The Scottish Parliament
Pàrlamaid na h-Alba

Derek Mackay MSP,
Cabinet Secretary for Finance and Constitution

Roseanna Cunningham MSP,
Cabinet Secretary for Environment, Climate Change and Land Reform

By email only

c/o Clerk to the Committee
Room T3.40
The Scottish Parliament
Edinburgh
EH99 1SP

(RNID Typetalk calls welcome)
Tel: 0131 348 5240
ecclr.committee@parliament.scot

10 October 2018

Dear Derek and Roseanna,

Environment, Climate Change and Land Reform (ECCLR) Committee Pre- Budget Scrutiny: 2019/20 Draft Budget

The Committee welcomes the focus on national outcomes within the new budget process and the opportunity to engage with the Scottish Government in advance of publication of the 2019/20 draft budget. The Committee has been encouraged by the openness of this discussion.

In its pre-budget scrutiny this year the Committee sought to explore the opportunities to achieve wider benefits from environmental spend and to understand the carbon impact of all capital budget decisions, as infrastructure decisions today will lock in future emissions. The Committee issued a call for evidence and took oral evidence on 4 and 11 September.

In this letter the Committee comments on the issues raised in relation to preventative spend and the carbon impact of the budget and reflects on many of the issues identified in its report on the 2018/19 draft budget, as these continue to be relevant.

The Committee remains concerned that the budget for the ECCLR portfolio, for the relevant agencies and for research, has been declining for a number of years. The Committee is of the view that the impact of this is apparent when considered against the performance of the relevant national indicators, the majority of which have been declining or flat-lining. The Committee remains particularly concerned about the long-term impact of the decline in the research budget and the decline in the budget of SNH and Marine Scotland over recent years, and the impact of this on delivering key environmental, economic and health outcomes.

The finance received from Europe for environmental objectives is considerable, for example via LIFE, Horizon 2020, agri-environment funds and the EMF. These funds are critical to ensuring key national outcomes are secured through the delivery of significant projects and the leverage of additional funding. The Committee remains gravely concerned that there is still no certainty as to what will replace this. In its previous report the Committee recommended the Scottish Government work closely with agencies and partners and the UK Government to identify possible replacement funding streams as a matter of extreme urgency. The Committee would welcome a detailed update on progress, actions and outcomes.

The Committee considers there are significant opportunities to improve key national outcomes, including health, wellbeing and economic growth, through investment in our environment and natural capital and the Committee agrees with the Scottish Government that the natural environment is currently an under-utilised resource. There is scope for more innovative thinking and focus on preventative spend to secure and maximise the wider benefits to other portfolios, of environmental expenditure. The Committee would welcome further discussion on this and on the scope for leveraging additional funds into the ECCLR portfolio by looking at the positive impacts of spend to other budget areas such as health and the economy.

The Committee welcomes the Scottish Government commitments to increase the percentage of capital spend on low carbon projects, and the Cabinet Secretary's willingness to work with the Committee to provide "a national understanding of the direction of travel on emissions and input and proportion of spend" and to engage more widely when considering the carbon impact of the budget.

In its last report the Committee stated it was of the view that under the previous system of budget scrutiny the consideration of climate change spending failed to adequately review the Scottish Governments' spending plans to address this vital issue. The Committee committed to reflect upon the progress made by all committees. The Committee also stated it would welcome further discussion with the Scottish Government on issues around the content and timing of publication of the annual summary monitoring reports on climate change mitigation measures and the alignment of these with other key documents such as the draft budget. Whilst the Committee has made a number of specific proposals about how supporting information in relation to the budget could be improved, the Committee wishes to work with the Scottish Government over the coming months to ensure Parliament better understands the carbon impact of all budget decisions. We note the budget review group was a collaborative Parliament and Government process, included a number of external experts, and produced a detailed set of recommendations which have been taken forward into the new budget process. The Committee recommends taking a similarly strategic, ambitious and collaborative approach to ensure we understand the impact of Scotland's budget on Scotland's greenhouse gas emissions and we would welcome further discussion with you on this.

The Committee's views on preventative spend, the carbon impact of the budget and broader issues across the ECCLR portfolio are set out below and we would welcome further discussion with you on this.

As the issues the Committee raises relating to climate change cross the portfolio of a number of Cabinet Secretaries the Committee welcomes your sharing of this letter to ensure the Committee receives a comprehensive response to the issues raised.

Outcomes based budgeting

National outcomes should be at the core of the Scottish Government and public bodies' planning processes and the allocation of funding within the budget should directly support their delivery. In its previous budget report the Committee highlighted that when using the National Performance Framework as a baseline for assessing outcomes, it has not always been clear how the performance of organisations directly links to the national indicators they are associated with. The Committee considers there should be a stronger evidence base to link between the National Performance Framework, the budget and the work of the Scottish Government and public bodies.

A longer-term view and further work is required to improve our understanding, assessment, reporting and attribution of impacts on the national outcomes from activities funded in the budget. The Committee recommends the budget should provide clear information on the desired outcomes and the link to proposed expenditure.

The Committee is also interested in the merits of reviewing how other countries are seeking to track impacts as they implement their various sustainable development goals and would welcome receiving any related information or research from the Scottish Government.

Wider Benefits of environmental/preventative spend

In the Scottish Government's 2015 publication, "Scotland's Economic Strategy", there was a commitment that: "Protecting and enhancing this stock of natural capital, which includes our air, land, water, soil and biodiversity ... is fundamental to a healthy and resilient economy."

The Committee agrees that investment in Scotland's natural capital is both fundamental to the economy and fundamentally linked to the delivery of health and wellbeing benefits. There are significant benefits for climate change associated with investment in the environment and natural capital. The Committee is concerned that constraints on funding for Scotland's environment and natural capital will have a significant effect on achieving the national outcomes. The Committee heard that now is not the time to draw back from investing in the environment and the circular economy and the Committee encourages the Scottish Government to ensure there is a greater focus on 'invest to save' in the development and implementation of policy and in financial allocations to the environment and natural capital.

The Committee recommends the Scottish Government consider how the impacts, effects and benefits of cross cutting expenditure can be assessed, attributed and reported on, particularly in considering preventative spend on outcomes that cross portfolios.

Health benefits of environmental spend

The Committee heard that significant health benefits and savings to the health service can be achieved through environmental spend.

The Committee received evidence that of 8.7 m walking and cycling trips on Scotland’s national walking and cycling network, 78% of users said this helped to increase their level of physical activity. The Committee also heard that if 1% of the sedentary population were to move to a healthy pathway, a thousand or so lives would be saved, and £1.4 billion would also be saved across the United Kingdom. The Committee received evidence citing studies that state for every £1 invested in health walks £8-9 of benefits are derived.

Active travel is at the heart of Scotland’s policies to reduce air pollution and carbon. The Committee is aware that an estimated 2500 deaths in Scotland and 1500 early deaths each year result from air pollution. The Committee also received evidence that if Scotland met its ambition of 10% of journeys by cycle each year this would also save £364m as a result of improvements to air quality.

The Committee heard there is a strong link to lower levels of stress and associated health complications in individuals who live in greener streets and greener urban areas and particularly for people who live in areas of multiple deprivation. SNH referenced a project working with people with alcohol and drug dependency issues which took people from the central belt to the Borders and involved them in a planting scheme. The Committee heard the feedback indicated the rates of relapse to alcohol or drug dependency were much lower than among people on other programmes, and the evidence suggested that the outdoors was the crucial factor in those better success rates. The Committee also heard that the consequences of flooding, and the effects of this on mental health are a concern.

The Committee received evidence on programmes supporting the delivery of health benefits through environmental investment, including Our Natural Health Service and the Green Health Partnerships.

The Committee is of the view that there is further scope to extend the funding for the environment and natural capital and realise greater benefits for health and wellbeing. This will also require agencies to continue and extend their approach to collaborative working to promote wellbeing, recognising many of these changes will be generational and will not bring instant returns on investment. The Committee recommends the Scottish Government review existing research on the health benefits of environmental spend, and if necessary, commission research to underpin future spending decisions. The Committee also recommends the Scottish Government consider what more can be done to extend support programmes delivering health and wellbeing benefits.

Economic benefits of environmental spend

The economic benefits of environmental spend are well documented. The Committee is aware that current estimates suggest Scotland’s natural capital is worth around £20 billion per annum to the economy, including tourism, renewable energy, food and drink and other sectors. The Committee received numerous examples of this including:

- Tourism spend per annum generates £12.7bn of economic activity in the wider supply chain and £7.3bn to Scotland's GDP (in 2016 generating 207,000 jobs). The Committee heard that 50% visitors questioned said they came to Scotland because of the landscape and scenery. Visit Scotland said this is a key driver bringing visitors to Scotland and the importance of the environment cannot be overstated.
- SNH stated their £1.5 m spend on the SRDP agri-environment climate scheme generated £47m of additional benefit.
- The Royal Botanic Gardens of Edinburgh stated the £11m received from the Scottish Government in 2017 generated £38m to the Scottish economy and £102 million to the global economy.
- 8.7m walking and cycling trips on Scotland's national walking and cycling network generated £85m expenditure in the local economy.
- The Central Scotland Green Network will generate £6bn to 2050 and has the potential to benefit 70% of Scotland's population.
- The Cairngorms National Park Authority had a leverage rate of 225 percent.
- A natural-capital assessment of the net economic benefits from investment in green infrastructure in Stirling suggested the creation of a city park would bring an average of £280,000 every year in tangible benefits.
- The Committee also heard that investment in managing non-native invasive species could save £200 million a year by avoiding damage to forestry, crops and infrastructure.

The Committee is aware of SNH's Green Investment Fund and is keen to ensure that sufficient investment is going into Scotland's green infrastructure, particularly in urban areas. The Committee encourages the Scottish Government to extend the Green Investment Fund in order to realise the significant related benefits.

The Committee heard of the importance of education policy in mobilising teachers and children to access the environment and the wider benefits that can be derived from this. The Committee understands that SNH is involved in Learning in Local Greenspace which supports 100 schools in the 20% most disadvantaged communities and supports the Outdoor Learning in Nature Fund and Re-route, engaging young people with biodiversity. The Committee encourages the Scottish Government to provide enhanced funding to support outdoor learning. The Committee would also welcome information on the Scottish Government's current and future plans to support outdoor education and access via the national curriculum.

The Committee is supportive of the Scottish Government's ambition for a transition to a circular economy which will contribute towards the ambitions for the environment, economy, innovation and jobs. The Committee heard there are greater opportunities for public procurement to become a pull for new circular economy businesses, in particular using business models such as leasing and renting rather than buying products and services. The Committee encourages the Scottish Government to consider what more can be done to bring forward work on the circular economy and the green economy and provide related funding and support packages in order to fully realise the related benefits.

The Committee is aware of the need to address the risks posed by climate change to the environment and ensure it is more resilient to the impacts of climate change. The Committee heard that investment in the national ecological network is essential for climate change adaptation. Investment in peatland restoration and forestry planting is critical in supporting carbon sequestration and the management of waterflow, contributing to flood protection. The Committee encourages the Scottish Government to extend funding to these in order to achieve the significant related benefits.

Ability of organisations to lever funds

Funding from Scottish Government and the EU for environmental purposes can have a significant multiplier effect through leveraging other funding sources e.g. on the agri-environment scheme, SNH's plans to contribute £1.5 million in 2018-19 will potentially lever in £47 million-worth of benefits to the rural economy.

The Committee recognises that the impact of reductions in budgets (e.g.to SNH) will have significant knock on effects across the environmental sector in Scotland as funding is then unavailable for leverage to access grants and other sources of finance.

The Committee also heard that Scotland is not keeping pace with other parts of the UK in terms of securing environmental funding from trusts and other sources. The Committee is concerned about this and agrees with SNH that further work on the diversification of funding sources into the sector as a whole is vital.

The Committee asks the Scottish Government for detail of any work (current or planned) on assessing and meeting the anticipated funding gap when the UK withdraws from the EU.

Fiscal measures - charging and fees

In its pre-budget scrutiny the Committee did not explore the opportunities or risks that might come from increasing the proportion of income to support environmental projects that might come from fiscal measures e.g. charges and fees. The Committee is interested to hear of any work the Scottish Government has undertaken or plans in relation to relevant fiscal measures.

Carbon impact and carbon assessment of the budget

In seeking to understand the carbon impact of the budget the Committee commissioned analysis from SPICe on capital spend and this is attached in an annexe to this letter. SPICe used the Scottish Government's methodology and applied it to longer term capital expenditure data.

The Committee welcomes the increased low carbon capital spend demonstrated by the 2018/19 analysis and the high percentage of low carbon projects in construction. However, it is concerned that the infrastructure pipeline appears to have a lower percentage of low carbon projects. The Committee considers Scotland needs to 'lock in' the transition to a zero-carbon future now. This will require a substantial shift in the proportion of investment that is spent on infrastructure that does not contribute negatively to climate change. The Committee is also concerned to ensure that the proportion of low-carbon spend increases year on year. The Committee considers that carbon assessment needs to be embedded in the system from the earliest consideration of policies and actions. The Committee recognises the work of the Scottish Government in seeking to present an understanding of the climate impacts of the budget. However, the Committee considers significant improvements can be made to provide the Parliament with the means of understanding whether the government's spending plans will contribute to tackling climate change or lock Scotland into high-carbon behaviour.

The current approach to carbon assessment under the Climate Change (Scotland) Act 2009 provides a snapshot in time of the carbon emissions that are associated with the spend. It does not provide a cumulative sense of the consequences of the spend and it does not interact with the budget process. It is an after-the-fact description of the immediate carbon impact of the budget decisions, rather than a tool to inform and reflect and integrate with the budget development process.

The annual carbon assessment of the budget also does not present emissions associated with the capital budget separately from those are associated with revenue budget, but the Scottish Government's letter to the Committee helpfully does that for the five-year financial strategy. The Committee welcomes the Cabinet Secretary's willingness to consider that change in presentation for future reports.

Last year was the first time that the Scottish Government published information categorising its in-year capital spend as low, neutral or high carbon. The Committee welcomes the openness of the Cabinet Secretary to improvements in the methodology, for example to break down the larger areas of spend such as housing, roads, rail and health in order to provide more detailed information. The Committee would also welcome further discussion with the Cabinet Secretary on this.

The Committee also recommends that the Scottish Government include a high-neutral-low analysis of the infrastructure pipeline alongside future bi-annual updates to the infrastructure pipeline. As the Committee has previously stated, the budget, Climate Plan and Infrastructure pipeline need to "match up" and the Committee would welcome further discussion on this.

The Committee understands that last year's low-to-high analysis of the capital budget appears to have covered only 88 per cent of the expenditure. The Committee notes the Cabinet Secretary's clarification that the Scottish Government's commitment to annually increasing the percentage of low carbon capital applies to the Capital Departmental Expenditure Limit and not to financial transactions. The Committee welcomes the Cabinet Secretary's offer to provide more information on the carbon impact of financial transactions and any future opportunities loan funding can bring to carbon reductions in the private sector.

The Scottish Government's response to the Committee's previous budget report committed to providing the Committee with annual information on the proportion of the overall capital budget that is allocated to low-carbon projects and programmes. In discussion with the Committee the Cabinet Secretary stated this will be provided with the final budget as there may be changes between the start of the budget and the end. The Committee considers this timing to be unsatisfactory from a scrutiny point of view. The Committee is of the view that carbon assessments should inform decisions on the budget and should accompany the draft budget and be updated to take account of any changes in the final budget.

The Committee recommends that future Medium-Term Financial Strategy publications should provide an indication of the cumulative carbon impact of spend and present carbon from revenue and capital separately. This assessment should clearly set out how spending is contributing to reducing emissions. It should state the direct and indirect impacts and provide a forecast of the annual change in greenhouse gas emissions of the activities to be funded. This would enable a year on year assessment and comparison between budgets.

In evidence to the Committee, Scottish Water demonstrated practical experience of measuring and managing their capital carbon. The Committee encourages the Scottish Government to learn from their experience and facilitate knowledge exchange on carbon management across other parts of the public sector.

Infrastructure Investment Plan (IIP)

The Scottish Government's response to the Committee's last budget report committed to the next infrastructure investment plan taking Scotland's climate targets into account. The Committee welcomes the Cabinet Secretary's recognition of the need to look at further iterations of the IIP and the Committee considers this should take the proposed climate targets into account. The Committee recognises the challenges (and that information may need to be built from a project level) but considers there should be an overall environmental assessment of the IIP to ensure there is clarity about the direction of travel.

The Committee welcomes the Cabinet Secretary's commitment as part of this years' budget process to increase the amount of low-carbon capital spend throughout the Parliament's lifetime and the Committee seeks assurance that this is consistent with what is in the IIP

Infrastructure Investment Board (IIB)

The Committee sought assurance that the IIB has climate change at the centre of advising on the delivery of infrastructure commitments, and the options going forward and climate change impact of every spending decision is assessed. The IIB's remit includes sustainable economic growth but given the Scottish Government's low carbon ambitions the Committee believes that the IIB's remit should explicitly include reducing future emissions. The IIB proposes to measure its effectiveness through "relevant National Outcomes and ... related indicators". The Committee recommends the indicators measuring Scotland's environmental performance should be at the heart of this.

Local Authorities and other public bodies

The Committee is interested to understand how the climate change impacts of the funding for local authorities and other public bodies within the budget are considered and assessed. The Committee would welcome further detail of the Scottish Government's engagement with local authorities and public bodies to discuss their approaches to and assessment of the climate impacts of their budgets. The Committee agrees there is an expectation that local authorities and public bodies will show leadership in their response to the challenges of climate change but the Committee is unclear as to how this is progressing. The Committee plans to review the public bodies reporting duties, following the forthcoming reporting round. In the meantime, the Committee considers the Scottish Government should be providing guidance and support to public bodies on the reduction of their carbon footprint and in their carbon accounting. The Committee welcomes a view from the Scottish Government on this.

Advice on delivering low carbon infrastructure

The Committee considers there would be benefit in securing independent, objective analysis of the infrastructure spend of the Scottish Government and how it aligns to the climate change targets and maximises the impact of public spend. The Committee notes the creation of the Just Transition Commission and asks the Scottish Government whether its' role extends to the provision of advice on delivering low carbon infrastructure. The Committee understands the Low-Carbon Infrastructure Task Force recommended the establishment of a low-carbon infrastructure commission in Scotland to provide independent scrutiny as to whether the Scottish Government's long-term investment plans are fit for a low or zero-carbon future, where that infrastructure need is most pressing and where the gaps are.

The Committee welcomes the view of the Scottish Government on the merits of establishing an independent Low Carbon Infrastructure Commission. If the Scottish Government does not consider that this is the way forward the Committee asks for detail on how independent, objective analysis of the infrastructure spend is to be achieved.

Climate Change Governance.

The Committee welcomes the Scottish Government's approach of collective responsibility where all Cabinet Secretaries and Ministers have climate change at the heart of their work. The Committee also welcomes the Cabinet Secretary's assurance that if there are areas where this is not being achieved, there will be collective engagement to resolve that. The Committee notes the Cabinet Secretary's statement that there is a requirement to establish a new governance body for the delivery of the Climate Change Plan. The Committee seeks further information from the Scottish Government on the body, its remit and membership and the proposed timeframe to establish it.

The need for a more joined up approach

In its previous report the Committee stressed the need for a more joined-up approach between the Scottish Government draft budget and the forthcoming annual monitoring framework for the Scottish Government's Climate Change

Plan, to dovetail scrutiny and ensure this is a key part of climate change monitoring in the future. The Committee also commented on the parliamentary processes for considering the financial allocations to meet climate change objectives and the engagement of relevant committees and was of the view that a review of this is required. The Committee anticipates considering timing of publication of the monitoring report as part of its consideration of the Climate Change bill and, as stated earlier in this letter, is keen to discuss wider issues with the Scottish Government.

UK Exit from the EU – governance, adjudication and enforcement

The Committee is concerned that loss of the European Commission and the European Court of Justice and their role in environmental governance, adjudication and enforcement of environmental legislation will leave a gap in oversight and require a replacement governance and regulatory function (either at a UK or Scottish level), operating outwith and separate from Government. The Committee asks the Scottish Government to set out the associated costs of replacing the governance, adjudication and enforcement functions, relating to the environmental implications of the UK withdrawal from the EU and how the 2019/20 budget will account for this.

Climate Change Expenditure

In its previous report the Committee welcomed the overall increase in spending on climate change mitigation measures, but raised concerns about the reduction of particular budget lines and the impact of this in meeting the emissions targets. The Committee said more needs to be done in key sectors where there is little progress.

The Committee raised concerns that Scotland may not be investing sufficiently in low carbon infrastructure and recognised the potential difficulties in meeting the current (and potentially extended future) climate change targets. The Committee encouraged the Cabinet Secretary for Environment, Climate Change and Land Reform to actively engage with colleagues in the Cabinet on the capital infrastructure programme to ensure that this does not lock Scotland in to higher than necessary carbon emissions as we go forward to 2040 and 2050.

The Committee considered effective governance of the process for setting the budget, assessing its carbon impact, and ensuring the outcomes are delivered is vital. The Committee re-iterates its recommendation that the budget, or supporting documentation provides detail on this and on the interaction between Cabinet Secretaries and portfolios in the development of the annual budget.

As stated in the previous report and earlier in this letter, the Committee would welcome further detail on how Scotland's infrastructure investment plans align with Scotland's emission reduction targets including the more ambitious goals proposed in the Climate Change Bill and delivery of Scotland's Climate Change Plan.

Agriculture -The Committee previously raised concerns about the proposed reduction in funding to support emissions reductions from the agricultural sector and how that will impact the delivery of the Climate Change Plan.

Given that agriculture and related land use is the third largest source of emissions in Scotland there is significant potential for abatement. The Committee asks the Scottish Government to provide assurance that the agricultural emissions reduction targets are achievable within the identified budget.

Peatland Restoration - The Committee also had significant concerns that the proposed reduction in funding to peatland restoration would hamper the achievement of the goal set out in the Climate Change Plan to increase the rate of peatland restoration from 10,000 hectares in 2017-18 to 20,000 hectares per annum thereafter. The Committee asks the Scottish Government to provide clear detail on how the restoration targets will be achieved within the 2019/20 budget.

Renewable energy - The Committee previously expressed concern that there was a substantial reduction in the renewable and community energy and energy capital budget. The Committee encourages the Scottish Government to reflect on the impact of any further reduction in the forthcoming budget.

Sustainable Action Fund - The Committee expressed concerns about the impact of the proposed reduction of the sustainable action fund at a time when it is increasingly critical. This fund supports a number of new and innovative actions that will underpin much of the necessary success in driving behaviour change and action in new and challenging areas. The Committee asks the Scottish Government to reflect on this.

Research, Analysis and Other Services

The research budget underpins the delivery of a wide range of outcomes (directly and indirectly) and generates significant additional benefit to the Scottish economy. The Committee remains concerned that the overall budget for research has been declining steadily and significantly for a number of years.

The Committee is also concerned that withdrawal from the EU will greatly increase the risk to funding that can be levered from European research programmes and knowledge exchange from participation in cross-country collaborations and create difficulty in attracting and retaining international scientists as a result of the uncertainties.

In evidence last year stakeholders highlighted a number of challenges for the research community in Scotland. The Committee agreed that there needs to be a long term commitment to investment and capacity building in the science led by the main research providers that helps underpin public goods, services and benefits that are dependent on Scotland’s natural assets and capital. The Committee continues to urge the Scottish Government to focus on the strategic value of investing in research and development, to look innovatively at ways in which it can move to multi-year budgeting for its research programmes to provide greater certainty and secure the associated long term benefits.

The Committee was concerned that the capital budgets of the main research providers are increasingly coming under pressure as capital infrastructure ages and maintenance costs increase. The Committee welcomed the Scottish

Government’s stated approach to research funding on a full economic cost basis. However, there is clearly a challenge to maintain and improve infrastructure to ensure it is fit for purpose in the longer term. The Committee encouraged the Scottish Government to engage with the research institutions to see what more can be done to maximise the value of and return from their assets. The Committee would welcome an update from the Scottish Government on this exercise.

The Committee would also welcome an update on the progress of and plans for SEFARI, plans to establish a Plant Health Centre of Expertise and the potential to establish a centre focused on biodiversity and ecosystem health. The Committee asks the Scottish Government to provide an update on the timescale, scope and remit of the Committee’s recommendation to commission a related independent assessment of this.

The Committee would welcome further information from the Scottish Government on future plans for the contract research fund and plans to address any negative impacts of the previous decline in the fund.

The Committee previously encouraged the Scottish Government to review its research reporting requirements to ensure they are appropriate, effective and not over-burdensome for the research providers and individual researchers. The Committee would welcome an update on this.

Scottish Natural Heritage

The Committee has previously raised concerns over the decline in SNH’s budget and that the significant national indicators relating to Scotland’s environmental performance are either flat-lining or declining. The Committee was also concerned that the pace of development of much of SNH’s preventative spend work is continuing to be constrained by a lack of staff capacity and budget resource and it may become increasingly difficult to meet its objectives in the face of a continually declining budget.

The Committee remains firmly of the view that continued cuts to SNH’s budget will continue to compromise its ability to meet biodiversity targets, deliver peatland restoration and improve the condition of designated areas and consequently impact the delivery of the relevant national objectives. The Committee continues to urge the Scottish Government to ensure the budget of the organisation adequately meets the demands to be made of it.

The Committee is also aware that a significant element of SNH’s overall budget and monies to deliver natural heritage benefits in Scotland are derived from EU funding. In 2016 the Cabinet Secretary for Environment, Climate Change and Land Reform said that for her portfolio it is approximately £100 million over a five to six year period. The Committee remains concerned while there is an acknowledgement of the potential impact of both a reduced budget and the removal of EU funding for SNH and Scotland’s landscapes, habitats and wildlife there is a continuing lack of clarity as to the detail of this and what urgent work is underway to identify and access alternative funding streams for SNH and its partner organisations.

In its previous report the Committee urged the Scottish Government to work with SNH and partner organisations to prioritise planning to meet the anticipated funding gap for environmental projects following the UK exit from the EU. The Committee asks the Scottish Government and SNH to report on detailed actions to address this concern as a matter of urgency.

Biodiversity

The Committee seeks assurance that adequate funding to halt biodiversity loss ahead of the 2020 Aichi biodiversity target milestone will be made available. The Committee encourages the Scottish Government to consider what more needs to be done to ensure Scotland meets the 2020 Aichi biodiversity milestone and, if required, direct additional resource to this as a matter of priority.

Marine Scotland

Marine Scotland has experienced a falling budget and in previous evidence the Committee heard that the budget cuts Marine Scotland faced prior to 2017-18 did not allow for sufficient investment to realise Scotland's vision of 'clean, healthy, safe, productive, biologically diverse marine and coastal environments, managed to meet the long-term needs of people and nature' as articulated by the National Marine Plan. In previous written evidence Marine Scotland stated that any future budget reductions may reduce the overall amount of monitoring and surveillance resource available.

The Committee remains concerned that the performance of the Marine Scotland indicator is declining from improving last year to maintaining this year and is concerned that Marine Scotland may need to be better resourced to meet the conservation and recovery objectives of the Marine (Scotland) Act 2010 and achieve good environmental status for Scotland's seas. The Committee continues to seek assurance from the Scottish Government that the resource of Marine Scotland is, and will be, adequate to meet current and predicted needs – including completion of the MPA network, research and protection vessels – and this supports ecosystem based implementation though surveying, research, monitoring and reporting.

The Committee encourages the Scottish Government to continue and extend the programme of blue carbon research focused on the scope for carbon sequestration.

The Director of Marine Scotland previously stated there would be substantial implications for the organisation of the UK leaving the EU. The Committee understands the European Maritime and Fisheries Fund (EMFF) provides Scotland with approximately £96m over the current Programme period, which includes £30m of Marine Scotland's expenditure on science, data and compliance. Marine Scotland indicated there is no assurance that the £30m will be replaced by domestic funding. The Committee asks the Scottish Government how the 2019/20 budget will take account of this.

The Committee also previously expressed concern that Marine Scotland may be faced with the considerable task of developing and implementing a new legislative framework for fisheries outside the Common Fisheries Policy. The Committee would welcome a further update from Marine Scotland on the actions it is taking to manage this and other challenges resulting from the UK withdrawal from the EU.

Scottish Environment Protection Agency (SEPA)

SEPA's budget has also been declining over a number of years The Committee previously expressed concern that a reduction in funding for SEPA may have contributed to the lack of progress in SEPA relevant national indicators (to increase natural capital and reduce Scotland's carbon footprint (maintaining) and to reduce waste generated (worsening). The Committee encourages the Scottish Government to reflect on this. The Committee is also aware that the UK exit from the EU is likely to impact SEPA and welcomes additional information on this.

Environmental Governance/ Enforcement

The Committee understands the Scottish Government intends to consult on the frameworks for environmental governance following the UK exit from the EU. The Committee is aware that there is likely to be an additional funding requirement to support effective governance and enforcement to ensure we maintain our natural assets and natural capital. The Committee would welcome a view from the Scottish Government on the likely additional associated resource requirement for this in 2019/20 and beyond.

Land Reform

The budget for land reform has increased in recent years, partly to support the establishment of the Scottish Land Commission, and the Committee welcomes this. The Committee is currently considering the establishment of the Register of Controlled Interests in Land and will explore the need to increase funding to support its development and delivery with the Cabinet Secretary for Environment, Climate Change and Land Reform on 23 October. The Committee remains keen to see the Scottish Land Fund resulting in progress on the ground, however it notes that there has been an underspend in the Fund and is keen to avoid an under-spend in 2018/19. The Committee asks the Scottish Government to provide detail on any underspend in 2017/18 and anticipated underspend in 2018/19. The Committee continues to encourage the Scottish Government and the Scottish Land Commission to pro-actively promote the Fund and the use of it to support land reform and community right-to buy and assist and facilitate community's knowledge of and access to it.

Yours sincerely,

Gillian Martin MSP
Convener
Environment, Climate Change and Land Reform Committee

CLIMATE GOVERNANCE OF CAPITAL EXPENDITURE

The Committee has agreed to focus its budget scrutiny on:

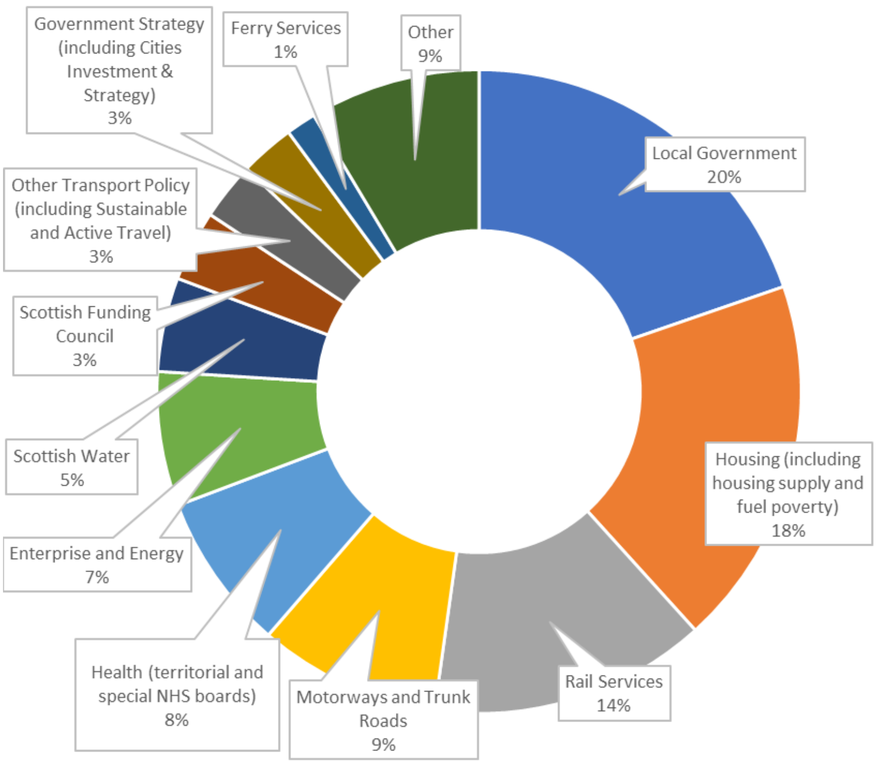
1. preventative spend in the ECCLR portfolio
2. the carbon impact of the capital budget across all portfolios

This paper addresses the second focus. It provides background to the capital budget, a rational for climate governance in this area, describes existing carbon assessments and presents SPICe analysis of various investment plans and approaches.

Capital expenditure in the Scottish Budget

The 2018-19 Scottish budget includes nearly £4.5 billion of capital expenditure. This is allocated to infrastructure projects such as the construction of homes, roads and rail.

Figure 1: capital spending plans in the Draft Budget 2018-19



Source: Draft Budget 2018-19.

Capital spending in the Scottish budget is financed from several sources, the most significant of which is the UK Treasury.

Table 1: sources of capital in the 2018-19 budget

Source	Value (£m)	Note
UK Treasury - capital budget limit	3,413	Scottish Draft Budget, Table 1.02
UK Treasury - financial transactions	489	Scottish Draft Budget, Table 1.02
Scottish Government - capital borrowing	450	Scottish Draft Budget, Table 1.02
Planned carry-forward from 2017-18	94	Consisting of £54.5m Capital & £40m FTs
Total	4,446	Scottish Draft Budget, Table 1.05

Source: Draft Budget 2018-19, correspondence with Scottish Government.

In addition to the traditional forms of funding infrastructure projects, there are a number of other more innovative approaches, including:

- Non-profit distributing (NPD) – a form of public-private partnership whereby the private sector pays the upfront capital costs of an infrastructure project, while the public sector makes annual repayments, usually for 25-30 years, out of revenue budgets (as opposed to capital budgets). Changes to European accounting standards now require full capital cover for NPD projects. No new NPD projects are being considered by the Scottish Government at present.
- Regulatory Asset Base (RAB) for rail investment. However, Network Rail's reclassification from a private to public sector organisation means that future rail projects will be entirely grant-funded.
- Hub - joint ventures to develop community facilities in five HubCos across Scotland.
- Tax Incremental Financing, Growth Accelerator (both managed by the Scottish Futures Trust), **City Region Deals, Growth Deals and Regional Partnership Plans**

Other notable approaches to public-led financing of green investment are the UK Government's Green Investment Bank (which is now owned by a Macquarie Group-led consortium) and the European Investment Bank (owned by EU Member States).

What defines capital expenditure?

- Under UK fiscal rules, capital budgets may only be used to support long-term investment or maintenance that will extend the life of existing assets, and cannot be used to fund additional "day-to-day" expenditure (i.e. revenue expenditure).

About the Scottish Government capital programme

- Capital spend currently represents almost 14% of the Scottish Government's discretionary spending plans.
- Capital in the Draft Budget 2018-19 increased by 10.3% in real terms compared with the previous year, and is expected to rise again in the 2019-20 budget.

- The Scottish Budget allocates capital (and resource) expenditure limits across government portfolios. Local Authorities were allocated almost 20% of the 2018-19 capital budget (£876 million).

Scottish Government priorities & governance for capital expenditure

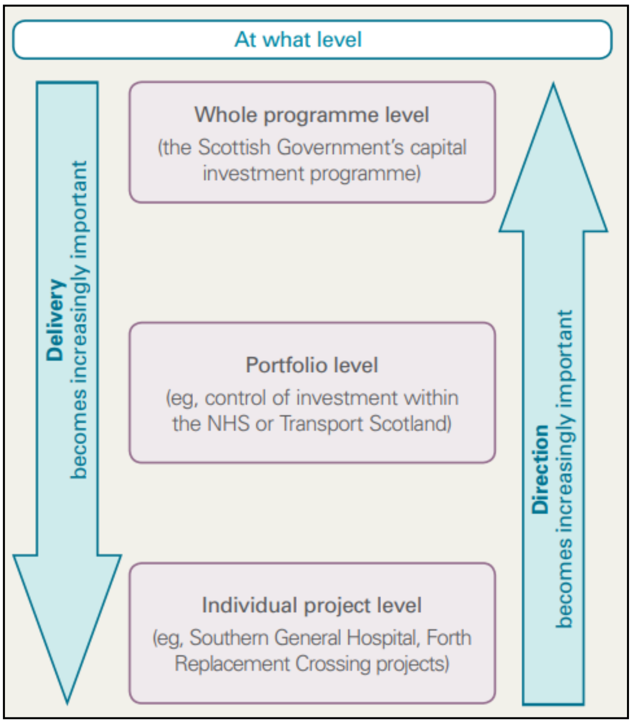
The Scottish Government sets out its long-term plans for infrastructure investment in its Infrastructure Investment Plans (IIP). The first IIP was published in 2008 and updates have been published in 2011 and 2015.

Through the annual budget process, the Scottish Government allocates capital budgets to portfolios to deliver on their various capital plans. Given the nature of capital investment, where there can be delays due to the weather or other unforeseen circumstances, the Scottish Government can use in-year Budget revisions to shift money between portfolios to meet different pressures and demands.

While responsibility for individual capital projects sits with accountable officers within the relevant portfolio or authority (e.g. the NHS or Local Authority chief executive), responsibility for strategic decision-making on public finances sits with the Cabinet Secretary for Finance, Economy and Fair Work, Derek Mackay. Responsibility for infrastructure investment policy sits with the Cabinet Secretary for Transport, Infrastructure and Connectivity, Michael Matheson.

The Infrastructure Investment Board (IIB), made up of senior civil servants, provides governance for the investment programme and its terms of reference were updated in May 2018. The Infrastructure & Investment Division (I&I) is part of the Scottish Government's Directorate for Budget & Sustainability and co-ordinates analysis and advice to Ministers on public sector infrastructure investment.

Information on project costs and spend, and anticipated costs for major capital projects in the pipeline, is published every six months in agreement with Audit Scotland and the Public Audit and Post-legislative Scrutiny (PAPLS) Committee who conduct regular scrutiny on costs and project delivery.



Different levels of governance

Audit Scotland identifies three "levels" of governance required for the management of capital investment spending:

1. whole programme level (i.e. the capital investment programme)
2. portfolio level (e.g. control of investments within the NHS or Transport Scotland)
3. individual project level

The focus of this paper is towards the upper level where “direction” is important, rather than on the climate governance of individual projects.

Why are capital budgets important for tackling climate change?

A 2017 paper for the New Climate Economy project (an international partnership of research institutes), prepared by LSE and PwC, points out:

> “The urban infrastructure that countries and cities construct today will lock in economic and climate benefits – or costs – for decades to come.”

The OECD’s 2017 paper *Investing in Climate, Investing in Growth* says:

> “As well as being a source of growth, infrastructure investment is a key determinant of future GHG emissions and resource efficiency, both directly (for example, through the type of power plants installed) and indirectly, by influencing behaviours (for example, through transport systems and urban planning). The window for making the right choices is uncomfortably narrow. The lifespans of much infrastructure and related physical investment means that future GHG emissions are going to be locked in by investment choices in the next decade, as infrastructure needs expand with the world economy.”

The same report recommends that countries:

> “Establish a pipeline of infrastructure projects that are consistent with long-term, low emission development strategies, reconciling short-term action and long-term decarbonisation goals, as a means to shift investment to climate-resilient infrastructure.”

The Paris Agreement recognises the role of finance. The Agreement has three overarching objectives. The best known of these objectives is “holding global average temperature to well below 2 °C”. Alongside this, are objectives to make finance flows consistent with low carbon development and adaption:

> “Article 2 - This Agreement… aims to strengthen the global response to the threat of climate change by… Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.”

Finally, written evidence to the Committee from WWF Scotland indicates their view that the capital budget is more likely to have a “material impact” on carbon emissions than the revenue budget.

Existing arrangements for climate governance of the capital budget

There is a statutory requirement under Section 94 of the Climate Change (Scotland) Act 2009 for Scottish ministers to report upon the emissions impact of expenditure proposals (revenue and capital). To fulfil this requirement, the Scottish Government publishes a carbon assessment alongside the other Draft Budget documents. The current assessment includes solely emissions associated with the Scottish Government's purchase of goods and services, and does not therefore include the emissions or savings associated with the outcomes arising from Government spending. The Scottish Government give the following illustration:

> "For example, while the emissions associated with manufacturing and installing insulation are included, we do not count the carbon that may be saved in future as a result of making that improvement to the housing stock."

Making a sufficiently precise and consistent assessment of the outcome of spending decisions is challenging.

The attention the Scottish Government's Infrastructure Investment Board gives to climate governance is not obvious. However, the Board's terms of reference (from May 2018) note the IIP's objective of a "lower carbon economy" and the Board proposes to measure its effectiveness by "relevant National Outcomes and… related indicators". What indicators the Board uses is not stated.

The Scottish Government's Climate Change Delivery Board (comprised mainly of key civil servants) was established in January 2012 to oversee delivery of the statutory emissions reduction targets. Its remit includes "*providing advice on investment choices across Scottish Government, using a wide evidence base and appropriate tools to do so*", but its role in climate governance of the capital budget is not apparent.

The PAPLS Committee's scrutiny of the 6-monthly major capital project updates does not generally feature the climate governance.

Strategic Environmental Assessments (SEA) are required when public bodies prepare plans, programmes or strategies if these are likely to have significant environmental effects. However, some plans are automatically exempt from this requirement, including "financial or budgetary plans and programmes". The IIP has not been subject to the SEA process.

Major capital infrastructure projects such as those described in the IIP can be expected to require an Environmental Impact Assessment (EIA) as part of their application for consent under land-use planning and other regulatory regimes. An EIA will assist with the governance of the project at an individual level, but not at a whole programme level.

Previous Committee scrutiny of capital expenditure

Last year, the ECCLR committee made recommendations to the Scottish Government in relation to the climate governance of capital expenditure:

ECCLR Committee Report on the Scottish Government 2018-19 Draft Budget (24 January 2018)

> The Committee is concerned that Scotland may not be investing sufficiently in low carbon infrastructure and is concerned about the potential difficulties in meeting the current (and potentially extended future) climate change targets. The Committee encourages the Cabinet Secretary for Environment, Climate Change and Land Reform to actively engage with colleagues in the Cabinet on the capital infrastructure programme to ensure that this does not lock Scotland in to higher than necessary carbon emissions as we go forward to 2040 and 2050. The Committee considers effective governance of the process for setting the Budget, assessing its carbon impact and ensuring the outcomes are delivered is vital. The Committee remains unclear of this process within Government and would welcome further detail on this and on the interaction between Cabinet Secretaries and portfolios in the development of the annual Budget.
>
> The Committee would also welcome further detail on how Scotland's infrastructure investment plans align with Scotland's emission reduction targets including the more ambitious goals proposed in the Climate Change Bill and delivery of Scotland's Climate Change Plan. The Committee further recommends the Scottish Government provide information on an annual basis, alongside the Budget, that enables a detailed assessment of the carbon impact of the infrastructure spend as set out in the Budget, including, for example the balance of infrastructure spending directed to low vs high carbon investments. This would enable a year on year assessment and comparison between budgets.

The Scottish Government's full response to this report is available here (7 March 2018). The response makes two commitments in particular:

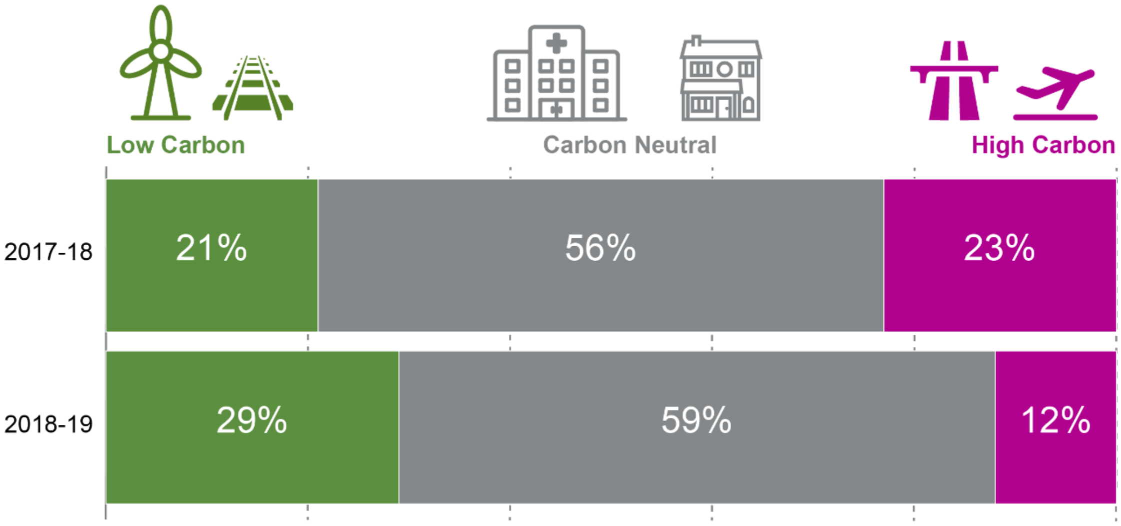
1. "When the Infrastructure Investment Plan is refreshed, it will take into account the requirements of Scotland's climate change legislation at that point in time."
2. "Officials will review each Draft Budget to set out the proportion of the overall capital budget allocated to low carbon projects and programmes, including infrastructure spend. This information will be made available to the Committee."

Scottish Government's low-to-high analysis

The information referred to in the second bullet point above ("*proportion of the overall capital budget allocated to low carbon projects and programmes*") was provided to the Finance and Constitution Committee (FCC) on request near the end of the 2018-19 budget cycle.

This was the first known time such an analysis had been carried out by the Scottish Government. The analysis categorised all planned infrastructure investment in 2017-18 and the capital spend proposed in the 2018-19 budget as either low, neutral or high carbon. This provided an in-year snapshot of the current financial year and the draft budget proposals under consideration.

Table 2: SG infrastructure spend categorised by climate impact



Source: Scottish Government letter to Finance and Constitution Committee, 19 January 2018

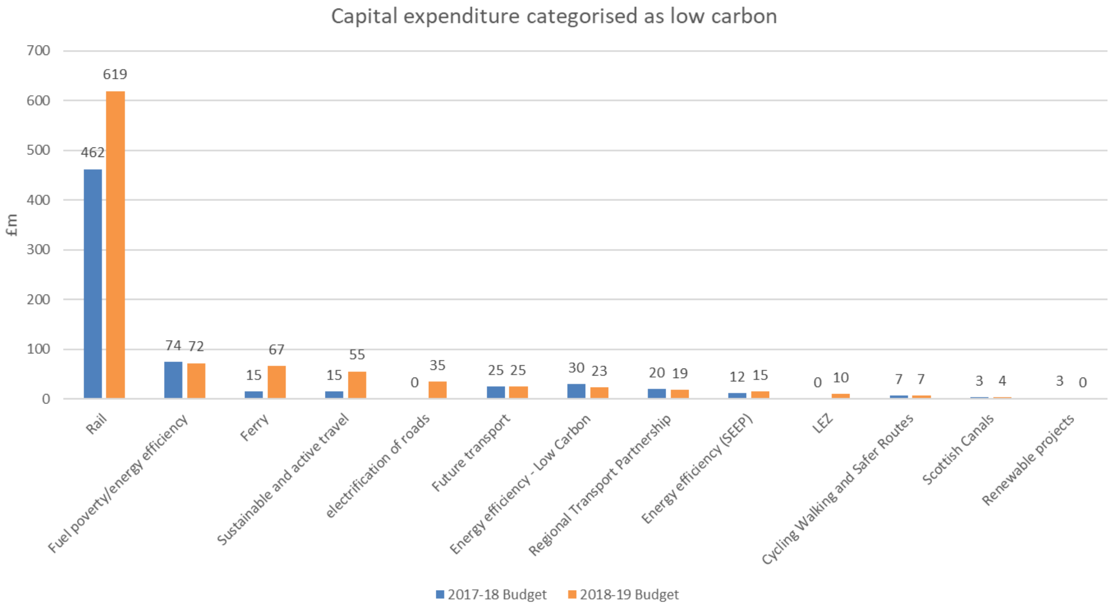
The headline figures reported in the table above were referred to by the Cabinet Secretary for Finance during Stage 1 and Stage 3 of the 2018-19 budget bill, alongside a statement relating to future years:

- Stage 1 debate: "*The proportion of the Scottish Government capital budget that is spent on low carbon is increasing from 21 per cent to 29 per cent. As part of my agreement with the Scottish Green Party, we will continue to increase, year on year, the proportion of our capital budget that is spent on low-carbon projects beyond this year's budget.*"
- Stage 3: "*The proportion of our capital budget that is spent on low-carbon projects will continue to increase in future years.*"

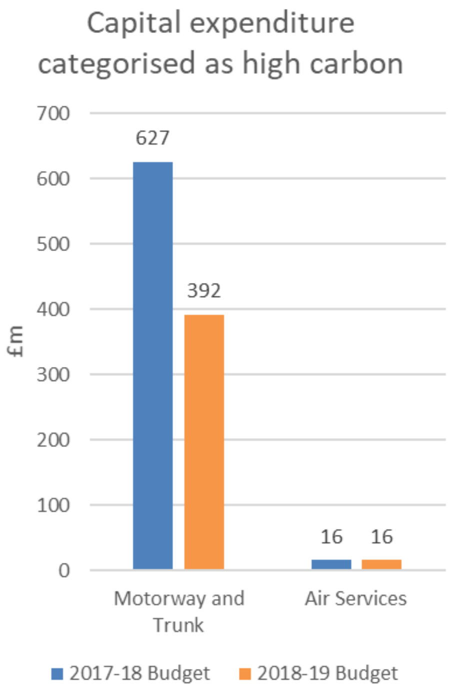
Behind the headline figures

Scottish Government officials provided SPICe with the analysis that sits behind the headline figures in Table 2. The analysis identifies 70 different budget lines (classes of expenditure) and categorises these as either high, neutral or low carbon. The General Capital Grant provided to local government is excluded from the categorisation because information on how this is spent was not available to central government. Budget lines categorised as either high or low carbon are shown in Figure 2.

Figure 2: capital expenditure categorised as either high and low carbon



Source: data supplied by Scottish Government to SPICe



In 2018-19, 12 classes of expenditure were categorised as low carbon, 55 as neutral and 2 as high carbon. Ignoring expenditure categorised as neutral, the largest percentage increases, compared with the previous year, were in the 'Ferry' and 'Sustainable and Active Travel' budget lines; while the largest percentage decreases were in 'Renewable projects' and 'Motorway and Trunk'. The largest absolute increase (again, ignoring expenditure categorised as neutral) was in 'Rail' and largest decrease was 'Motorway and Trunk'.

The total amount of capital expenditure included in the 2018-19 analysis was £3,918 million. This represents 88% of the total capital budget identified in the draft budget for that year. The financial figures used are 'in-year' spend, in other words expenditure expected to occur within the financial year, but much of this expenditure can be expected to be on infrastructure projects that take more than one year to complete.

The categorisation used by the Scottish Government is consistent with the approach of the Green Alliance for Scotland's Low Carbon Infrastructure Task Force (see Table 3).

Table 3: expenditure types, categorised by climate impact

Category	Examples
Low carbon	Transport - rail and ferry Energy - all renewables and electricity transmission and distribution Rural affairs and the environment - waste Housing - energy efficiency programmes
Neutral	Rural affairs and the environment - all non-waste Housing - all non-energy efficiency Water Digital Health Schools Culture and heritage Regeneration Justice
High carbon	Transport - roads and airports Energy - fossil fuel generation

Source: Low Carbon Infrastructure Task Force, August 2015

SPICe analysis: applying the low-to-high analysis to other financial data

The Scottish Government analysis, as described above, categorised **in-year capital spend** to provide a snapshot of the draft budget under consideration. SPICe has applied the same analysis to infrastructure projects completed since 2007 to provide an initial picture of **previous capital spend**, and to the Infrastructure Investment Plan to provide an initial picture of **future capital plans**.

The analysis categorises the likely climate impact of infrastructure projects at a very high level as broadly positive, negative or neutral. It takes no account of any detailed carbon impact assessments.

Previous capital spend

Scottish Government officials have provided SPICe with financial data for infrastructure projects which are 'operational' (i.e. completed) or 'in construction' across the period May 2007 to March 2018 where the Scottish Government has a lead role in procurement or funding. This data includes revenue-funded investment projects (such as schools), but does not include the Local Authority capital allocation or a number of significant investment areas where the Scottish Government is not the lead partner (for example housing, expansion of early learning & childcare and City Region Deals).

The total value of investment in this dataset is over £14 billion.

Applying the high-to-low categorisation analysis to projects that are now 'operational' shows that 15% of spending since May 2007 has gone to projects categorised as low carbon, 57% on projects categorised as neutral and 29% on projects categorised as high carbon.

For projects marked as ‘in construction’, 43% of spending is on projects categorised as low carbon, 35% neutral and 22% high carbon.

Future capital plans

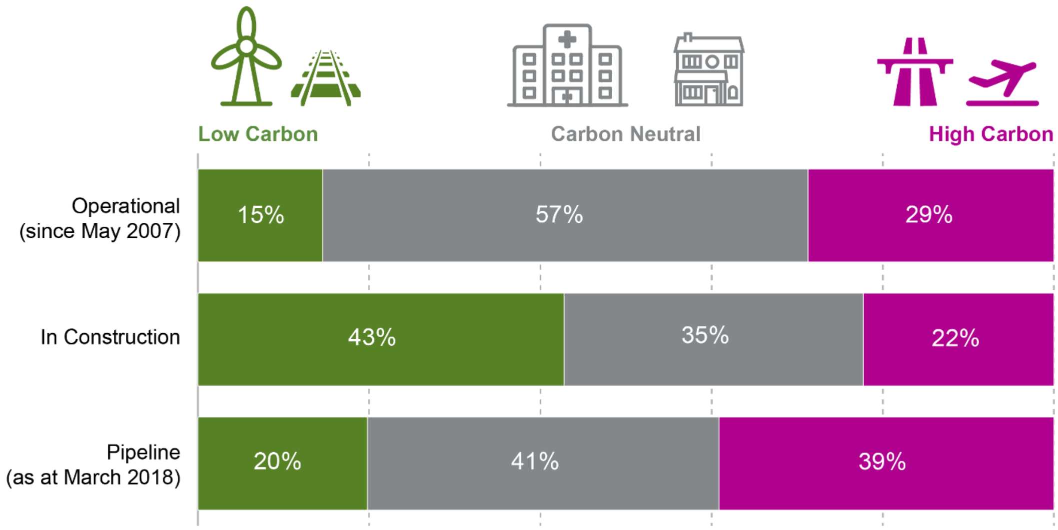
The Infrastructure Investment Plan (IIP) 2015 was published alongside the 2016-17 Draft Budget and provided a “projected project pipeline” of the large-scale infrastructure the then Scottish Government intended to take forward over the following 20 years. As described above, the Scottish Government publishes 6-monthly updates to this project pipeline.

SPICe has applied the high-to-low categorisation analysis to projects listed in the Infrastructure Investment Plan’s Project Pipeline Update (March 2018). This list represents the most up to date pipeline information on projects where the Scottish Government have a lead role in procurement or funding. One project was excluded from the analysis because its cost was not reasonably definitive.

The total value of investment included in dataset is over £7 billion and includes capital and revenue-funded investments.

20% of the value of projects with reasonably definitive costs in the Pipeline Update were categorised as low carbon, 41% neutral and 39% high.

Figure 3: Scottish Government-lead infrastructure spend and plans, by climate impact



Source: Infrastructure Investment Plan 2015 Project Pipeline Update (March 2018); SPICe analysis.

What do the figures tell us?

As capital budgets move around substantially from year to year, and global figures can be strongly influenced by one or two major phases of expenditure, it is useful to take a longer-term view, such as by looking at the pipeline of projects.

With the available data it is difficult to identify a consistent timeline. However, superficially, the above analysis would appear to suggest:

- 15% of operational (i.e. completed) public infrastructure investments since 2007 (where the Scottish Government has a lead role in procurement or funding) has been on projects broadly classified as low carbon. However, with 43% of those projects that are "in construction" being low carbon, the total proportion of low carbon projects would look set to increase.
- The proportion of spend on low carbon projects in future capital plans looks to be around 20%, meaning that (on the basis of these figures) there will be a small long-term shift towards low carbon projects, but that the overall proportion will be less than the low carbon proportion in construction today.
- The future trend for investment in high carbon projects looks set to be an increase. The proportion of projects in future capital plans categorised as high carbon looks to be 39%. This figure is based in the March 2018 Pipeline Update and does not account for announcements made in the Programme for Government as no further detailed information is available at present. The next Pipeline Update is expected in the Autumn.

Programme for Government announcements

In the First Minister's statement on the Programme for Government 2018-19, she announced plans to increase capital investment rates.

> "The pledge I am making today is to increase capital investment year on year, so that by 2025/26 it is £1.5 billion higher than the 2019/20 baseline of around £5 billion. Between now and then, that commitment will mean investment in our hospitals, schools, houses, transport, low carbon technology and digital connections will be around £7 billion higher than current spending projections."

The Programme for Government document also provided information on plans for the Scottish National Investment Bank.

> "In the coming year we will introduce the legislation that will support the establishment and capitalisation of the Bank. In addition to the planned investment in the next two years as a precursor to the Bank, our aim is for the Bank to be investing in our businesses and communities from 2020, subject to regulatory and legislative approval."

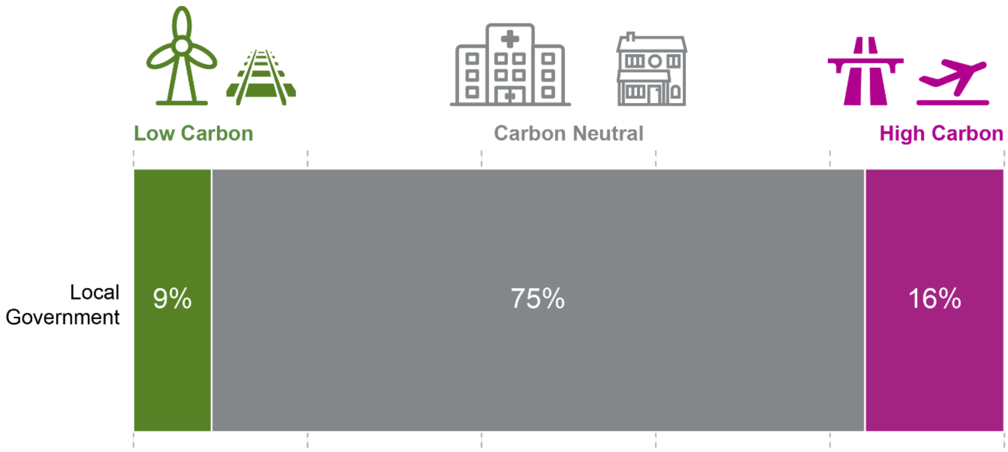
Local Authority in-year capital plans

Local Authority capital expenditure was excluded from the Scottish Government's in-year analysis because the required information was not available at the time. SPICe has now examined all Scottish Local Authority budgets and applied the high-to-low categorisation analysis to their capital plans in 2018-19.

The total value of investment included in the data set is £1.6bn.

9% of the value of projects in the capital plans were categorised as low carbon, 75% neutral and 16% high.

Figure 4: summary of local authority capital expenditure plans (2018-19), catergorised by climate impact



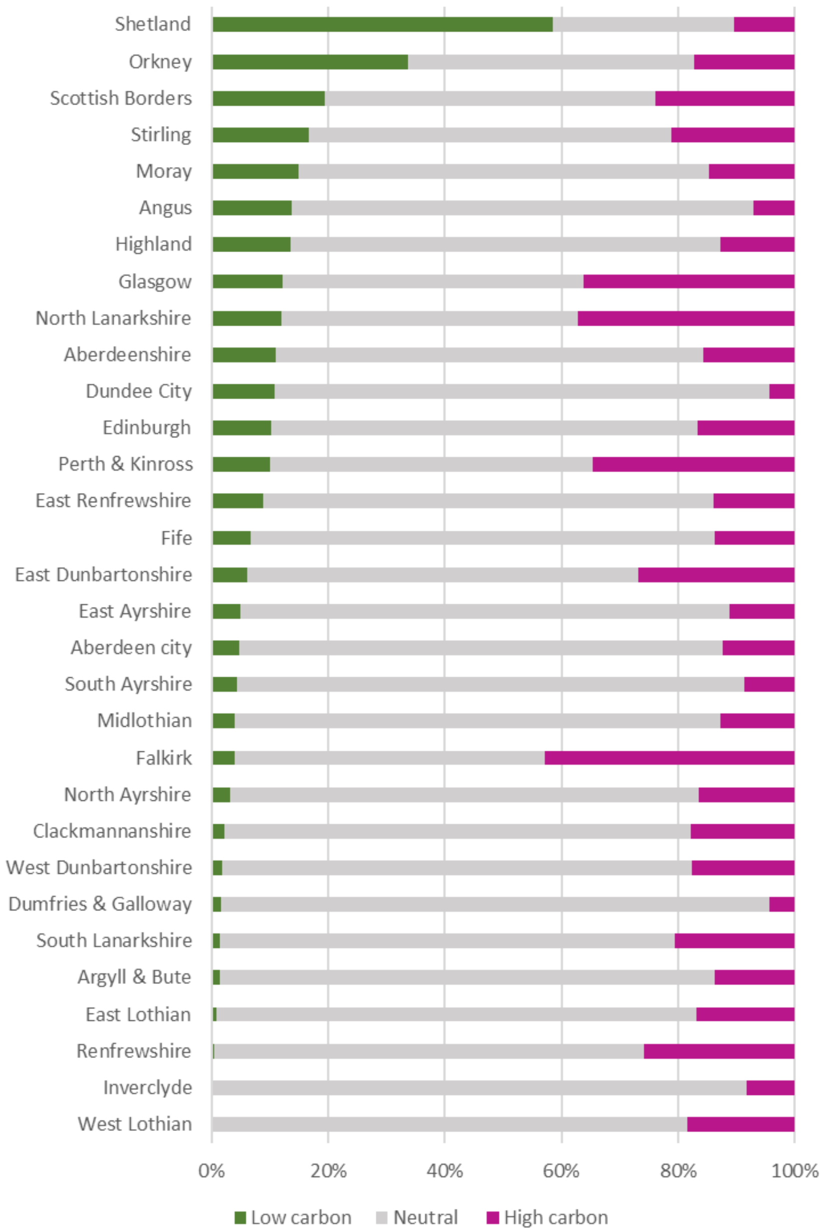
Source: SPICe analysis

Figure 5 shows the same figures broken down by Local Authority.

The Shetland and Orkney island authorities' plans include the highest proportion of investment categorised as low carbon. The vast majority of that low carbon investment is in harbour and ferry infrastructure. Scottish Borders Council is third, with significant investments in the waste and home energy efficiency categories. Stirling is the highest ranked city authority as a result of investment in LED lighting as well as energy efficiency and rail.

Falkirk, North Lanarkshire, Glasgow and Perth & Kinross have the highest proportions of investment categorised as high carbon. In all cases this is a result of proportionately high levels of investment categorised as road or airport investment.

Figure 5: Local Authority capital expenditure plans, categorised by climate impact



Source: SPICe analysis of Local Authority capital plans. Eilean Siar not included in analysis as capital plans could not be located.

Pros & cons of the approaches to measuring carbon impact

1. Carbon assessment of the budget (report under s94 of the CCA)

The main advantage to this approach is that it is based on an environmental input-output model chosen from a range of possible methodologies after detailed consideration.

The main drawback to this approach, in terms of budget scrutiny, is that it does not consider the outcome of spending proposals – e.g. will this investment be likely to lead to more low or high carbon activity.

- PROs: Based on detailed input-output model using average carbon intensities of industries. Includes capital spend (total capital has not

been reported separately from revenue in the past, however the Scottish Government's letter to the committee provides this analysis for the Five Year Financial Strategy).
- CONs: Does not consider the outcome of capital spend. Post-hoc analysis. Does not take into account depreciation of existing assets and the overall carbon impact of the capital stock (i.e. covers new spend only).

2. Categorising infrastructure spend as low, neutral or high-carbon

The main advantage of this approach is that it focuses on the likely outcome of capital spending proposals.

The main drawback is that it is based on a very basic set of spending and impact categories.

- PROs: Quick and easy to apply to different investments. Can consider the expected outcome of spending (though currently done very broadly). Methodology transparent and easy to understand.
- CONs: This is a very rough and ready categorisation. Activity or projects with potentially different climate impacts are grouped together (sometimes in budget lines with high value, e.g. housing). Post-hoc analysis.

Simon Wakefield, Iain Thom & Alex O'Conor
SPICe Research