CLIMATE EMERGENCY RESPONSE GROUP

Eight policy packages for Scotland's Green Recovery

July 2020

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Executive Summary

The Climate Emergency Response Group (CERG) is a collection of likeminded leaders spanning Scotland's private, public and third sectors, which has used its collective experience and leadership positions to inform the Scottish Government's response to the climate emergency. The COVID-19 pandemic has created a public health and economic crisis, which has shifted the parameters of this response. A green recovery is a necessity, not an option.

This report is focussed on delivering practical, workable, solutions that the Scottish Government should be implementing now, in order to move Scotland towards a net-zero economy, while recovering from the COVID-19 crisis. The group is focused on the leadership role the Scottish government must take, in order to enable and facilitate action from other public and private bodies in terms of policy making, investments, and ability to transition to a net-zero economy.

The group welcomes the Scottish Government's commitment to the economic recovery plan which "supports Scotland's wellbeing and transition toward a greener, net zero country." The group's perspective is that the right recovery plans from Scottish Government can both rebuild the economy, building it back better, and accelerate Scotland's response to the climate emergency.

This report aims to answer the following questions:

- What are some of the areas where the Scottish Government should invest public money and incentivise private investment to deliver a fairer, greener, and more resilient Scotland as we recover from the COVID-19 crisis?
- What public spending, fiscal stimulus measures, and policy levers will achieve the most in accelerating Scotland's response to the climate emergency, whilst improving public health and wellbeing, equalities, and economic outcomes?

Through research and engagement with experts and stakeholders, the group identified eight priority policy packages which should form a significant part of the Scottish Government's economic recovery plans.

The policy packages are divided into four priority areas for the economic recovery and four strategies which describe the policy and fiscal approaches which should be deployed to ensure success. The policy packages are interlinked and overlapping – to maximise their benefits they need to be delivered together, and with urgency. These proposals build on our previous work on the climate emergency response, which identified 12 immediate actions, funding these actions, and what should be included in the new Climate Change Plan².

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¹ https://www.gov.scot/news/advisory-group-on-economic-recovery/

² https://www.changeworks.org.uk/cerg

Eight Policy Packages for a Green Recovery

Priority Areas

City and Town Infrastructure Transformation Programme

This package builds on the glimpses that lockdown has provided of what better city living could be like. It starts over the next 6-12 months by addressing social distancing challenges (especially providing more support for walking and cycling); and develops into a large-scale infrastructure stimulus (across buildings, transport and digital infrastructure), accelerating the necessary transformations of our cities and towns to make them lower-carbon and more liveable.

Retrofit buildings for a net-zero Scotland

Investment in the energy efficiency and low carbon heating of Scotland's existing buildings is a readily expandable infrastructure project that will deliver a job creation stimulus in the building trades in every part of the country, with numerous social, health, and economic co-benefits. This means accelerating and scaling up the Energy Efficient Scotland Programme, including a clear regulatory pathway. This is a stimulus programme that delivers a steady stream of activity over the next decade.

Rural jobs creation programme

With rural areas likely to be particularly badly hit by the economic effects of this crisis, and with large amounts of climate emergency work that needs to take place on our land, we propose a specific programme of rural job creation and support.

Green Enterprise Support

Additional financial support for companies emerging as a result of the systemic shock to the economic system that is occurring. This can ensure that new enterprises take advantage of the disruption in the system, embedding new businesses or social enterprises where this can contribute to accelerated 3hanneling3tion and wider public benefits, and in doing so creating additional jobs.

Priority Strategies

Unlocking private investment with greater policy certainty

The recovery must be investment-led, and the demand for high-quality investments remains much greater than the supply – evidenced by very low interest rates, resilient stock markets, etc. The Scottish Government can secure additional investment by creating an attractive policy environment for investors, resulting in stronger business cases for a climate neutral economy and 3hanneling investment in the right direction. This securing of private investment through greater policy certainty will be at least as important as the role of public sector investment.

Green Scrappage Scheme

Using public money carefully to unlock additional investment from businesses in the capital projects and machinery needed to accelerate our response to the climate emergency. This public finance will support firms to become more competitive whilst reducing their emissions and support supply-chain industries that are vital to the net-zero transition through a challenging period.

Green Future Skills

The economic recession will impact young people disproportionately and skills and education investment can help avoid this. We propose a package of measures, opening new educational opportunities for young people as an alternative to unemployment/underemployment and providing reskilling and retraining opportunities for already established workers. This package will prepare the whole workforce to contribute to the next phase of Scotland's accelerated climate emergency response.

Expanded Capital Investment Stimulus

As well as the specific urgent infrastructure priorities we have highlighted, a wider programme of capital investment across the next few years is necessary as part of our climate emergency response and will provide a steady stream of work. Low borrowing costs and the need to create sustained jobs make this the right time to deliver an expanded capital investment stimulus.

Key economic tasks

The group identified five key economic tasks for Scottish Government to undertake through its economic recovery plan.

- **Direct short-term job creation** through investment in capital infrastructure and resource budgets; support for specific business activities for public benefit; and enterprise support.
- Unlocking private investment and finance through long-term regulatory, policy and fiscal incentives.
- Locking in positive social change as a result of the public health measures.
- Investing in skills development and education to provide positive alternative to unemployment / underemployment.
- Directly supporting household incomes through the welfare system and one-off schemes.

Using these tasks, CERG has mapped the eight policy packages by their primary purpose to illustrate how they deliver across the necessary stimulus measures. For the task of 'directly supporting household incomes', there is less scope for 'greening' although a few small-scale measures (e.g. bicycle maintenance vouchers) were identified. However, many green measures will indirectly benefit household incomes (job creation being the most obvious, but also reducing fuel bills through energy efficiency).

CERG Green Recovery Policy Packages and delivery against economic tasks for the recovery

	Direct Job Creation	Unlocking Private Investment & Finance	Locking in Positive Social Change	Skills Development
PRIORITY AREAS				
City & Town Infrastructure Transformation Programme	X	X	X	
Retrofit buildings for a net zero Scotland	X	Х		X
Rural jobs creation programme	X	X		X
Green Enterprise Support	X		X	
PRIORITY STRATEGIES				
Unlocking private investment with greater policy certainty		X		
Green Scrappage Scheme		X		
Green Future Skills				X
Expanded Capital Investment Stimulus	X			

The report explores each of the policy packages, cross-sectoral implications, delivery against the economic tasks, and provides policy recommendations based on benefit to the economy, climate, and wider well-being.

Next steps

We recognise the Scottish Government is operating within tight fiscal constraints, exacerbated by the need to take extraordinary steps to support businesses and individuals to weather the immediate impact of the public health crisis. This means that it will be more important than ever to invest 'smarter' – blending public and private finance – to secure a robust economic recovery which is fit for the net-zero carbon future. In CERG's view this also means it will be necessary to reprioritise current spending commitments which risk 'locking in' high carbon infrastructure and behaviours and/or fail to support a just transition to net zero.

We encourage the Scottish Government to embrace these policy packages as key components of its economic recovery plans for a fairer and greener Scotland. These commitments should be reflected in the key milestones over the next few months – starting with the government's response to the report from the Advisory Group on Economic Recovery, and continuing with the Programme for Government, the review of the Infrastructure Investment Plan, and the new Climate Change Plan.

Introduction

The Climate Emergency Response Group (CERG) is a collection of like-minded leaders spanning Scotland's private, public and third sectors, delivery organisations and membership bodies. The group has been working since summer 2019 to inform and influence the Scottish Government's response to the climate emergency by providing practical, workable solutions that can be implemented now. The COVID-19 pandemic – a public health crisis – has led quickly to a global economic crisis that is severely impacting Scotland. In establishing the Advisory Group on Economic Recovery (AGER), the Scottish Government has signalled that it wishes its economic recovery to help the transition towards a greener, net zero and wellbeing economy. CERG welcomes this commitment from Scottish Government to aligning its economic recovery with its climate emergency response – an existential emergency that has not gone away.

The UK Committee on Climate Change (CCC) has written to the Scottish Government with their own initial advice on "Building a resilient recovery from the COVID-19 crisis" which has now been followed with more detail in its 2020 Progress Report to the UK Parliament.⁴ CERG developed its policy packages using the CCC advice as well as an early set of CERG principles for a green recovery which were sent to the Scottish Government in May 2020 (see annex 1).

It is clear that:

- COVID-19 has already had dramatic negative wellbeing impacts health, social and economic.
- Those impacts have fallen unequally; falling differently, and often more severely, on certain communities, demographics, sectors, and regions.
- Responding to these impacts will require new public spending, the incentivisation of private investment and new policy measures so that Scotland can build back better – to a greener, fairer, and more resilient wellbeing economy.
- We believe the right recovery plans can move us to a better Scottish economy and society, whilst also
 accelerating a just response to the climate emergency. In doing so there are significant opportunities to create
 jobs, improve health, create stronger local communities, and restore the natural environment.

³ https://www.theccc.org.uk/publication/letter-building-a-resilient-recovery-from-the-covid-19-crisis-to-roseanna-cunningham-msp/

⁴ Reducing UK emissions: 2020 Progress Report to Parliament, 2020, UK Committee on Climate Change

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Developing the policy packages for the green recovery

This report was developed through desk-based study and interviews with stakeholders and experts in economics, public health, education, inequalities, and climate change (see annex 2) as well as using the expertise of the CERG steering group.

Initial findings were explored at an online seminar, which tested how well the policy packages contribute towards immediate economic recovery, supporting the transition to a net zero economy and wider benefits.

The research builds on a body of previous work by CERG: 1) 12 immediate actions for Scotland's response to the climate emergency (August 2019); 2) Funding the 12 immediate actions for Scotland's climate emergency response (January 2020); and Scotland's climate emergency response: priorities for the Climate Change Plan Update (April 2020).

This discussion paper does not provide a comprehensive review of all the leadership actions that the Scottish Government needs to take to respond to the climate emergency. It aims to only identify those actions which by their nature fit well as part of our recovery from the COVID-19 crisis, and/or where the changed economic situation mean that policies, programmes or investment should be accelerated, expanded or changed in some other way.

Key issues created by the COVID-19 crisis

Economic

There has been an enormous impact on the economy in Scotland as a result of COVID-19, potentially of a scale not seen since the Great Depression of the 1920's. Those in low-pay jobs have been hardest hit so far, with the hospitality sector worst affected. An increase in financial difficulties is already occurring, with 50% of families with

dependent children reporting serious financial difficulty⁵. The UK Government's Coronavirus Job Retention Scheme (CJRS) has been successful at keeping many employees attached to their employer and protecting their incomes - there have been approximately 750,000 people benefiting from the furlough scheme in Scotland⁶. However, it remains likely that a significant proportion of this is 'hidden' or 'suppressed' unemployment, with sizeable numbers of individuals being laid-off as the CJRS begins to taper-off and eventually comes to an end⁷. The combined figures for unemployment and furloughed personnel equate to close to half of the pre-COVID-19 active Scottish workforce, demonstrating how widely felt the economic impacts of this crisis have been.

Although a transition from full-lockdown is beginning to take place, public health measures are likely to continue to constrain supply in the economy for at least a further 9-12 months. Some businesses may remain closed, while others have capacity severely constrained, limiting their economic viability.

It remains unclear what the shape of this recession will be, and how long it will last. In recent economic recessions, it has taken real GDP three to four years to recover, even with government stimulus measures, with the negative impacts of sustained unemployment lasting longer. As with other recessions, it is young people, those with fewer qualifications and those without savings that are likely to be hardest hit. Inequalities are likely to widen as a result of the crisis, as the wealthiest are best insulated, financially and otherwise, from this crisis and recession, and are most likely to be one of a minority of financial beneficiaries from the crisis so far – i.e. they have continued to work from home whilst having their outgoing costs constrained.

Meanwhile, impacts are falling most severely on lower-income households and those with low-pay and insecure work – in part due to the impact on the hospitality and tourism sectors. These economic impacts fall disproportionately on women, who are more likely to work in these sectors and roles. Evidence from elsewhere in the UK shows health impacts falling more severely on ethnic minorities. Further work is needed to understand how this crisis will impact other protected characteristics and minority groups.

This economic crisis differs from the 2008 financial crisis, with today's economic impacts beginning with constraint of supply. So far, a widespread financial crisis has been avoided, and at this stage it seems likely that central banks and the financial sector will continue to make credit available at historically very low-cost, at least to those individuals and businesses that are relatively low-risk. These factors make labour market interventions, including skills and education, more important than in 2008.

However, we can still learn from the economic stimulus policies of 2009. For example, energy efficiency programmes were quite successful, but they came to an abrupt end with no plans for sustaining progress. We have also learned from the immediate response to the COVID-19 crisis that advance planning is critical to prepare for an orderly transition and avoid chaotic and unequal impacts on society.

Climate Change

The lockdown of the economy has temporarily reduced greenhouse gas and air pollutant emissions, largely due to reduced travel demand and the temporary shutting of heavy industry. These reductions have come at enormous economic and wellbeing costs, through a disordered and hurried transition, and there has been no indication that emissions have significantly decoupled from either societal wellbeing or GDP. However, the public has now had – and appreciated - first-hand experience of the benefits of reduced travel - including cleaner air, lower noise, access to green spaces - all of which have been important to wellbeing during lockdown.

Going into this crisis, the Scottish Government's response to the climate emergency was beginning to gather pace following the Programme for Government announcements in September 2019. New policies were being developed across sectors, and new finance had been allocated to key areas by the 2020/21 Scottish Budget. However, gaps remained in translating policy ambition into policy delivery, and to this extent the necessary refocussing of government attention by the current COVID-19 crisis may have temporarily delayed our response to the climate emergency.

⁵ https://www.ippr.org/blog/covid-19-how-are-families-with-children-faring-so-far

⁶ https://www.ippr.org/blog/outlook-for-scotlands-workforce-furlough-job-losses

⁷ At the time of writing the CJRS is expected to continue to at least October 2020.

Key Economic Tasks for the Scottish Government

From this set of emerging economic themes, we have identified 5 key economic tasks⁸ for Scottish Government to undertake as part of mitigating the worst impacts of the current economic crisis, and plotting a path of economic recovery:

• Direct short-term job creation. Including:

- Increased direct government investment in capital infrastructure and resource budgets
- Supporting struggling businesses with cash for specific activities, particularly those with major public, social or economic benefit
- Enterprise support to support new business and social enterprise models that have the potential to create additional jobs

• Unlocking private investment and finance. By providing:

- Greater long-term business clarity, as a result of improved regulatory and policy foresight.
- o Immediate investment subsidies, in the form of grants, subsidies and/or tax incentives for investment.
- Locking in positive social change. Where beneficial social changes have happened as a result of the public health measures.
- **Investing in skills development** and education. This investment can both divert people into positive alternatives to unemployment, and, in the case of returning to study, remove individuals from the labour market, giving them a reskilling/upskilling opportunity, and freeing up entry-level jobs.
- Directly supporting household incomes. Where incomes have been reduced by unemployment or reduced employment, the government has an important role to directly support incomes, through the welfare system (where both UK & Scottish governments have responsibilities) and through one-off schemes.

⁸ Some of these tasks overlap - direct government job creation will leverage in private investment, either through co-investment mechanisms, or indirectly (for example in supply-chain firms carrying out work). The distinction here is useful, however, between the government intervention directly seeking to create jobs and seeking indirectly to do so by unlocking private investment. Similarly, (for example energy efficiency), government investment may help indirectly to support household incomes through job creation or through infrastructure investments. We have categorised measures by their *primary* purpose.

These tasks are aligned with key actions that have also been identified by the UK Committee on Climate Change (CCC) in their advice to the Scottish Government on the green recovery⁹:

CCC Principle	CERG linkages and comments
Use climate investments to support the economic recovery and jobs	CERG's identification of 5 key economic tasks for the Scottish Government breaks this principle down further.
Lead a shift towards positive long-term behaviours	This is equivalent to one of the five key economic tasks - 'locking in positive social changes.
Tackle the wider 'resilience deficit' on climate change	We agree that evidence-led preparations for the key risks facing the country are critical. The eight policy packages support, where possible, greater national and community resilience as well as economic recovery and reduced climate emissions.
Embed fairness as a core principle	The CCC highlight that this crisis "has disproportionately affected the same lower-income groups and younger people who face the largest long-term impacts of climate change". The eight policy packages we advocate are those that most fairly distribute the benefits and costs of the transition.
Ensure the recovery does not 'lock-in' greenhouse gas emissions or increased climate risk.	We agree the economic recovery plan must very definitely not support activity which is high carbon and is not aligned with the transition to net zero. See section 5.
Strengthen incentives to reduce emissions when considering fiscal changes	CERG has not undertaken work in this area for this report as we anticipate tax policies will not change significantly in the very near future. However, it will be necessary to maximise the use of all fiscal levers to incentivize the transition to net zero.

Using the set of five key economic tasks, CERG mapped potential climate policy solutions across the seven key sectors of the economy where most of our climate emissions occur and that therefore need to go through technological and social transition for us to achieve a climate-neutral economy (see annex 3)¹⁰.

Options that had significant economic and climate benefits were identified for four of these five key economic tasks. For the task of 'directly supporting household incomes', there is less scope for 'greening' although a few small-scale options (e.g. bicycle maintenance vouchers) were identified. However, many green measures will indirectly benefit household incomes (job creation being the most obvious, but also reducing fuel bills through energy efficiency).

⁹ Letter: Building a resilient recovery from the COVID-19 crisis to Roseanna Cunningham MSP, May 2020, CCC https://www.theccc.org.uk/publication/letter-building-a-resilient-recovery-from-the-covid-19-crisis-to-roseanna-cunningham-msp/

¹⁰ We have used the same sector definitions that are identified in the Scottish Government's Climate Change Plan: Agriculture; Land-use (and land-use change and forestry); Transport; Electricity; Buildings; Industry; Waste.

Policy options were sought that had the greatest co-benefits in terms of indirectly supporting household income; contributing to fairness (including by distributing benefits to those groups who have suffered most from the impacts of this crisis) and by providing other wellbeing aspects – social, health and other environmental benefits. The policy packages strive for good quality, well-paid jobs that will sustain the recovery for many years to come.

These identified and mapped policy solutions were then grouped into eight emerging policy packages. Each policy package is explored below, outlining the cross-sector implications and links to the five task areas, with policy recommendations and rationale based on benefit to the economy, climate, and wider wellbeing.

Reprioritisation for a green recovery and stopping highcarbon investments

A successful green recovery package will require significant public resources. Given current fiscal constraints, it is clear the Scottish Government and public bodies will have to reprioritise and step back from certain policy initiatives which are not aligned with an inclusive net-zero future. This will concentrate available public funding (resource and capital), capacity within the machinery of government, and political focus on supporting a fair and green recovery, learning from the COVID-19 crisis and creating resilience to future shocks. As an example, the CCC's latest report recommends that 'higher investment in resilient digital technology including 5G and fibre broadband should therefore be prioritised over strengthening the roads network.'11

There is an urgent need for the Scottish Government and public bodies to undertake a rapid review of existing public sector spending commitments to identify what activities should be continued, changed or stopped because they risk 'locking-in' greenhouse gas emissions or increased climate risk¹². The review should also look at public infrastructure projects which have 'neutral' - neither negative nor positive effects - on climate change emissions so they can be adjusted to actively contribute towards the acceleration of the climate emergency response and an inclusive recovery.13

While it has not been possible as part of this research for CERG to conduct such a comprehensive review, we are particularly concerned about planned increases to road capacity and the need to rebalance the overall transport budget towards net-zero. As the Scottish Infrastructure Commission highlighted, roads investment should be used "to future proof existing road infrastructure and to make it safer, resilient and more reliable rather than increase road capacity."14

Changing investment priorities will enable significant Scottish Government resource to be directed elsewhere in the short-term, developing project proposals for the infrastructure investments needed to take us to net-zero. There is ample evidence that these 'green' projects have a strong economic multiplier effect, can be quickly implemented, and support well-being.

Some reprioritisation can take place now, in terms of the current 2020/21 budget, with the forthcoming review of the Infrastructure Investment Plan providing an important opportunity for the medium to longer term. We believe this should include reconsideration of how investments made in the public estate (e.g. offices, schools, civic offices, hospitals, care facilities) can better support well-being and a net-zero future – using the Place Principle¹⁵ to drive more collaborative, community hubs and relevant investment, acting as a stimulus for local regeneration and an exemplar in low carbon operations. Future planning should take account of the changing pattern of work, with more home based

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¹¹ UK Emissions Progress Report, June 2020, UK CCC

¹² As referred to by the CCC in their letter of advice to the Cabinet Secretary for Environment Climate Change and Land Reform on 'Building a resilient recovery from the COVID-19 crisis', 6 May 2020. https://www.theccc.org.uk/publication/letter-building-a-resilient-recovery-from-the-covid-19-crisis-to-roseanna-cunningham-msp/ and in their progress report to the UK parliament on reducing emissions, June 2020.

¹³ For a useful explanation of Scottish Government categorisation of the carbon impact of capital spend, see briefing - Capital spend: locking in high or low carbon futures? October 2018, Scottish Parliament Information Centre https://spice-spotlight.scot/2018/10/16/capital-spend-locking-in-highor-low-carbon-futures/

14 Infrastructure Commission for Scotland recommendation 14, https://infrastructurecommission.scot/storage/247/FullReport_200120a.pdf

¹⁵ https://www.gov.scot/publications/place-principle-introduction/

and local based work and service delivery patterns. ¹⁶ Investing in active travel, better green space, repurposing assets, and low carbon buildings will help significantly shift behaviours towards zero carbon.

In terms of support for the corporate sector, significant amounts of public funding (from both UK and Scottish Governments) has already been channelled to the private sector, to ensure that employment was maintained in the short-term by companies. Going forward, providing funding to private sector businesses remains an option for protecting employment as the economic crisis harshens. In this regard, we support the Scottish Parliament's decision to prohibit firms or individuals who are registered in tax havens, or are a subsidiary of an offshore company, from getting support grants.¹⁷

In the medium to long term, it is CERG's view that public investment for activities and outcomes that are in the public good, rather than 'bail outs' for individual companies, is the most effective way to protect jobs and businesses from both an economic and climate change point of view and represents best value for the public purse. This accords with one of our principles for a green recovery - that spending should be aligned with net-zero commitments and maximise the wider benefits for local economies, public health and well-being, and energy security (see annex 1). This approach is even more effective when taken alongside regulations applied across whole sectors and is reflected in our eight policy packages.

The eight priority policy packages

This section includes detailed descriptions of the eight policy packages we have identified as priorities for accelerating Scotland's climate emergency response as part of a wider economic recovery package for a fairer and greener Scotland. The policy packages are divided into four priority areas for the economic recovery and four priority strategies which describe the policy and fiscal approaches which should be deployed to ensure success. These proposals are focussed on a just transition to a resilient net-zero economy, and their success should be measured by a broad set of indicators¹⁸.

These packages should be led by the Scottish Government, supporting and facilitating action from others. However, every sector will have its contribution to make to a green recovery that accelerates our response to the climate emergency – businesses, individuals, and civic organisations.

These policy packages are only those climate actions which fit well into a green recovery programme. They are additional and complementary to previous recommendations from CERG, which include more specific details regarding costs and delivery¹⁹. The packages show the strong synergies between the actions needed to help Scotland recover from the COVID-19 crisis and those needed to accelerate our response to the climate emergency.

The policy packages are interlinked and overlapping – to maximise their benefits they need to be delivered together, and with urgency. For example, immediate infrastructure investment (say in energy efficiency), should be complemented with support for skills development, and with a pathway of regulation that offers businesses a clear, long-term investment case.

Public health measures in response to the COVID-19 crisis place some limitations on the timing and sequencing of our proposals. This may delay the ability of Scottish Government to bring forward some measures. However, for our regulatory proposals, early and clear line of sight is vitally important to help businesses and individuals plan for the future. The sooner regulatory certainty is provided, the more confidence this provides for businesses to invest. Equally, while we have sought to identify the most shovel-ready initiatives, there are lead-in periods for some policies which need more development. There is no time to be lost with the implementation of these packages.

¹⁶ See example of South of Scotland Enterprise Agency which did not set up a new headquarters in a single location, rather use its investment to support a network of hubs which benefit a number of locations across the region; and community collaboration with the Highlands Small Communities Housing Trust on temporary accommodation, which in its initial stage will operate as a primary school, and then will empty out to become 4 houses to support local families https://www.ads.org.uk/learning_spaces2019/

¹⁷ https://www.theguardian.com/politics/2020/may/21/scotland-bans-covid-19-support-firms-tax-havens

¹⁸ The National Performance Framework, and its description of a sustainable and inclusive Wellbeing Economy aligned with the Global Goals (SDGs) should provide the basis for this https://nationalperformance.gov.scot/

¹⁹ Funding the 12 immediate priorities for Scotland's climate emergency response, January 2020, CERG https://www.changeworks.org.uk/resources/cerg-funding-the-12-immediate-actions-for-scotlands-climate-emergency-response

4 Priority Areas

City and Town Infrastructure Transformation Programme

This package builds on the glimpses that lockdown has provided of what better city living could be like. It starts over the next 6-12 months by addressing social-distancing challenges (especially providing more support for walking and cycling); and develops into a large-scale infrastructure stimulus (across buildings, transport and digital infrastructure), accelerating the necessary transformations of our cities and towns to make them lower-carbon and more liveable.

City and Town Infrastructure Transformation Programme										
Direct Job Creation Unlocking Private Investment & Finance					ocking in Positive ocial Change	Skills Development		Direc	tly Supporting nes	
Χ		Χ		X						
Agriculture	Land-	Use	Transport	Electricity		Buildings		Industry		Waste
	X			X	Χ					

What we propose:

Short-term (approx. next 6-12 months):

- An immediate walking and cycling boost in all Scotland's towns and cities, building on the initial allocation of £30m already made²⁰. This should include:
 - The reallocation of road space for pedestrians and cyclists, putting in place temporary/'pop-up' measures, whilst beginning work to make those measures permanent (including appraisal). This should be done at the same time as ramping up bus priority measures works (bus lanes) making best use of road space for sustainable and active travel.
 - Incentives for cycling including a voucher scheme that provides cash for bike repairs and maintenance; expansion to the Scottish eBike Loan to extend the support it provides to more individuals; a concessionary scheme for city bike hire schemes²¹, for example providing free access to young people under 25 and those who are eligible for concessionary bus travel and expansion of secure on street cycle storage.
- Amendment of planning rules to allow food/drink retail to use the adjacent road space (by closing roads/ limiting most vehicle access) to ease social distancing measures.
- Review, re-shape and re-purpose public sector land/building assets (buildings, land etc.) to create local community hubs to enable those with child-care / home schooling challenges to go back to work.
- Community health and wealth building fund: immediate new development funding for councils to ensure capacity to update plans and work on longer term strategies to shape their local place to be a vibrant, resilient society as well as economy. In the near term, smaller pilots could be modelled on the Edinburgh city centre transformation, with a view to scaling up in future. Plans should seek to:
 - work with Transport Scotland, Sustrans, transport operators and community stakeholders to cut through bureaucracy and accelerate immediate actions (learning from response to COVID-19 to act quickly in the common interest)
 - undertake planning and citizen engagement for later stages of this programme, identifying local proposals for city and town transformations.

Medium term (approx. next 1-3 years)

A comprehensive programme of infrastructure investment in rejuvenating Scotland's cities and towns^{22,} making them ready for a climate-neutral future. This should include:

https://www.transport.gov.scot/news/guidance-and-next-steps-for-passengers-and-transport-sector/
 Such as Transport for Edinburgh's Just Eat bicycles, and the Nextbike scheme in Glasgow.

²² As the CERG has previously called for - Zero Émission Cities https://www.changeworks.org.uk/resources/12-immediate-actions-for-scotlands- response-to-the-climate-emergency

- Further road space reallocation, including making temporary measures permanent where appropriate to local need, extensive bus priority measures, and other steps to improve user experience and connect active travel and public transport infrastructure.
- Supporting infrastructure for new and extended district heating projects, making use of opportunities to lay infrastructure as part of other works programmes.
- The wide-spread installation of on-street electric vehicle charging infrastructure to ensure a just transition to e-mobility.
- Support the decarbonisation of the Scottish bus fleet both buses and charging infrastructure (see Green Scrappage Scheme section).
- The completion of providing fast digital infrastructure to homes.
- Creation of freight consolidation hubs for last mile delivery.
- The creation of new and extended urban green spaces.
- Local energy generation and improved energy efficiency (see Energy Efficient Scotland section).

To deliver the above, local authorities will require additional capital resources which can ideally be blended with private investment – the Scottish National Investment Bank (SNIB) could play this role but will need more than the current funding allocation to deliver at the scale needed. The Green Growth Accelerators could provide another mechanism, although it is unclear how advanced these plans are and how they could support near term action.

Delivery could be complemented by a central Government 'Net Zero Delivery Team' providing scoping, feasibility and business case support to local authorities for infrastructure projects (as per the Heat Networks Accelerator proposed in the retrofit of buildings package).

This should be accompanied by putting in place a long-term pathway of vehicle regulation for our cities. The Scottish Government should work in partnership with local authorities and transport operators to implement zero emission cities by 2030, addressing critical air quality issues through Low Emission Zones en route. Support for transport operators will need to be ramped up considerably given the impact of COVID-19 on their revenue. A goal should be to create '20 minute neighbourhoods' in cities and towns where all needs – shops, schools, parks, doctors – are within a 20-minute walk and have easier to make journeys by cycle.

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 Scotlish people live and where there tend to be poorer options for active travel and public transport and a need for good connections to cities.

Why?

Economic rationale: Immediate actions will help reopen city and town economies more safely and quickly while public health challenges remain, dealing with physical distancing challenges for urban public transport and small food and drink outlets. The infrastructure improvements in cities and towns we recommend are 'shovel ready' (or can rapidly reach this point) projects which would provide immediate construction jobs. Making our cities more attractive and liveable will boost local jobs, businesses, and retail. It's also a cost-effective time to be doing this work while traffic levels are low – combining it with other low carbon infrastructure such as pipes for low carbon heat or electricity for emobility charging.

Climate emergency rationale: Transport accounts for 25% of Scotland's greenhouse gas emissions and these are not yet on a downward trend. We have an opportunity to capture new and positive behaviours as people shift to walking and cycling to maintain social distancing by making it easier, safer, and cheaper. It is also essential to use this period to improve our bus infrastructure, so it provides the best service possible – clean, fast, reliable, and comfortable – for when we can make full use of our public transport again.

Wider well-being rationale – social, health & environmental: The COVID-19 crisis has taught us the importance of good air quality, green nature-rich spaces for our physical and mental health, community cohesiveness for resilience. City and town transformations can support neighbourhoods to have good services, shops, schools, community hubs all within a 20 minute walk and with easier options for cycling – removing the stress and costs of commuting.

Retrofit buildings for a net-zero Scotland

Investment in the energy efficiency and low carbon heating of Scotland's existing buildings is a readily expandable infrastructure project that will deliver a job creation stimulus in the building trades in every part of the country, with numerous social, health, and economic co-benefits. This means accelerating and scaling up the Energy Efficient Scotland Programme, including a clear regulatory pathway. This is a stimulus programme that will deliver a steady stream of activity over the next decade.²³

Accelerate and scale up the Energy Efficient Scotland Programme										
Direct Job Creation	9			ocking in Positi ocial Change	ve	Skills Developm	ient	Directly Supporting Incomes		
X		X					X			
Agriculture	Land	l-Use	Transport		Electricity	В	uildings	Industry	1	Waste
						X				

What we propose:

Short term – (Next 6-12 mos.) – domestic and non-domestic buildings

- During period of physical distancing, support and intensify the recently restarted fuel poverty and energy
 efficiency programmes and prioritise the most vulnerable including those recently impacted by the COVID-19
 crisis. These schemes should maintain the fabric first approach and broaden to include renewable heat and
 storage installations where possible.
- Make clear the future regulatory pathway to provide certainty for both householders and businesses to invest:
 - Long term signal of mandatory minimum energy performance standard of EPC band C by 2030 and net-zero by 2045 (the standard must be accompanied by expected changes to the assessment methodology underpinning EPCs to align with low carbon technologies and net-zero ambitions).
 - Set expectation for phase out of high carbon fossil fuel boilers from 2025, and a separate date for the later phase out of gas boilers.
 - Commit to a Scottish heat pump sector deal which provides long-term market signals for accelerated installation (double year on year) of heat pumps in Scotland, linked to incentives and supply chain support.
 - Set high ambition on the heat network delivery e.g. by 2025 have invested £500m both public and private cash/delivered 30 new projects powered by low carbon heat. In this way, the pace of upgrades will be sustained over the next decade, and public investment can taper off as it is replaced with private funds.
 - o Bring forward net-zero new building standards (planned for 2024) and incentivise early compliance.
- Ramp up advice and support for domestic and non-domestic property owners/tenants through existing
 programmes (Home Energy Scotland, Energy Efficient Scotland Business Support), responding to need for
 additional advice due to increased home working and for businesses adapting or repurposing office space.

²³ This builds on the CERG proposal to 'accelerate Scotland's energy efficiency retrofit scheme' https://www.changeworks.org.uk/resources/12-immediate-actions-for-scotlands-response-to-the-climate-emergency

Medium term (1-3 years)

Tackle Fuel Poverty

Double the impact of the Warmer Homes Scotland Programme – increasing the number of homes upgraded annually to 10,000 and install renewable heat technologies instead of fossil fuel heating as a default.²⁴ This will require an increase in the spending cap per property.²⁵

- Double the impact of the local authority Area-Based Schemes, increasing the number of homes upgraded annually to 20,000 and install renewable heat technologies instead of fossil fuel heating as a default. The programme should have greater flexibility to install a wider range of measures to suit the property, and the spend per property will need to be increased.
- Support RSL's to meet the Energy Efficiency Standard for Social Housing (EESSH 2) so tenants are not put at risk of 'rent poverty' as housing associations struggle to pay for improvements while not increasing rents.

Support households (self-funding)

- Continue expanded advice and support for domestic property owners/tenants through Home Energy Scotland and local initiatives, signposting to financial support and forthcoming regulations.
- Expand renewable heat grants and loans (through Home Energy Scotland), promotion, advice and interest
 free loan support for the domestic heat pump market, together with the introduction of additional financial
 incentives with the aim of doubling year-on-year existing heat pump installations over the next two years. This
 should be in addition to the Renewable Heat Incentive.
- Heat Pump Innovation Programme: Demonstrate heat pumps in on-gas homes to test a heat-pump pathway
 for the majority of Scottish homes (as per CCC advice) and explore innovative solutions with mass-market
 potential (hybrid and smart²⁶ heat pumps).
- Incentive for voluntary compliance with future domestic energy performance standards at point of sale this could be a grant or an LBTT²⁷ exemption. This would incentivise the restart of the housing market, whilst also securing additional renovations work. This concept could also apply to bringing empty homes back on the market
- Facilitate local activity to build resilience and facilitate home working by supporting installation of local energy systems and low-cost energy efficiency measures through bulk purchase, quality assurance and local coordination. This could also include a mechanism to enable employers to contribute to domestic upgrades so their employees can work from home more comfortably and at an affordable cost.

Support businesses and the public sector estate

- A new non-domestic boiler scrappage scheme that provides financial support to private & public sector buildings installing low-carbon heat options to those who can't afford the upfront capital costs; and support for energy efficiency retrofit at time of repurposing / adapting business premises. This is additional to the RHI and could be matched with loan funding to provide a strong business case (see Green Scrappage proposal).
- Heat Networks Accelerator team within Scottish Government working with local authorities to accelerate
 district heating extensions and new project development, mobilizing resource and capital funding. The team
 could bolster local authority capacity and work with the district heating loan fund and key agencies (e.g. ZWS,
 SFT, EST) to identify early opportunities and enable local authorities to develop these, working up contractual
 templates & business models for use across all local authority projects. It could identify where heating system

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²⁴ On-gas properties should be assessed for their suitability to receive a heat pump; where this will require radiator or storage upgrades, a hybrid or smart²⁴ heat pump should be installed as part of a Scottish on-gas heat pump pilot programme

²⁵ In the majority of homes the fitting of a heat pump and insulation will lead to similar or lower heating costs. Heating oil prices have begun to recover following a coronavirus-induced slump and switching homes away from these fuels will insulate them from future price volatility.

²⁶ By 'smart heat pumps' we mean products and combinations of products that take advantage of more than one of: heat pumps; heat battery/storage; smart controls; time of use tariffs; other smart tariffs. These enable electricity use to be switched to periods of cheaper prices bringing prices at or near parity with a standard gas boiler system.

²⁷ Land and Buildings Transaction Tax – formerly known as 'Stamp Duty'.

- replacements are in close proximity and seed a new heat network, and help businesses identify and make connections.
- Supply chain support for retrofit and low carbon heat installations and manufacture: apprenticeships, qualifications, training & re-training (see Green Skills proposal).

Strategic approach

- Local Heat and Energy Efficiency Strategies (LHEES) will provide strategic oversight of issues such as fuel
 poverty and identification of priority zones for district heating, heat pumps and energy efficiency measures.
 These should be expanded to cover the whole of the local authority and used in the decision-making process
 for energy efficiency and low carbon heating.
- The energy efficiency and low carbon heat programmes should be expanded to included small scale energy generation, storage, and flexible energy systems in recognition of the wider role of electricity in decarbonisation.
- The Scottish Government, working with the Scottish National Investment Bank, should facilitate aggregation of building retrofits to provide scale, blending public and private funding over multi-year period.
- Procurement policy and practice should support community wealth building through the application of net zero targets and incentivising the use of local contractors and services. A circular economy approach to procurement will help increase local jobs through repair, remanufacturing, reuse and leasing opportunities.

Why?

Economic rationale: Energy efficiency is a rapidly expandable and scalable infrastructure investment, with extensive co-benefits and multipliers giving a good return on government investment²⁸. It is a labour-intensive investment²⁹, and will create jobs in all parts of Scotland, well aligned with this crisis which is likely to have severe economic impacts in all parts of the country. It can also contribute to tackling chronic disrepair and maintenance problems.

Delivered alongside a rapid increase in the take up of low carbon heat technologies, the jobs and manufacturing potential is even greater - with more opportunities for heating engineers, plumbers, construction and retrofit designers with large scale systems, individual heat pumps and integration with smart systems, time of use pricing and electric and heat batteries.

With the skills measures we propose (see Green Skills section), Scotland can establish a vibrant energy efficiency and renewable heat supply chain, supporting manufacturing, installation and maintenance as thousands of heat pumps are installed every year over the next decade to meet climate targets. The measures we propose will enable the supply chain to expand with a steady stream of future work on the horizon. Energy efficiency saves businesses and households money, which is highly likely to be reinvested elsewhere in the local economy.

Climate emergency rationale: Buildings are a significant source of Scotland's greenhouse gas emissions – the economy's combined energy heating needs account for almost 50% of all climate emissions. Tackling the poor quality of Scotland's existing building stock and putting in place the measures needed to move away from burning fossil fuels will require many years of investment.

Wider well-being rationale – social, health & environmental: We know that cold and damp buildings are bad for our health and well-being – a real concern during this COVID-19 crisis. People living in fuel poverty are at greater risk of respiratory and cardiovascular illnesses, more frequent and severe asthmatic symptoms, and increased depression and anxiety. If this crisis is to lead to a more permanent shift toward greater home working, improving the homes that are in worse condition is necessary to ensure that this social shift does not exacerbate inequalities, and people can experience a pleasant home and work environment without significantly increased bills.

²⁸ For domestic energy efficiency, this return has been estimated at £5 in GDP per £1 of government investment.

²⁹ Previous work has suggested energy efficiency alone can create 6,000 jobs in renovation and construction work in Scotland. Further additional jobs would be created by the district heating and heat pump measures we propose.

Rural jobs creation programme

With rural areas likely to be particularly badly hit by the economic effects of this crisis, and with large amounts of climate emergency work that needs to take place on our land, we propose a specific programme of rural job creation and support.

A rural jobs creation programme										
Direct Job Creation	9			ocking in Posit ocial Change	ve	e Skills Development			ctly porting mes	
Χ		Χ					X			
Agriculture	Land	I-Use	Transport		Electricity	B	uildings	Industry		Waste

What we propose:

The Scottish Government can directly create jobs that are in rural areas and deliver on the climate emergency in the following areas:

- A new initiative(s) to plant trees drawing on lessons learned from previous collaborative tree planting efforts such as the Millennium Forest, Central Scotland Forest, and the National Forests in England, and including community involvement.
- A long-term secure future for the Forestry Grant Scheme, including clear commitments to protect the core budget for woodland creation and management of existing woodlands for the next five years, would enhance the market signal provided by the Scottish Government's tree planting targets. This should underpin a steady, concerted, and sustainable approach to the expansion of the industry and would avoid 'boom and bust' problems of the past in tree planting and forest nurseries. Current Government funding (c.£50m per year) needs to increase to £60m-70m³⁰ to increase activity in line with the net-zero pathway; in the longer term private funding could be leveraged in through mechanisms such as the Woodland Carbon Code (WCC).
- Support for mixed and farm forestry, local processing of timber, community involvement and appropriate
 mixes of native and non-native trees would help maintain public (and farming) support for a rapid expansion of
 forestry and would deliver a diversity of rural employment opportunities.
- Innovative approaches to forest management need to be encouraged that focus on maintaining soil carbon, maximising carbon storage in trees and timber and reducing the carbon footprint of forest machinery and operations; with lower impact management approaches potentially supporting a greater diversity of rural jobs in the longer term. This approach to sustainable management of new and existing woods should be supported by establishing minimum management requirements e.g. by making FSC certification mandatory, and ongoing management as a condition of funding for new planting.
- Rural and farm advisors. There is a need to invest in the training and employment of more farm advisors
 through the existing advisory services who understand both farming and forestry and who can provide
 effective outreach to farmers and land-managers to help them overcome obstacles to tree planting. Longerterm, these advisors would use regional land use frameworks to advise individual land managers on priority
 actions to access and secure rural support, how to increase the positive climate impact of their land, and how
 further assistance can be accessed.
- Rural skills development support for complementary skills training in forestry and farming, to suit varied work
 throughout the year for local land workers and managers. Scottish Forestry and Forest and Land Scotland
 should actively foster local contractors.
- Support for more local processing for food and drink. By having more local processing this will not only increase employment, it will also increase the value added to primary products and protect the high food standards and reputation of Scottish food & drink and create a local food revolution in Scotland.

³⁰ https://www.wwf.org.uk/sites/default/files/2019-10/WWF Report VIVID Climate 2019 web.pdf

- Energy efficiency, renewable heat, and local energy systems. An expanded programme to cut the carbon
 footprint of existing buildings and local energy use (see retrofit of buildings proposal) will create jobs across
 the country, but it will be particularly effective case in rural areas, where many of the homes with poorest
 energy performance are located.
- Community work hubs: ease the structural shift towards home working through creation of local work hubs, repurposing buildings for mini hot desking offices. This helps reduce emissions and improves quality of life through less need for travel (see green enterprise package).

We see real potential for a rural skills and jobs matching scheme, including financial support for wages. This should target those who are unemployed, underemployed or who are at risk of unemployment as a result of the current economic crisis – and offer them upskilling, reskilling and skills diversification opportunities. Part of the objective for the scheme should be to partially remove established employees from the labour market, in order to protect the supply of entry-level jobs. Local organisations should be created (perhaps within the local authority) or contracted to deliver the scheme. They should piece together part-time work (probably across more than one employer) with training tailored to the individual. Employers should be provided with funding for releasing their employees to the programme, so that they can backfill entry-level staff into their firms.

These two examples illustrate the potential:

- One focus could be on better linking the tourism industry to the natural capital it derives much of its value from, restoring nature to benefit the climate and the tourism industry. A tourism business running at reduced capacity could release its underemployed staff to the programme, backfilling with an entry level role (a job created for a young person), and allowing its original staff member to earn a higher-level qualification in something like sustainable tourism, through getting practical experience of work in sustainable conservation management, alongside additional tourism-related qualifications.
- Another focus could be on agriculture, with the backfilling element being particularly important to enabling
 new, local entrants to the industry, whilst also allowing the permanent farm staff to develop new skills outside
 their current area of specialism perhaps in silviculture or in the latest research-informed climate-friendly
 agricultural methods. This support for diversification would help make the agriculture sector, and rural
 economy, more resilient. Wage support would be necessary for this to work, and to allow the staff to be
 backfilled.

We do not expect these climate jobs alone to fill the rural employment gap likely to occur as a result of this economic crisis. There's also a challenge in the mismatch between the skills and attributes that the new jobs will need, and the skills and careers of those who will have lost their jobs e.g. the tourism sector, though a range of expertise will be needed in terms of project management, facilitation, and community development to make the rural jobs programme a success. Taken together, these rural climate jobs are significant and additional, and will have a substantial local economic multiplier effect, helping to sustain other local services. It may well be that the Scottish Government will want to take forward these climate proposals as part of a wider rural jobs programme.

Why?

Economic rationale: Some parts of the country likely to remain hardest hit for the longest are in rural areas, especially where tourism supports a significant part of the local economy. This creates a clear need for additional direct job creation effort by government, to protect incomes for households in these areas, keeping families and individuals in these areas, whilst ideally increasing the breadth of skills they hold. Nature tourism is a significant part of Scotland's tourism base, and the value of Scotland's natural capital supports other industries in addition (e.g. food and drink). Taken alongside existing commitments to peatland restoration this investment in natural assets brings additional value to these sectors.

Climate emergency rationale: Addressing the climate emergency requires extensive and sustained additional woodland creation across Scotland. Landscapes also need to be adapted to climate change. Generally, for all these areas, the sooner this work is undertaken, the more positive it is for the climate, with few, if any, downsides to early action. More quality jobs available in rural areas will reduce the need to travel to large settlements leading to fewer emissions.

Wider wellbeing rationale – social, health & environmental: Restoration and management of natural assets such as woodlands, peatlands and watercourses are valuable for biodiversity, water quality and can help build resilience to climate impacts such as flooding. Local jobs are very important in rural areas, with a variety of jobs, working through the seasons, helping to reduce pockets of rural poverty.

Green Enterprise Support

Additional financial support for companies emerging as a result of the systemic shock to the economic system that is occurring. This can ensure that new enterprises take advantage of the disruption in the system, embedding new businesses or social enterprises where this can contribute to accelerated decarbonisation and wider public benefits, and in doing so creating additional jobs.

Green Enterp	Green Enterprise Support									
Direct Job Creation	9			Locking in Positive Social Change		Skills Development		Directly Supporting Incomes		
Χ	X			Χ						
Agriculture	Land	d-Use	Transport	Electricity		В	uildings	Industry	1	Waste
X			X	X				Χ		X

What we propose:

With the crisis acting as a shock to the economic system, catalysing innovation, there is space for new business models to emerge. While much of this can happen without governmental intervention, there are key areas where intervention will help establish business or community enterprises that have a wider public or strategic benefit, support accelerated decarbonisation, a more circular economy, and/or are in areas where there has been significant economic disruption created by the coronavirus crisis.

We can learn from the COVID-19 pandemic response which has highlighted the need for agile manufacturing capacity – not just for the health emergency but to support our transition to net-zero. There have been some excellent examples of this taking place such as brewers and distillers making handwash and various companies making PPE. There are prospects for community wealth building, shortening value chains, asset transfers, and boosting local economies. In all cases, investment in digital connectivity, especially in rural areas, will be critical to success.

We see particular benefits to additional public support for business and social enterprise in:

- Local Food Systems. An enterprise fund should be established, as a partnership between appropriate food system expertise and the enterprise agencies, to provide financial support, including grants and low-cost loans, to support business models that have emerged as a result of innovation during lockdown to transition to commercial models that will continue to be competitive once the economy reaches a post-vaccine state. It should support:
 - Local distribution business models that can rapidly connect Scottish produce to consumers. One aim of this should be to support greater production and consumption in Scotland of local fruit and vegetable produce.
 - Support to firms, such as those in the hospitality industry, with their development of permanent home delivery services, where they use more Scottish produce, produce low-carbon meals, or otherwise contribute to reducing climate emissions. This could include additional support for zero emission delivery vehicles, for transition to low-carbon, low waste business practices.
 - Additional processing capacity in Scotland, so that Scottish agricultural produce can be turned into higher value products. The current crisis has exposed a lack of processing capacity in the Scottish food system, making the system less adaptable and resilient.

- Longer-term consideration of how the financial support that goes into the food system might continue to support lower-carbon and higher-value local food systems.
- Vertical farming, industrial biotechnology platforms and applications such as legumes, microalgae, fermentation processes and insect farming which are complementary to 'traditional' food production systems for improved environmental performance and increased employment opportunities across food and drink supply chains.
- Community based public transport especially in rural areas. The mid-term economic concerns for public transport will be particularly difficult to manage in rural areas, where bus services were already operating at very marginal levels, and with low service frequencies. Community-based public transport models, such as ridesharing, minibuses, on-demand travel, taxis, and car clubs, are proving to be viable alternatives in some areas, feeding into transport hubs and connecting to buses and trains. While these network types face the same public health challenges in the immediate term as buses do, some of these models that can operate at lower capacities, and offer more flexibility looking to the future.
- The renewable electricity supply chain. We know that meeting climate targets will require the establishment of additional renewable generation capacity in Scotland and off its shores. The current economic downturn is an opportune moment to put additional effort into ensuring that more of the value of these projects is maintained in Scotland. Particularly for offshore and floating wind, we know that there will be significant amounts built across the North Sea, and that there will be international competition for the work to build and maintain these projects. Industry and Government should accelerate the work being undertaken through the offshore wind clusters to improve the domestic supply chain through both enterprise support and capital investment in ports and harbour infrastructure and materials production (see capital investment package).
- Community work hubs. The evidence³¹ suggests that the current crisis is likely to lead to a more permanent shift in office culture towards increased home and remote working. This is likely to have some positive climate change impact, as commuting is reduced. However, for the benefits of this to be more widespread and shared more equitably, additional community facilities will be required for those households that have found it more difficult to work from home at this time those with less household space and those with children at home. Public money should support those seeking to establish community work hubs that are attached to childcare facilities and other community spaces in urban, rural and commuter towns or suburban areas where commuter travel is most likely to be significantly reduced. We can learn from examples that already exist in Scotland, varying in size and service provision and business models. The public sector can also play a leadership role by offering unused office space for this purpose, encouraging reuse of office furniture and enabling their own staff to use these community work hubs, providing a regular income in return for reduced office costs.
- Circular economy business practices. The business disruption caused by the current crisis is a good opportunity to get businesses to move toward circular economy products and services, as they redesign their offerings particularly SMEs. An extension and expansion of the Zero Waste Scotland Circular Economy Investment Fund (currently at £18m over 7 years)³² and the corresponding advice provided through the Circular Economy Business Support Service will help SME's to identify and progress circular business models or technologies.

Why?

Economic rationale: With increased unemployment and business failures as a result of the economic impact of the crisis, job and business creation must be a key part of the recovery package. Enterprise support has been a key plank

32 https://www.zerowastescotland.org.uk/circular-economy/investment-fund

 $^{^{31}\,\}underline{\text{https://www.cipd.co.uk/Community/blogs/b/scotland}}\,\,\text{the}\,\,\,\text{blog/posts/working-from-home-in-scotland-a-permanent-shift}$

of economic development across both periods of recession and economic growth. On its own, enterprise support may not create significant numbers of jobs, but it is a strong complement to the other, more direct, proposals in this paper. These incentives will also help support publicly-beneficial directions of travel appearing from the disruption currently being caused to the economic system.

Climate emergency rationale: Our more specific proposals draw on necessary climate emergency transformations in different sectors:

- Food there are complicated trade-offs that determine what are the most climate-friendly diets from the consumer's point of view³³. Therefore, the most effective measures will be at the system level. While it is not the only factor, more local and diverse food systems with shorter supply chains have an important role to play in a climate-friendly food system than is currently the case and are more resilient to climate change itself.
- Transport greater use of public transport, and reduced need to travel contribute to reduced emissions.
- Renewable electricity support to supply chains is largely for economic benefit, to capture more economic value here in Scotland, but should help make Scottish projects more competitive for investment with those elsewhere, supporting the long-term case for renewable electricity generation for export in Scotland.
- Circular economy business practices reduce production emissions (both in Scotland and overseas) as fewer
 products are consumed and reduce waste emissions as more products are reused and recycled, rather than
 disposed of.

Wider wellbeing rationale – social, health and environmental:

- The loss of rural public transport because of the economic pressures created by social distancing requirements could have particularly concerning social impacts – increasing social isolation and mobility inequalities This makes interventions in this area of particular public value.
- Community work hubs will help spread the benefits of home working more equally otherwise those who already have higher incomes will benefit most from this shift.
- With the right policies in place, greater availability of healthy, local, and prepared food can be made more
 affordable, spreading the benefits and value of these services more widely and across income levels. Greater
 production and consumption of local fruit and vegetables has health benefits. With the labour of food shopping
 and food preparation falling disproportionately on women (regardless of employment status), affordable
 delivery and prepared food services can move this unpaid work into the formal work sector, with the potential
 to benefit gender equality.

³³ CERG called climate-friendly diet guidance to be developed, to provide the basis for individual choices, and for procurement policies, helping to navigate these trade-offs and decisions in its previous reports.

Unlocking private investment now with greater policy certainty

The recovery must be investment-led, and the demand for high-quality investments remains much greater than the supply – evidenced by very low interest rates, resilient stock markets, etc. The Scottish Government can secure additional investment by creating an attractive policy environment for investors, resulting in stronger business cases for a climate neutral economy and channelling investment in the right direction. This securing of private investment through greater policy certainty will be at least as important as the role of public sector investment.

Unlocking private investment now with greater policy certainty										
Direct Job Unlocking Private Creation Investment & Finance			ocking in Positi ocial Change	ve	Skills Developme	ent	Directly Supporting Incomes			
		Χ								
Agriculture	Land	d-Use Transport			Electricity	В	uildings	ldings Industry		Waste
X	X		X		Χ	X	, L	X		X

The lack of policy or supportive regulation (generally to level the playing field) is a key barrier to private sector investment, despite significant amounts of latent demand for green investments. There is a need to assess what regulations and fiscal levers (planning, rates, subsidies) will provide for viable economic cases for investment in the low carbon transition. In some areas where government policy is more developed, greater regulatory foresight is the next step (there is strong evidence³⁴ that increased and enhanced green regulation can unlock investment and support economic competitiveness); in other areas, it may mean government translating CCC advice into government policy or targets, or government clarity about technological 'choices'.

We identify areas where longer term signalling and regulation can enhance investor confidence and overcome fears of making 'the wrong choice'. These longer term signals should be given through the upcoming Infrastructure Investment Programme and the Climate Change Plan, together building a clearer view of Scotland's pathway to a low-carbon economy.

With policy certainty, government and business have a firm foundation from which to develop blended public – private funding models – for example 'co-investment' working with big purchasers on product development to fill market gaps, or co-financing through low cost debt such as the growth accelerator model. While smaller in scale, there is also scope to capture the current desire for more community action on local opportunities and aggregate different community funds, bonds, and voluntary expertise, building local financial resilience.

What we propose:

Near term (approx. next 6-12 mos.)

- Planning policy. Update existing planning guidance to enable new and existing onshore wind planning
 consents and enhance the competitiveness of Scottish projects. This will help ensure that Scotland secures a
 high share of Contract for Difference or alternatively financed onshore renewable projects in the coming
 years.
- Solar. Remove or substantially reduce business rates for subsidy-free solar on non-domestic buildings to
 encourage investment by firms and accelerate the deployment of local energy generation on unused roof
 space.
- **Procurement, net-zero and the circular economy.** Revise public procurement practices now and set out the directions of travel for low carbon public procurement in the future with a net-zero target. This will help create

⁴ https://www.aldersgategroup.org.uk/blog/more-than-red-tape-environmental-regulations-can-drive-growth

markets for new goods and services. It will also provide additional benefits by reducing overall lifetime costs and increasing the use of local services/manufacturers (and remanufacturers) rather than global supply chains – thereby improving resilience. The current 'upfront cost' price driven model stifles such innovation - lifetime costs should be used to assess procurement options. For example, the term 'most economically advantageous' could be amended so that it includes a higher priority for environmental/ sustainability considerations.

• Scottish National Investment Bank (SNIB). The bank can play a key role in designing, facilitating, and supporting blended public and private finance for projects. We need new structures for investment such as cofinance, equity shares, and innovative debt models. These interventions must be coordinated with the sectoral policies and aimed at those areas that require further de-risking such as heat networks, domestic energy efficiency (e.g. the aggregation of individual installations into a larger financeable package) – creating a pipeline of projects at scale over the next decade.

Medium - long term (approx. next 1-3 years)

These are core elements of the long-term plan for a green recovery and should be reflected in the Infrastructure Investment Programme and Climate Change Plan:

- Agriculture. Redesign of post-CAP rural policy regulatory framework (alongside advice and incentives) to secure delivery of integrated land use, such as more farm woodland and wetland creation, and delivery of public goods such as wildlife habitat and climate mitigation and adaptation.
- Land-Use. Enhanced regulations for the required use of timber in construction would provide certainty
 about an expanding future domestic demand for the key high value and long-term climate emissionstoring forestry product. 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.
- Transport. Zero emission zones that remove fossil fuel vehicles entirely (with minor exemptions) from cities by 2030 would create a clear regulatory signal, with sufficient investment time for developing alternative transportation walking, cycling, public transport, electric vehicles. Given the 12-15 year lifespan of buses, the need for clear policy certainty and accompanying support is critical. of Mid-term regulation for freight vehicles could drive vehicle investment, making use of recently increased business and profits for delivery companies.
- **Buildings.** Alongside the additional immediate stimulus measures we have suggested (in the separate package) a pathway of regulation for the energy efficiency of all buildings (including the owner occupier sector35, and non-domestic buildings) and for reducing the carbon footprint of all heating devices36 and the rapid implementation of exclusive heat network zones^{37.} This will be vital to allow the tapering away of public funding towards private investment.
- Industry. Clear government policy on the balance of different industrial heat decarbonisation options, between electrification, biomass and BECCS, CCS and hydrogen would support the development of small commercial-scale demonstration projects, and support investment in the routes chosen, even if over the 10-15 year timescales, given the long investment cycles of industrial machinery. Market signals for the use of netzero concrete, steel, and greater use of local and recycled construction materials, and so on, would provide statements of future demand.
- Circular economy: Investment in reprocessing infrastructure for materials such as plastics and textiles to
 avoid offshoring these processes and create local secondary materials markets, with significant job creation
 potential. Scotland's Deposit and Return Scheme is a catalyst for this but more could be done to aggregate
 secondary material supply chains to make private sector investment attractive.

³⁶ E.g. prevent new installations of high-carbon (coal, oil and LPG) boilers from 2025 and set a date (the UK CCC suggest 2035) for the end of standard gas boiler installations.

³⁵ Vast majority of owner occupied homes must be a minimum of energy performance standard C by 2030

³⁷ As proposed in the Heat Networks Bill. This may not take effect until 2023 and therefore early action in some major cities could help bring forward activity now.

Economic rationale (climate and wider benefits rationale covered in other packages):

- There remains plenty of finance and investment looking for secure places to land. Green investments have better weathered the economic crisis so far and demand by investors continues to outstrip available projects (even more so than before).
- The current crisis is creating huge amounts of short-term uncertainty, and this is displacing investment.

 Governments can increase their own investment to replace some of this in the short-term, but in the medium to long-term, private investment can, and will need to be, restored.
- In many areas, greater clarity will allow firms to make investments in skills and training, new capital such as
 factories or facilities, or simply to have a sufficiently clear future order book that the company can better
 weather the current economic situation. In addition, Scotland's low carbon electricity grid presents an
 attractive case for inward investment. All this will help keep people in employment, and new investment will
 deliver new jobs.
- The linking of stimulus measures with longer term policy certainty avoids risk of boom and bust cycles and the subsequent loss of the short-term economic benefits. In many areas, additional short-term investment by government can gradually taper off as the economy recovers, being replaced by private investment incentivised by policy and regulation.

Green Scrappage Scheme

Using public money carefully to unlock additional investment from businesses in the capital projects and machinery needed to accelerate our response to the climate emergency. This public finance will support firms to become more competitive whilst reducing their emissions and support supply-chain industries that are vital to the net-zero transition through a challenging period.

Green Scrappage Scheme										
Direct Job Unlocking Private Creation Investment & Finance			ocking in Positi ocial Change	ve	Skills Developme	ent	Directly Supporting Incomes			
		X								
Agriculture	ure Land-Use Transport			Electricity	В	Buildings Industry		1	Waste	
X	X				X		X			

What we propose:

Aimed at businesses, particularly SMEs, this scrappage scheme would provide a cash grant to businesses who are replacing high carbon equipment with low- or zero-carbon alternatives. This support should only be provided within the wider policy context of the other policy packages – firmly driving the low carbon transition. Opportunities include:

- Agriculture transformation build on the agricultural transformation fund with a scrappage scheme for old
 machinery where more climate-friendly replacements available, for example fertilizer application machinery,
 slurry stores and vehicles.
- **Bus scrappage scheme** a scrappage scheme for older, higher-polluting buses and coaches, reflecting the very challenging commercial circumstances that public transport operators will need to operate in while social distancing measures are in place. This would be supplemented by low cost loans and the government purchasing new zero-emission buses (taking advantage of low borrowing costs) and operating a leasing scheme to the bus operators, with the buses remaining, at least for the time being, in the public fleet. This must be taken forward in tandem with investment in the charging infrastructure.
- Boilers in non-domestic buildings. Supporting landlords or building owners to take advantage of current
 under-occupancy to replace gas and oil boilers with low-carbon alternatives, such as heat pumps and heat
 networks. This would supplement or match advice and support proposed as part of the retrofit of buildings
 proposal.
- Energy efficiency and industrial machinery. Some additional grant support could operate in partnership with financing available from the Scottish National Investment Bank to help those impacted industries and

stimulate investment. This should result in improved efficiency – and therefore reduced emissions and improved competitiveness.

Why?

Economic rationale: This scheme would provide an additional incentive to release private investment. To maximise the effectiveness and value for money of the scheme, it will need to support additional investment that would otherwise not have happened and provide other public value alongside reduced climate emissions. This can be firstly achieved by helping cash and credit-poor businesses, such as those in the agricultural sector – where the industry operates at very narrow margins, has limited cash reserves, and limited access to cheaper credit. Secondly, this can be achieved by protecting supply chain companies and manufacturers, who have seen new orders and work dry-up, with a steady stream of orders – as is the case in the bus manufacturing industry. The shift to low carbon technologies paves the way for good jobs for engineers and technicians.

Climate emergency rationale: we need to phase out fossil fuel transport, heating, machinery and improve energy efficiency to meet net-zero climate targets. Using this opportunity to invest in these areas will make these sectors fit for purpose in the future.

Wider well-being rationale – social, health & environmental: we have experienced improved wellbeing in lockdown with decreased air pollution and road traffic noise. Moving to more efficient and zero carbon equipment and vehicles will contribute to these benefits becoming permanent, with the hope that poor health and lung conditions made worse by air pollution will decrease.

Green Future Skills

The economic recession will impact young people disproportionately and skills and education investment can help avoid this. We propose a package of measures, opening new educational opportunities for young people as an alternative to unemployment/underemployment and providing reskilling and retraining opportunities for already established workers. There is a shortage of the relevant skills to achieve the transition to net-zero. This package will help prepare the whole workforce to contribute to the next phase of Scotland's accelerated climate emergency response.

Green Future Skills										
Direct Job Unlocking Private Creation Investment & Finance			ocking in Posit ocial Change	ive	Skills Developme	ent	Directly Supporting Incomes			
							Χ			
Agriculture	Lanc	l-Use	Transport		Electricity	В	uildings	Industry		Waste
Χ	X		X		X	X	X			X

What we propose:

Investment in education and skills is likely to be an important action throughout the economy. It will support education leavers facing a difficult labour market, increase access to reskilling and retraining opportunities, and help keep open entry-level jobs. Attention also needs to be given to the energy transition, particularly in the North East of Scotland where major job losses are occurring because of the immediate economic crisis, and where the workforce has valuable transferable skills. There is an important link to investment in digital connectivity to ensure all parts of Scotland can participate equally in the new skills and career opportunities. As a whole, 'climate skills' needed for these policy packages are broad – such as engineering, manual labour, construction through to community development, planning, strategy, and analysis. Particular opportunities include:

For school leavers

A Climate and Nature Emergencies Service Programme for school leavers, providing volunteer work and learning (this could be extended for those finishing higher and further education). This programme would provide a positive

alternative to: choosing to defer or not enter further or higher education, seeking work in a difficult jobs market, undertaking a traditional gap year (where opportunities particularly for travel are likely to be reduced) or falling into unemployment. This could be based on the German 'Voluntary Ecological Year' model, somewhere between gap-year and national service models. Scotland's Developing the Young Workforce Programme can help set up placements with third sector organisations and statutory bodies (such as the National Parks, SNH, local authorities) doing conservation and environmental land work in support of ramping up responses to the climate and nature emergencies. Effort should be made to ensure access to the programme is not dependent on financial background through providing housing, a stipend (which could be means tested on parental income) or allowing continued entitlement to benefits. This should be supplementary and additional to other job creation schemes, rather than as an alternative.

Apprenticeships

- Green Modern Apprenticeships: An expansion of modern apprenticeships in strategic climate skills areas a
 good proportion of these are vocational and well suited to apprenticeships. These should be focused on
 developing higher-skill flexible and adaptable workforces (e.g. car mechanics that are ready for the increase in
 EV numbers; or boiler engineers who will also be able to service heat pumps; hospitality and catering
 apprenticeships that serve sustainable tourism) that can work through the coming technological
 transformations.
- Particular emphasis should be given to higher-level qualifications and embedding minimum levels of
 education content; retraining (therefore needing expanded access beyond young people); providing (for a
 limited time, and perhaps only in the most impacted sectors) wage support to the employer to backfill; multiyear qualifications that support a flexible and broad skill sets; make use of intermediary bodies, such
 as apprenticeship training agencies to allow the employer wage cost to be spread across a larger number of
 employers, in effect enabling small (e.g. land-based businesses; or energy efficiency firms) to take on a parttime or seasonal apprentice.
- All of this will require a significant expansion of national apprenticeship funding and the expedited development of new and extended (e.g. higher-level or diversified) Modern Apprenticeship Frameworks.
- Climate skills should be embedded as a core skill³⁸ for all apprenticeships, alongside other core skills (current e.g. numeracy, ICT).

Colleges and Universities

A new requirement for universities and colleges to develop climate skills action plans as a condition of grant. The same model has been used to kick-start greater action on gender equality in universities and colleges.

Additional college and university funded places and/or bursaries ring-fenced to priority climate and green recovery areas. In line with just transition values, there should be a particular focus on open access courses and those that can be combined with continuing part-time work.

Climate skills and circular economy principles should be embedded in all college and university courses (Zero Waste Scotland is already piloting this with construction courses). The Scottish Funding Council is currently conducting a review of the higher and further education funding model in light of COVID-19. We believe it should also consider future green skills demand and environmental sustainability as changing the balance of provision for academic year 2021/22 needs to begin now (this links with unlocking private investment package as long-term certainty is required for investment in new courses).

Additional energy transition support

The establishment of a Renewables Transition Training Fund to support oil and gas professionals, supply chain businesses, tradespeople, and public servants to acquire the skills to join the renewable energy industry. This should be similar to the Transition Training Fund set up during the oil and gas downturn in 2015, which supported 4,091 applicants to train in new, related industries, including renewable energy. The fund should also help renewable energy companies to fill vacancies with staff transitioning from other sectors, to ensure the matching of skills support with

³⁸ https://www.skillsdevelopmentscotland.co.uk/what-we-do/apprenticeships/modern-apprenticeships/apprenticeship-approvals-group-aag/core-skills-and-modern-apprenticeships/

vacancies. There is a strong case for intervention for both short term high job creation in construction but also longer term operations and maintenance.

These policies could be delivered alongside or as part of the Climate Skills Action Plan that Skills Development Scotland and the Scotlish Funding Council are preparing. With many of the roles and skills that are needed to accelerate the transition in the traditionally male-dominated engineering and construction sectors, further work is required to address any gender bias and ensure these additional jobs are shared more equally.

Why?

Economic rationale: It is likely that there will be a disproportionate impact in terms of employment prospects on young people, those seeking to enter the labour market for the first time (e.g. school leavers), and those with fewer educational qualifications. Increasing the number of people in formal education (including reskilling and retraining) allows people to develop more skills (with those skills appropriate for a net-zero economy generally broadening and diversifying their skillset) while at the same time removing people from the labour market, creating vacancies that others can fill – spreading the temporarily reduced number of jobs in the economy further.

Climate emergency rationale: If we are to accelerate our response to the climate emergency, several key skills transformations will need to take place over the next decade, alongside the relevant sectoral technological or social changes. Without investment in developing these skills, a lack of skilled professionals will hold back the speed at which these transformations can occur, keeping us from achieving the necessary pace of overall decarbonization. For example:

- In transport, there will be a steadily expanding need for more maintenance specialisms related to electric vehicles, and fewer for internal combustion engines.
- In energy, there has already been a particularly severe economic impact in the North East of Scotland with the
 oil price falls associated with the economic crisis, and in the longer-term the number of jobs supported by the
 oil and gas industry will decline as oil & gas extraction in the North Sea reduces. At the same time, the
 number of jobs in the renewables industry will continue to grow, with particular expansion taking place
 offshore with offshore wind and floating wind installation and ongoing maintenance.
- In buildings, there will be skills requirements for the increased installation and maintenance of heat pumps, local energy systems and heat networks, and a need for individuals with broader expertise to support better heat system designing and sizing, and the delivery of integrated building improvements across all aspects of energy efficiency and heating.
- In agriculture and land use, there is a need for a sector-wide skills transformation, e.g. upskilling to support more precise techniques and new equipment; support for new entrants and additional roles (e.g. farm advisers); and more diversified skills (e.g. farmers may be managing woodlands as well as livestock).
- Across all parts of education, net-zero climate knowledge and understanding (including issues like circular
 economy understanding) should be seen as a key skill, part of readying an adaptable workforce for the future
 net zero economy and workplace. This capacity for adaptation and resilience is just as important for the
 workforce as it is for any of our other critical infrastructure.

Wider well-being rationale – social, health & environmental: Meaningful work is a key contributor to positive social, mental, and physical health. As we move to a net-zero economy green skills are going to be a necessity for securing long term work, which in turn enables individuals and families to participate in the local community and economy.

Expanded Capital Investment Stimulus

As well as the specific urgent infrastructure priorities we have highlighted, a wider programme of capital investment across the next few years is necessary as part of our climate emergency response and will provide a steady stream of work. Low borrowing costs and the need to create sustained jobs make this the right time to deliver an expanded capital investment stimulus.

Expanded Capital Investment Stimulus										
Direct Job Creation				Locking in Positive Social Change		Skills Development		Directly Supporting Incomes		
Χ										
Agriculture	Land-Use Transport			Electricity B		uildings	Industry	1	Waste	
	X		X		X	X		Χ		

What we propose:

Accelerating Scotland's journey to a climate neutral economy requires additional resource investment, around £2-5bn per year between now and 2050. While significant investment will be secured privately from firms and households, the role of public investment is very important (see the unlocking private investment package). Regardless of the current economic downturn, there was a need for increased public capital investment in the net-zero transition, and the crisis gives double cause for additional investment to be accelerated at this time. Investment can and should be focused on those projects that contribute to decarbonisation, wider social and community wellbeing, and that have ready expansion or project plans so that jobs are created while the economy is still in recession or recovery (within the next 1- 3 years).

At the same time, this is a period of significant fiscal constraint, so there is a need to reprioritize or repurpose current spending plans (see section 6) to ensure we achieve a fair and green recovery. A revision to the Scottish Government's Infrastructure Investment Programme is forthcoming and this provides the appropriate vehicle for the designation of reprioritised and additional infrastructure investment.

We have identified the following projects as good opportunities for a capital stimulus:

- The transformation of cities and towns (see separate package).
- Improvements in the energy efficiency of buildings and the widespread roll-out of renewable heat and district heating networks (see separate package).
- Accelerated improvements to digital communications infrastructure, to support reduced transport demand, increased home working and the establishment of more local businesses.
- Development of ports infrastructure along the North Sea, and other supporting infrastructure for offshore and floating wind development. These investments should be made now to give Scotland a greater chance of securing more of the supply chain, installation, and maintenance jobs for offshore wind projects across the North Sea.
- Scaling up strategic public electric vehicle charging points, and for on-street electric vehicle charging in residential areas where off-street parking is unavailable.
- Establishment of onshore carbon dioxide transportation infrastructure so that industrial sites and other major emission sources can in the future be connected to CCS storage wells offshore.
- Purchasing of electric vehicles in the public fleet, as well as the possible establishment of a publicly owned bus fleet that can be leased to operators (see separate package).
- Increased investment in the establishment of new woodlands and other nature-based solutions to climate change.
- Establishing community work hubs and more urban green spaces.

Across all government infrastructure investment, better value for money (particularly with regard to climate emissions) can be secured with improved procurement regulations³⁹, particularly Product Standards that ensure low carbon, and minimal environmental impact are the default. The Scottish Government should also require measurement against key performance indicators for net-zero and extensive training and support for public procurement professionals.

Additional economic stimulus and carbon emissions reduction can also be rapidly secured by extending existing infrastructure projects or maintenance projects to incorporate additional carbon saving measures. This could involve, for example, adding tree planting, wildlife bridges or a district heating network to an existing project, using materials with lower levels of embedded carbon or building to a higher energy efficiency standard.

While additional and expedited infrastructure investment is an effective fiscal stimulus, it will need to continue steadily, even as the economy recovers, if we are to successfully transition to a climate neutral economy. Further infrastructure investments are required over the coming years and a focus on the immediate economic stimulus should not come at the expense of continuing to prepare that steady pipeline of projects.

Why?

Economic rationale: Capital investment in public infrastructure has always been a core government response to economic downturns. The additional fiscal expenditure substitutes for lost private investment in the economy in the short term, while supporting economic development for the longer term. The policy packages in this report show where we believe the most immediately scalable and beneficial (not only in carbon terms) projects are – city transformation, improving existing buildings, and tree planting. These are all distributed projects, readily expanded, with widespread and immediate economic benefits (within 2-3 years). In addition, putting in place a steady pipeline of capital projects over the slightly longer term (next 5 years) ensures the sustained viability of firms carrying out the work, allowing investment in their workforces, and avoiding the risk of creating boom and bust.

Climate emergency rationale: Most of the main transformations that need to be accelerated in response to the climate emergency require significant infrastructure investment in our buildings, transport, industry, and land use.

Wider wellbeing rationale – social, health & environmental: These infrastructure projects generally have extensive positive co-benefits. Those that we have highlighted have particularly good health benefits (e.g. in terms of cleaner air, or access to green space), enhances equalities (e.g. extending access to electric vehicle charging to high density urban areas), and other environmental benefits (restored peatlands support cleaner water, and greater biodiversity).

³⁹ As previously called for by the CERG. https://www.changeworks.org.uk/cerg

Conclusion

Scotland's response to COVID-19 is a massive opportunity to catapult and prioritise a just transition to a net-zero economy. The Scottish Government is already committed to a fair and green recovery from this public health crisis. This report has identified specific policy proposals which can help make that a reality - directly addressing the economic concerns resulting from the public health crisis while stepping up our response to the climate crisis – an existential emergency that has not gone away. The packages have also been designed to make the most of the wider social, health and well-being benefits.

In developing these proposals, it became clear this crisis has already fallen disproportionately on young people, women, those already in low-wage, precarious employment and BAME communities. The necessity of delivering a just transition could not be clearer – we must ensure that the benefits and costs of our climate emergency response are shared fairly across Scotland. It has not been possible for us to undertake a complete equalities impact assessment of the eight policy packages, but where possible we've worked to ensure the policies help those at most risk of being left behind by transitioning to a net-zero economy. CERG encourages Scottish Government and others to undertake an equalities impact assessment when implementing its green recovery package.

CERG is aware that many of our proposals require significant public investment at a time when the Scottish Government is operating withing severe fiscal constraints. Therefore, our proposals look for ways to blend public and private finance, and we also believe it will be necessary to reprioritise current spending commitments to align with a net zero future.

The Scottish Government's leadership role in today's public health and economic crisis is also needed now in driving forward our collective response to the climate emergency. If there is one lesson we have learned from the COVID-19 crisis, it is the importance of preparation for known risks such as the climate change emergency.

Annex 1 – CERG principles for a Green Recovery Plan:

These principles for a Green Recovery were sent by the CERG to the Scottish Government in May 2020.

- Invest in the future we want and need a well-being and net-zero economy.
- Learn lessons from the fast, chaotic, and costly response to the COVID-19 crisis and provide for a wellplanned, rapid, and just transition to a decarbonised economy to protect us from the worst effects of climate change.
- Create and sustain meaningful employment and economic activity for those individuals and communities most severely impacted by the crisis.
- Assess all spending and policy responses for alignment with net-zero (e.g. near-term emissions impact, building of future capacity and alignment with longer term sector pathways) and maximise the wider benefits for local economies, public health and well-being, and energy security (e.g. green spaces; warm, affordable homes; active travel; e-mobility).
- Develop our preparedness and resilience to future crises, including through investment in natural assets, acting on scientific advice.
- Build and maintain public support for social and behaviour changes which are good for our health and the climate.
- Design and support sound investments which ensure timely delivery, ability to create and sustain jobs throughout Scotland, attract private finance, and have a long-lasting impact.
- Develop both central and local approaches, involving stakeholders, local communities and the wider public, to ensure they reflect local circumstances whilst maintaining overall focus.

Annex 2 – Expert interviews

The CERG secretariat has undertaken interviews with experts from the following organisations, in addition to interviews with CERG steering group members. All experts participated on a personal, individual basis, and the sharing of their time should not be taken as any indication of their or their organisation's endorsement of this report:

Name	Organisation
Gregor Auld	Just Transition Commission
George Baxter	Greenpower International
Rebecca Bell	SCCS
Sam Davidson	Secondary school teacher
Graeme Dickson	Individual
Dagmar Droogsma, Morag Garden, Peter Williams	Scottish Whisky Association
Jean-Matthieu Gaunand	Project Coordinator Edinburgh & Lothians Regional Equality Council
Ellie Grebenik	Energy Saving Trust
Russell Gunson	IPPR Scotland
Eleanor Harris	CONFOR
Charlie Hartley	Pale Blu Dot
Peter Kelly	Director, Poverty Alliance
Ben Kinross	National Society of Apprentices Scotland
Gerry McCartney (also Debs Shipton, Donna Burnett, Joanna Teuton)	Public Health Scotland
Pete Ritchie	Nourish
Arina Russell	Woodland Trust Scotland
Dr Jamie Stewart	Centre for Energy Policy, University of Strathclyde
Francis Stuart	STUC
Ruth Taylor	NFUS
Dr Katherine Trebeck	Advocacy & Influencing Lead at the Wellbeing Economy Alliance

Annex 3 Sectoral impact of the policy packages

	Agriculture	Land-Use	Transport	Electricity	Buildings	Industry	Waste
Priority Areas							
City & Town Infrastructure Transformation Programme			X	X	X		
Retrofit buildings for a net-zero Scotland					X		
A rural jobs creation programme		X			X		
Green Enterprise Support	X		X	X		X	X
Priority Strategies							
Unlocking private investment now with greater policy certainty	X	X	X	X	X	X	X
Green Scrappage Scheme	X		X		X	X	
Green Future Skills	X	X	X	X	X	X	X
Expanded Capital Investment Stimulus		X	X	X	X	X	

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.













































































