybrid heat pumps. Over the period to 2035, up to 35 GW onshore wind, 45 GW offshore wind and 54 GW solar PV could be needed. Further deployment is likely to be needed over the period to 2050. The UK's onshore wind, offshore wind and solar PV resource are likely to be more than adequate to deliver an expanded and decarbonised electricity system to 2050.

As the majority of the UK's renewable energy resource is in Scotland, we would expect to see a large percentage of this deployment in Scotland. Based on historical levels of deployment in Scotland versus the rest of the UK, an increase from the current 8 GW of installed onshore wind capacity to 21-24 GW by 2035 is a reasonable assumption. Industry research would also indicate an increase in offshore wind from the current installed capacity of 1 GW to 12 GW by 2030 and for solar is expected to increase over the next decade from the current 0.35 GW of installed capacity to 1.6 GW by 2035.

In its latest progress report for Scotland, the CCC states:

To a large extent, delivering further expansion of renewable electricity and improving the electricity network in Scotland is contingent on policies from the UK Government. However, the strategic direction for low-carbon energy as a whole set by the Scottish Government,

including for heat and transport, and an appropriate planning framework can play important roles in encouraging investment in the required new facilities.

The **Scottish Infrastructure Commission** noted that it is likely that Scotland will need to build on the good progress made to date in decarbonising electricity production and to significantly scale up the decarbonisation of heat and transport.

The **Just Transition Commission** noted that government and industry should be jointly considering how increased deployment of renewable energy generation can be met in a way which secures economic benefits for Scotland. Doing so requires a clear pipeline of projects to support the development and stability of the Scottish supply chain.

CERG proposed updates – Electricity (Renewable Energy)

| Current Climate Change Plan | Amendments for Update |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Policy Outcomes | |
| <p>From 2020 onwards, Scotland’s electricity grid intensity will be below 50g CO2 per kilowatt hour. The system will be powered by a high penetration of renewables, aided by a range of flexible and responsive technologies.</p> | <p>NEW Most of the additional electricity capacity generated in Scotland from 2020 onwards will be used to decarbonise heat and transport. Models used to calculate the carbon payback of renewable energy schemes are currently based on the carbon intensity of electricity. These models should be amended to reflect the carbon intensity of heat and transport to give a more accurate measure of the carbon savings achieved by additional electricity generation post 2020.</p> |
| Delivery | |
| <p>To achieve our ambition in the electricity sector, we are supporting the development of a wide range of renewable technologies by addressing current and future challenges, including market and policy barriers. We will support improvement to electricity generation and network asset management, including network charging and access arrangements that encourage the deployment and availability of renewable projects in Scotland; and encourage development of a range of technologies that aid system security, flexibility and resilience.</p> | <p>NEW The Update should recognise that electricity generation will need to increase to provide the energy required to decarbonise heat and transport through electrification of a significant percentage of these sectors. It is important that the achievement of the 100% of electricity from renewables target does not create the false impression that ‘the job is done’.</p> <p>NEW Refocus the planning process to deliver net-zero. This means the climate emergency and net-zero should be given substantial weight as key material considerations in every planning decision.</p> <p>National Planning Framework 4 (NPF4) should ensure that the climate emergency</p> |

is a material consideration in planning decisions, the further deployment of the most modern and efficient renewable energy technology is acknowledged as nationally important and create a supportive policy environment to ensure the levels of renewable deployment needed for net zero are achieved. This will require decisions to be made swiftly, with consistent outcomes and at reasonable cost.

NPF4 should also create the policy framework to ensure that planning policy and planning decisions are consistent at national regional and local levels.

NEW

The necessary tools, resources, training and policy direction are developed and implemented so planning authorities and other decision makers are equipped to consider planning applications in the context of the climate emergency and net-zero.

Buildings (with focus on domestic building stock)

Summary

Improving energy efficiency in our buildings is the simplest, most cost-effective and sustainable way to reduce Scotland’s climate change emissions. It also reduces heat demand, making the challenge of heat decarbonisation much less expensive – all routes for decarbonising heat rely on energy efficiency improvements to reduce heat loss and the cost of keeping warm⁶.

The Energy Efficiency Scotland programme provides a solid foundation for accelerating and scaling up the improvements to the energy efficiency of our building stock, combined with the decarbonisation of heat.

Scottish Government commitments

The Programme for Government (PfG) makes a commitment to scale up and accelerate existing work to reduce emissions from heating homes and buildings to near-zero by 2045, in line with advice from the Committee on Climate Change. The PfG also states that an updated position in our Energy Efficiency Route Map in December 2019 to accelerate the improvements of Energy Performance Certificate (EPC) ratings in our homes.

There is no decision as yet on the scaling up and acceleration of the EES programme. The updated route map is expected to be published alongside the CC Plan Update and the Heat Policy.

⁶ Without energy efficiency, the costs of decarbonising heat have been estimated to be £6.2 billion higher per year to 2050. See Imperial College London for the CCC (2018) [Analysis of Alternative UK Heat Decarbonisation Pathways](#)

The Scottish Budget 20/21 included an increase in the Energy Efficient Scotland budget, including an increase for domestic energy efficiency and fuel poverty programmes to £162m. While welcome, this increase falls well short of CERG’s call for a doubling of the budget to £240m with future multi-year funding commitments.

Expert advice

In its latest progress report for Scotland, the **CCC**’s recommendations on buildings for the Climate Change Plan Update stated:

Ensure that all buildings are as energy efficient as can be practically achieved and that low-regret forms of low-carbon heating (i.e. heat pumps in off-gas areas, hybrid heat pumps, and low-carbon district heating) are being rolled out at scale in the 2020s, as decisions are made about the UK-wide plan for the full decarbonisation of heat.

The **Infrastructure Commission for Scotland** highlighted heat and energy efficiency in existing and new buildings as a key area for focus. As noted by the commission, 80% of our existing buildings will still be in use in 2050, so it is essential investing in raising the energy performance standard of Scotland’s building stock remains an infrastructure priority. The commission recommended the following:

By the end of 2020, and to augment legislation already being considered, the Scottish Government should set out proposals to substantially accelerate the development and implementation of incentives, support mechanisms and standards for energy efficient, net zero carbon buildings across Scotland. This should include ‘whole building’ solutions and systematic public engagement, customised to the needs of different groups, to ensure that all property owners engage with proposed changes and are committed to upgrading their property.

The **Just Transition Commission** recommended building on the success of energy efficiency initiatives and supported CERG’s call for the funding of these schemes to be expanded. The commission called energy efficiency programmes ‘a good example of just transition in action’ because of the many benefits they deliver – in terms of health, jobs and the climate.

CERG proposed updates – Buildings

| Current Climate Change Plan | Amendments for Update |
|------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Energy Efficient Scotland will be reviewed and developed in the context of wider changes to heat policy.</p> | <p>ACCELERATE The Energy Efficiency Scotland Route Map should be updated to align with the new climate change targets and published by summer 2020. This should include commitment to almost all homes and buildings to reach at least EPC band C by 2030 and zero carbon by 2045. This commitment is accompanied by solutions to the current limitations of the methodology which underpins EPC’s especially in relation to decarbonising heat and rural properties.</p> <p>ACCELERATE Introduce mandatory energy performance standards for privately owned homes with</p> |

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| | <p>implementation by 2025 (with a 5 year foreshadow period) at point of sale and introduce a range of trigger points related to repair, maintenance and improvement works. The introduction of standards is accompanied by a well-resourced programme of support to ensure the supply chain (manufacture, assessment and installation), quality assurance, and process for exceptions.</p> |
| | <p>ACCELERATE Introduce building standards that ensure from 2021 the installation of fossil fuel heating systems in new buildings has stopped and that all new homes and buildings are built to an excellent level of energy efficiency and resilient to impacts of climate change.</p> |
| <p>Home Energy Efficiency Programmes: Where technically feasible by 2020, 60% of walls will be insulated and 70% of lofts in homes will have at least 200mm of insulation.</p> | <p>EXTEND Home Energy Efficiency Programmes (Warmer Homes Scotland, Area-based programmes) should be extended and made more flexible to include multiple measures, including renewable heat. Set new targets for fabric and renewable heat installations to align with new outcome targets.</p> |
| | <p>EXTEND Home Energy Scotland support increased to landlords and self-funding home-owners in terms of advice, hand-holding, loans and incentives to encourage voluntary action and compliance with regulation.</p> |
| <p>Decarbonising heat Establish solutions for switching heating supplies from high to lower carbon or renewable sources for properties off the mains gas grid, as well as encouraging appropriately-sited district heating.</p> | <p>NEW Introduce policy signal for the phase out of high-carbon fossil fuel boilers in existing off-gas properties from 2025 to drive accelerated installation of renewable heat devices.</p> |
| | <p>NEW Introduce ban on public funding for fossil-fuel heating technologies in domestic properties (exceptions allowed depending on circumstances) and fund renewable technologies instead.</p> |
| <p>Support decarbonisation of our buildings through the Renewable Heat Incentive. Consider what sort of funding mechanisms are needed to support low carbon heat technologies over longer time frames</p> | <p>NEW: Heat Transition Fund Create a heat pump sector deal as part of the Heat Transition Programme, to accelerate deployment where appropriate and work with industry to integrate with solutions such as smart systems, time of use pricing and electric and heat batteries, secure cost reduction and deliver supply chain benefits.</p> |
| | <p>NEW: Heat Transition Fund Implement real-world practical retrofit trial of 10,000 heat pumps and hybrid heat pumps</p> |

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| | covering homes, community facilities and SME businesses by 2021. |
| | EXPAND Increase capacity of Home Energy Scotland to provide homeowners and landlords with information/signposting regarding low-carbon alternatives at the decision point of installing and/or replacing heating systems from 2021 in the context of working towards all new heating installations being low-carbon and compatible with net-zero by 2035. Priority attention should be given to those who are fuel poor and off-grid homes. |
| Low Carbon Infrastructure Transition Programme to encourage investment in decarbonisation of business and public sector buildings | ACCELERATE Work on a zero-carbon buildings standard for public buildings should be accelerated and applied to new build and existing buildings. |
| We will support transition to low carbon heating by supporting the District Heating Loan Fund, which helps address the financial and technical barriers to district heating projects by offering low interest loans. | EXTEND The Heat Networks fund (£50m in 2020/21) should be turned into a 'Green Heat Networks Programme' that provides a comprehensive long-term roadmap showing how capital funding will combine with new regulations (Heat Networks Bill) to deliver a significant volume of heat networks from 2023, the date when new regulations are expected to take effect. |
| The Heat Network Partnership, a collaboration of agencies focused on the promotion and support of district heating schemes, will encourage capacity building and project development to support heat planning and programme delivery work that will be developed by local authorities | |

Transport (with focus on Zero Emission Cities)

Summary

Transport emissions make up a quarter of Scotland's climate emissions and are not yet falling. Current policies are not delivering against the outcomes in the Climate Change Plan and much bigger investment in city centre transformations for cycling and walking and stronger signals to the market for investment in zero emission transport, rebalancing the overall transport budget towards net-zero, are necessary. Zero emission cities will make for more liveable cities that offer international levels of desirability for both residents and tourists and provide clean air to breathe.

While cities are a vital and immediate focus, these policies should support transformations in towns the length and breadth of Scotland, where a high proportion of Scottish people live and where there tend to be poorer options for active travel and public transport.

Importantly this approach supports a just transition through expanding and creating affordable, clean transport for everyone - buses, cycling, walking and electric mobility – and helping to address local economic and equity challenges.

Scottish Government commitments

The PfG promises the following:

- Consult on Scotland's ambition to make the transformative shift to zero or ultra-low emission city centres by 2030.

- Provide an additional £17 million to support the demand for ultra-low emission vehicles (ULEVs) through our Low Carbon Transport Loan scheme, while expanding the scheme to include used electric vehicles.
- Decarbonise the public sector fleet by 2025.
- Form a new Strategic Partnership with electricity network companies to improve electric vehicle charging infrastructure and electricity networks across Scotland.
- Invest over £500 million in improved bus priority infrastructure to tackle the impacts of congestion on bus services and raise bus usage working with the Scottish National Investment Bank, the bus sector and potential investors to explore the potential for new forms of patient and innovative financing to radically accelerate the deployment of zero emission buses across Scotland.

The Scottish Budget includes £202m of targeted investment that supports decarbonising Scotland's urban environments and transport systems to maximise the use of public transport, walking and cycling, and creating more liveable and healthy cities. However, there is concern that this investment remains dwarfed by continued funding of roads projects.

Expert recommendations

In its latest progress report for Scotland, the **CCC's** recommendations for the Climate Change Plan Update on transport included:

Ensure that by 2032 (or even earlier if feasible) there is no need for anyone in Scotland to buy a petrol or diesel car or van. The necessary electric vehicle charging infrastructure and supporting policies would be in place, as well as infrastructure for public transport and cycling.

Engage with the public on emissions reduction opportunities to make lifestyle changes, such as more walking and cycling, having healthier diets, and adopting new low-carbon technologies including electric vehicles and low-carbon heating.

We support the **Infrastructure Commission for Scotland's** recommendations in relation to transport, which included:

The Scottish Government should ensure that its new National Transport Strategy and Strategic Transport Projects Review 2, which are due to be published during 2020, fully reflect the need to deliver an inclusive net zero carbon economy and consider the infrastructure and the use of it as a holistic system. This should include:

- *Aligning strategic investment decisions to address fully the requirement for demand management, a substantial increase in the proportion of journeys made by active travel, and opportunities for shared mobility as well as a much greater role for public transport.*
- *For such roads investment that is made as part of the above, a presumption in favour of investment to future proof existing road infrastructure and to make it safer, resilient and more reliable rather than increase road capacity.*

We note that these points are very much in line with the Sustainable Investment Hierarchy recommended by the National Transport Strategy 2 which was published in February 2020.

This approach calls for close integration with other policy areas including land-use planning (to reduce the need to travel and prioritise active travel and public transport) and health (to maximise health and well-being outcomes and address equity issues).

The **Just Transition Commission** focused on the need to support 'inclusive' low carbon infrastructure and highlighted bus transport as a good example. Low income households, young and older people are more likely to travel by bus and therefore benefit. Programmes to incentivize active travel would also be welcome.

The commission welcomed government investment in bus infrastructure ‘as an attempt to address the decline in bus passengers and reduce emissions’. This investment is equally important for cities, towns and rural areas.

CERG Proposed Updates – Transport

| Current Climate Change Plan | Amendments for Update |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Policy Outcomes</p> | <p>NEW Identify target for increasing percentage of mobility space for walking and cycling. As part of this effort, every arterial road into a town or city in Scotland to have segregated space for both walking and cycling by 2030 (within constraints for bus and tram services).</p> <hr/> <p>NEW Expectation that all Scottish cities should develop low emission zones into zero emission zones by 2030 – transformations that include active travel, pedestrianisation of key city centre streets, and e-mobility.</p> <hr/> <p>NEW National Planning Framework 4 and National Transport Strategy Delivery Plan requires implementation of ‘20 minute neighbourhoods’ in cities and towns where all needs – shops, schools, parks, doctors – are within a 20-minute walk – and easier to make journeys by bike.</p> |
| <p>Delivery</p> | <p>NEW Invest in infrastructure to support efficient integration between sustainable transport modes – walk/cycle/bus/train/tram, linking longer journeys and prioritising limited road space (Strategic Transport Projects Review 2).</p> <hr/> <p>NEW Provide guidance and resources to support local authorities to create local strategies to suit local circumstances in developing zero emission cities.</p> <hr/> <p>EXPAND National Planning Framework 4 should include requirement for developments to reduce the need to travel.</p> <hr/> <p>NEW Regeneration schemes and new developments are required to include infrastructure and services for an attractive bus offer.</p> |

Support an increase in active travel by doubling funding from £40 million to £80 million from 2018-2019 and supporting programmes to encourage travel behaviour change

NEW

Bus Priority Infrastructure fund can work together with Zero Emission Cities policy and Green Growth Accelerators projects to support coherent large scale transformation in mobility, while at the same time supporting small interventions which give 'quick wins' for improving bus experience.

EXPAND

Multi-year national funding commitment for active travel on upwards trajectory to ensure that delivery capacity increases at a reasonable rate reaching £160 million national funding by the end of the next parliament, equivalent to 10% of current transport funding and a per head figure on par with exemplar European countries (e.g. Netherlands). This should be accompanied by resource funding to support capacity and training in local authorities to deliver programmes.

NEW

Requirement (with national funding to support) to underpin maintenance/repair/liabilities of active travel facilities and infrastructure.

NEW

Green Growth Accelerator model must include outcomes for improved cycling and walking infrastructure.

Enhance the capacity of the electric vehicle charging network by supporting development of charge points for consumers and providing funding for town and cities to meet transition needs

EXPAND

As part of the Future Transport Fund, an increasing programme of investment in ULEV buses and charging infrastructure and support bus industry commitment (CPT-UK) for all new buses to be ULEV buses from 2025.

NEW (also applies to Buildings Sector)

Work with the UK and Ofgem to ensure the necessary and timely investment in Scotland's electricity networks through a robust and enduring regulatory framework which is reflective and supportive of Scotland's ambitions to transition to a net zero economy by 2045.

This will require new regulatory mechanisms, such as 1) allowing network operators to invest in their networks in anticipation of increased consumer demand; and 2) supporting flexible charging for transport and ensuring electricity

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| | connections are controlled and monitored down to the lowest voltage level. |
| Encourage uptake of ULEVs by providing interest free loans to consumers, businesses, taxi and the private hire sector. | EXPAND The Low Carbon Transport Loan scheme expands to meet growth in demand Scotland-wide and requirements of zero emission cities. |
| | EXPAND Extend support for electrification of larger vehicles such as HGVs in electrification and introducing 'hubs' on the outskirts of cities to help reduce congestion and first / final mile transport emissions. |
| Support the public sector in leading the way in transitioning to ULEVs, in particular local authorities in delivering low carbon public transport | NEW As set out in the PfG, introduce requirement on public sector to phase out ICE cars in the public fleet by 2025. |
| | NEW Developers must ensure charging infrastructure is included in all new developments, car clubs are available and cycle storage is provided. |

Industry (with focus on industrial cluster and CCS)

Summary

As with other sectors, a significant step up in action is required in the industry sector to avoid and reduce emissions, and then to capture remaining emissions in the heavy industrial sector. The current Climate Change Plan focusses mainly on energy efficiency and electrification of industrial heat, both of which are important and need to be accelerated to support the 2030 target. To reach net-zero, Scotland needs to prepare for CCS deployment in Scotland in the 2030s. This will grow and protect Scottish industry in an increasingly competitive low carbon market.

Scottish Government commitments

The PfG promised to 'explore with partners their proposals on Carbon Capture, Usage and Storage (CCUS) and this will inform our Scottish public sector response to the UK consultation on CCUS business models.' The PfG goes on to say the government will explore with the Scottish National Investment Bank how to support deployment of CCS in Scotland.

The Scottish Budget includes £220m for the Scottish National Investment Bank to support new financing approaches to decarbonize Scotland's industry, transport and energy systems.

Expert advice

The **CCC** progress report for Scotland recommends:

- *incentivise switches to low-carbon heat and improve energy and resource efficiency in industry.*
- *Work with the UK Government to ensure that policy mechanisms and infrastructure (e.g. CO₂ transport and storage, hydrogen clusters, renewable electricity support) are developed in a way that allows Scotland to decarbonise industry, roll-out greenhouse*

gas removals, and transform low-carbon electricity generation and distribution to enable electrification of other sectors.

It is our understanding that Scotland is well behind the front-runners in the UK for a CCS/hydrogen cluster (e.g. Teeside) and there is a danger that we will miss the opportunity of being part of wider UK activities as a result. Thus, cross-government engagement on this is a priority.

The **Infrastructure Commission for Scotland's** report noted the need for industry to work with national and local governments along with regulators on best routes for achieving both the decarbonisation of heat and transport.

The **Just Transition Commission** stressed the need for advance planning to aid the transition - 'a roadmap of actions taken by Scottish Government and industry through specific investments in infrastructure and skills development that will allow transition challenges and opportunities in individual sectors to be addressed.'

CERG proposed updates: Industry

| Current Climate Change Plan | Proposed amendments |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Policy Outcomes | |
| Technologies critical to further industrial emissions reduction (such as carbon capture and storage, carbon capture and utilisation, and production and injection of hydrogen into the gas grid) are demonstrated at commercial scale by 2030. | NEW St. Fergus/Grangemouth established as one of the UK industrial clusters incorporating Carbon Capture and Storage by 2030 as an essential piece of meeting Scotland's and the UK's net-zero ambitions. |
| Delivery | |
| | NEW Industrial cluster and CCS: Scottish Government, and its agency, Scottish Enterprise, champions development of joint plan with UK, local government and industry partners to align investment and coordinate action in supporting the development of the St Fergus / Grangemouth industrial cluster including CCS. CCS involves large risks and requires extensive coordination, which the private sector is unlikely to achieve. The industrial cluster would form part of the hierarchy of addressing emissions – avoid, reduce and capture (as last resort). |
| | NEW Industrial energy efficiency projects prioritised for funding through the Scottish National Investment Bank (SNIB). |
| | NEW A clear, long-term industrial hydrogen strategy coordinated by the Scottish |

Government. It is clear that hydrogen use in heavy industry will be necessary to reach net zero, starting with demonstrator projects in the 2020's focussing on heavy industries where this is expected to be the lowest cost decarbonisation option.

NEW

The Climate Emergency Response Skills Action plan should identify what future skills are required for CCS and how this could form part of the just transition for the oil and gas industry.

Agriculture (with a focus on Regional Land Use Strategies and the Agriculture Transformation Fund)

Summary:

The agriculture sector will need to play a more significant role in reducing Scotland's climate emissions going forward. Agriculture emissions have fallen by just 2% since 2008 and this needs to change. In addition, it is vital that farming practices continue to make a substantial contribution to Scotland's carbon sink, for example by enhancing above and below-ground carbon stocks. Food policy should also emphasise sustainable, climate-friendly, healthy diets, opening up opportunities for resilient, low carbon and biodiversity-sensitive food production. New initiatives and funding programmes are underway which could help turn the corner, but much relies on strong leadership from government in driving forward the regional land use strategies as the guide for funding in future.

Programme for Government:

The PfG promises the creation of a new Agricultural Transformation Programme and it commits the government to work on the Land Use Strategy by the Scottish Land Commission to explore ways to ensure it supports efforts to tackle climate change.

Scottish Budget

The Scottish Budget commits "an initial £40 million investment in the Agricultural Transformation Programme, supporting those who manage our land to take the actions required to deliver the Scottish Government's net-zero target."

Expert recommendations

The **CCC's** latest progress report for Scotland, the recommendations for the Climate Change Plan Update on agriculture included:

Support the necessary changes in Scottish land use that will underpin net zero. Changing the use of agricultural land is a major goal for Scottish policy, delivering meaningful emissions reductions on farms, and supporting the promised rapid and sustained increase in the rate of tree planting and peatland restoration.

The report also noted that 'The Scottish Government's plans for a long-term policy framework to replace the EU Common Agricultural Policy (CAP) are lagging behind both England and Wales. There is now an urgent need to define a post-CAP framework for the 2020s that can significantly reduce emissions from agriculture and deliver transformational land-use change across Scotland.'

The **Infrastructure Commission for Scotland** noted the need to account for 'natural infrastructure' in infrastructure planning and needs assessment. This includes natural capital

(e.g. ecosystem services) flood management, water and wastewater, and dovetails with the plans to change agriculture practice to meet net-zero goals.

The **Just Transition Commission’s** interim report noted the importance of ensuring that the ‘future of Agriculture support post-2024 reflects the importance of just transition for the sector.’ The commission believes there is an opportunity for the new framework to incentivise better land use management and reducing emissions, rather than focusing narrowly on food production.

A particular concern for the just transition is the use of **offsetting**. Given Scotland’s significant land area, including >80% of farmland being designated as LFA, there is high potential for increased use of land for carbon sequestration. This transition could and should support many farmers, crofters, tenants and rural communities into the future. However, where very large overall amounts of land are used for dedicated carbon sequestration (e.g. tree planting) Scottish food production risks being curtailed. A reduction in food production that results in lower food self-sufficiency and increased food imports is likely to off-shore emissions and may well actually increase them overall.

Aligned to the above there is a very real risk of ‘green grabbing’ whereby areas of land are bought up by private investors/corporates for carbon offsetting. Here, the livelihoods of tenants and cohesion of rural communities may also be put at risk. The use of private investment to support nature-based solutions in Scotland should therefore be approached with caution in terms of the risks of double-counting emissions reductions, off-shoring of emissions, and undermining of livelihoods (e.g. tenants) and rural communities. There are strong analogues here with REDD+ approaches overseas and we recommend that the Climate Change Plan Update takes note of the Cancun Safeguards and looks to provide a clear national framework for carbon sequestration and offsetting including standards and best practice guidance that protects at-risk stakeholders and is robust in terms of net emission reductions globally.

CERG Proposed updates – Agriculture

| Climate Change Plan existing targets, outcomes and policies | Amendments for Update |
|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Delivery | <p>NEW The Scottish Agriculture Bill should set out the post-2024 support regime, with rural support aligned to mandatory measures that deliver on the net zero target, this being urgently needed. The Bill should also be clear on timelines and implementation post 2024.</p> <hr/> <p>NEW The Land Use Strategy (LUS) is formalised in terms of its role in delivering on 2032 target and a nation-wide roll-out schedule identifying pilot areas for interim piloting of</p> |

new rural support systems, data collection, stakeholder engagement and governance.

Responsibility for coordination of the LUS in government is defined and resourced

Mechanism and process are established for how regional partnerships will be defined, how regional and sub-regional actors will be supported, and how regional and sub-regional actions and impacts will be monitored.

Governance of LUS needs to be clarified in terms of local authority(s), networks from that level down to individual land users and identification of capacity needs (e.g. training, skills, reporting metrics, decision support tools) for delivery of actions and reporting of outcomes back upwards through to LA/regional scale and aggregation nation-wide.

We will form an agri-tech group to help disseminate information and advice on climate change mitigation measures, as well as the latest advances in science, through a range of communication methods and technologies.

We will encourage greater uptake of precision farming; and provide information, advice, and practical demonstrations on the benefits of soil testing.

We will reduce emissions from the use and storage of manure and slurry by looking into the feasibility of large-scale anaerobic digestion, and we will engage with farmers to establish how they can improve manure and slurry management.

EXPANDED and NEW

Integrated with LUS, and delivered in part through the Agriculture Transformation Fund, a suite of farm-level mitigation actions overtly linked to financial support, to include mandatory soil testing for pH, nitrogen and carbon.

Strengthen current cross-compliance rules to improve minimum requirements, introducing specific rules to reduce emissions and protect soil carbon. The Agriculture (Retained E Law and Data) (Scotland) Bill introduces powers to change payments. 'Greening' payments could be better targeted and linked to necessary climate outcomes. As a first step, a new menu of climate and environment measures should be developed, with a subset of measures that must be delivered, eg soil testing, carbon audit, nutrient plan. Some of these compulsory options may then become cross compliance measures in long term, post-2024.)

Specific 'skills for net zero' programme for agriculture and land use sector (i.e. reshaping of existing programmes /development of new programmes at schools, FE and HE level to deliver LUS goals). Aligned to this training and expansion of farm-level advisory services in

context of net zero and new rural support system.

Commissioning of farm and regional-level 'land capability' decision support systems incorporating mitigation potential, food production, resilience, biodiversity, water and air quality metrics - these tools to be aligned with regionally-agreed frameworks for priorities, established reporting systems and support for this across stakeholder levels (e.g. capacity building at LA and public body level as well as down through to individual land use level).

NEW

Introduce ban on extraction and sale of horticultural peat in Scotland.

Conclusion

This document provides the Climate Emergency Response Group's proposals for the Climate Change Plan Update. The Update is a critical milestone in the Scottish Government's response to the climate emergency – building from the Programme for Government and the Scottish Budget. Together, these commitments should be taking hold in Scottish society, business and in the public sector. It should mean we are already changing our practices and priorities – responding to the policy signals, investments, incentives and regulation.

While we have worked with the existing structure of the Climate Change Plan for this Update, in future, we think the plan will need to focus more on the following:

- **Urgency and ambition: delivering 75% target.**
- **Immediate delivery: achievable policies and how they can be delivered in practice.**
- **Large-scale, systemic changes involving collaboration across sectors and organisations.**

In this context, we have considered what policies and mechanisms would actually deliver the 12 immediate actions set out in our original report – transforming Scotland's transport, buildings, agriculture and industry from day one. Importantly, we have also considered how these changes can be planned and implemented in a way that is fair and secures jobs, health, and well-being for everyone – a just transition.

We hope this is a useful contribution and guide for the upcoming Capital Spending Review. We look forward to supporting the government in this further development of a comprehensive and transformational response to the climate emergency.

This report is the synthesis and conclusions of the Climate Emergency Response Group only. The following organisations are proud to support the group’s important work to enable informed green recovery policy development.



For further information:

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