



# CIBSE BRIEFING

## GREEN RECOVERY

As we recover from the COVID-19 pandemic there is a renewed opportunity to focus on the challenges of climate change mitigation and adaptation, delivering safe and healthy buildings that provide for occupant wellbeing and maintaining biodiversity and environmental protection. At the same time we need to build our resilience to future crises. The current pandemic highlights the need to be guided by science and engineering. Later action will cost more and may lead to irreversible damage.

In addition, a green recovery could contribute significantly to job creation and UK export opportunities, now and in the long term.

CIBSE therefore recommend the following strategy:

1. **A clear commitment by government to embed climate, environmental, health, and building safety objectives in the recovery plan.** We are pleased decarbonisation is an objective of the CLC's recovery plan, but need more specific and stronger commitments.
2. **Making the most of the current period:** the period of lower economic activity creates opportunities to prepare and facilitate the transition to a zero carbon economy by:
  - a. **Developing low-carbon skills and expertise:** skills and expertise need to significantly develop in areas such as low-carbon heat and retrofit. In the first instance, training and competence programmes could specifically target people on furlough or at risk of unemployment<sup>1</sup>.
  - b. **Thinking and planning** e.g. preparing local and regional plans which embed climate and biodiversity goals, to be put into action when economic activity resumes.
  - c. **Acting now where it is easier than usual, especially where it can pre-empt detrimental reactions post-lockdowns** e.g. improving walking and cycling routes to prevent a large-scale shift to private vehicles.
  - d. **Gathering data and lessons** on whether current behaviours and activities bring benefits and if so, whether and how lasting change could be achieved.
3. **Improving the policy and incentive framework to prioritise climate, environmental and health and wellbeing improvements as well as job creation, and turning this into action.** This should create comprehensive and consistent support as well as the removal of existing measures which, intentionally or not, act as disincentive to reduce fossil fuel use. The following should be a focus due to their demonstrated potential to benefit both the economy and the climate<sup>2</sup>:
  - a. Low-carbon **retrofit and refurbishment** of the existing building stock, particularly housing. This should include, and possibly start with, the current programme of remediation in high rise residential buildings, which should be managed to deliver safe, healthy and energy efficient buildings and significant carbon reductions.
  - b. **Nature-based solutions** to improve resilience and offer a range of environmental, health and wellbeing benefits.
  - c. Promotion of **low-carbon and clean infrastructure** through capital investment and the planning system, including the energy and transport systems.

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<sup>1</sup> For example through the proposed CLC Talent Retention Scheme

<sup>2</sup> [Hepburn et al, May 2020: Will COVID-19 fiscal recovery packages accelerate or retard progress on climate change?](#)

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The following sections offer more details and examples, tailored around the 6 principles for a resilient recovery proposed by the Committee on Climate Change (CCC)<sup>3</sup>.

### CCC PRINCIPLE 1 - USE CLIMATE INVESTMENTS TO SUPPORT ECONOMIC RECOVERY AND JOBS.

**Low-carbon retrofit** of the building stock is essential to meet our climate goals, could make a huge contribution to job creation, and bring co-benefits such as comfort and health. A programme should be developed to start now, develop the supply chain, and gather lessons for continuous improvements in delivery and performance<sup>4</sup>.

This should be supported by a comprehensive set of regulations and incentives, including:

- interventions at all opportunity points (sales, leases, external and internal works...)
- instruments including (but not necessarily limited to) Building Regulations, the planning system, and Minimum Energy Efficiency Standards. These must evolve to tackle in-use performance, beyond asset ratings and practical completion. We welcome the CLC's intent to focus on whole life performance, but this can only be fully achieved by going beyond the current instruments such as Energy Performance Certificates.
- Proposals to be published as soon as possible for revisions to Part L of the Building Regulations and its equivalents in the devolved administrations for existing buildings; these proposals should demonstrate real ambition towards net zero carbon, with increases in performance requirements, better processes to improve in-use performance, and measures to enable a transition to net zero (e.g. building passports and whole-house retrofit plans for net zero carbon).

**Making the most of the current period:** Mass low-carbon retrofit of the existing building stock will require huge development in the skills, expertise and capacity of supply chains, in order to meet objectives and not lead to unintended consequences. There is an opportunity to start this with furloughed and unemployed individuals, through a **programme of training and competence in retrofit, low-carbon heat**, and other skills for a zero-carbon economy. The reset and reinvention phases of the CLC recovery plan offer the chance to address these needs.

Deploying **nature-based solutions** will improve resilience and provide a range of environmental, health and wellbeing benefits, including biodiversity, air quality, flood risk mitigation, reduction of the urban heat island effect, and support to physical and mental health. Well-planned and managed forestry can also contribute to job creation and the development of the UK timber industry, supporting the decarbonisation of construction<sup>5</sup>.

Support to **infrastructure projects** should be conditioned to their climate and environmental impact. Clean energy and transport projects should be prioritised and include:

- **First, reducing demand**, particularly private vehicles; the planning system has a central role to play through the creation of a consistent transport and land use framework.
- **Planning for the transition towards electric vehicles and increasingly all-electric buildings:** this needs consideration of local infrastructure and of the interaction between buildings, generation and distribution infrastructure and the transport system (e.g. charging points, large-scale storage). Local and regional authorities are well placed to coordinate and plan for this, supported by requirements and guidance from government.

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<sup>3</sup> CCC, May 2020 <https://www.theccc.org.uk/2020/05/06/take-urgent-action-on-six-key-principles-for-a-resilient-recovery/>

<sup>4</sup> This could be informed by [recent recommendations from the Green Construction Board](#), May 2020

<sup>5</sup> E.g. see Wood Knowledge Wales, "Zero Carbon Homes – Actions to integrate our Welsh forest industries with modern methods of construction", 2019, for estimates of jobs associated with timber frame construction, forestry and timber processing.

### CCC PRINCIPLE 2 - LEAD A SHIFT TOWARDS POSITIVE, LONG-TERM BEHAVIOURS.

To help shift behaviours and practice, government should lead by example in the way it procures and manages buildings, including procuring for in-use carbon performance, and disclosing the performance of the buildings it occupies<sup>6</sup>. This will also contribute to achieving the cultural changes that are required in the sector in response to the Hackitt Review.

See also Principle 1 on investing in nature-based solutions and clean infrastructure.

#### **Making the most of the current period:**

**Thinking and planning:** some individuals and organisations currently have more availability than usual. This can be used to prepare and review plans in order to put climate mitigation, adaptation and biodiversity at their heart, to be ready when the economy starts again. Examples include the preparation of local regeneration plans.

The current period of lower activity, including reduced road traffic, offers opportunities to **carry out works with less disturbance than usual**. This should include the creation of improved walking and cycling routes, urban tree planting and other greening interventions, which are necessary to climate, environmental and health objectives, and will help avoid a post-lockdown “rush to cars” as populations are reluctant to use public transport, and carrying capacity is reduced due to distancing measures. There are already many examples of this happening abroad as part of strategies to also improve the quality of urban centres and their attractiveness to visitors (e.g. Milan, Paris, Athens)<sup>7</sup>; the UK should not fall behind.

#### **Data and lessons must be gathered from the lockdowns and pandemic response:**

- **Data on impacts from lockdowns**, including reductions in carbon emissions, improvements in air quality, noise, water quality etc. This does not mean that action on climate change should assume similar drops in economic activity as during the lockdowns, but there are some opportunities to test assumptions and improve models e.g. on the reduction in air and noise pollution achievable through reduced traffic.
- **Lessons on behaviour change:** there are limits to comparing the pandemic and climate emergency: whilst the current crisis is immediate but likely to be shorter lived, climate change demands urgent action to mitigate and manage its consequences over many decades, which can lead to a false sense that the issue is not urgent. The pandemic should however provide useful examples about what is possible: how much change is acceptable, how quickly, how sustained, and what public messaging is effective?
- **Lessons on how to deliver fast and effective solutions:** the pandemic offers examples of accelerated processes and public-private partnerships which have driven fast adaptation and innovation, as well as community-led action and networks. These could help inform climate and biodiversity solutions and should be actively learnt from and replicated, as the consequences of climate change could be just as serious as the pandemic and should stimulate equally urgent and accelerated responses.

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<sup>6</sup> See [joint industry statement on measured operational building performance](#)

<sup>7</sup> The Guardian, “Cleaner and greener”: Covid-19 prompts world’s cities to free public space of cars”, May 2020

### CCC PRINCIPLE 3 - TACKLE THE WIDER 'RESILIENCE DEFICIT' ON CLIMATE CHANGE.

Many measures which provide critical support in extreme situations (e.g. floods) also provide benefits to all, at all times - see recommendations against Principle 1 on investing in nature-based solutions, with their multiple benefits to the environment and health and wellbeing.

We recommend that climate adaptation and resilience, including overheating and flood risk, should be considered in the Future Homes Standard<sup>8</sup> and its non-domestic equivalent. A key resilience aspect which needs to be addressed in buildings is the risk of overheating. CIBSE have already made a number of recommendations for how this should be addressed, including through building regulations and the planning system<sup>9</sup>.

### CCC PRINCIPLE 4 - EMBED FAIRNESS AS A CORE PRINCIPLE.

Health inequalities have been highlighted by the pandemic but have long been well-known. These health inequalities are impacted by housing and environmental factors<sup>10</sup>.

The planning and building regulations system should ensure that all have access to housing and to an environment that is supportive of their physical and mental health and wellbeing, while also providing environmental benefits, with measures including:

- Good access to amenities through walking, cycling and public transport links
- Adequate daylight provision, with attention to lower floors which often have less daylight access while also being occupied by elderly or vulnerable populations
- Protection against overheating risk
- Protection against fuel poverty, tackling fuel costs and home efficiency. This should include a national retrofit programme (see Principle 1). In new buildings, proposals for Part L 2020 and the Future Homes Standard must be reviewed, as they would allow new dwellings with direct electric heating and worse fabric performance than under current Part L, creating a risk of fuel poverty and contradicting energy and carbon objectives<sup>8</sup>.
- Access to good quality and well-maintained outdoor space and green space.

The long-term impacts of development should be taken into account in planning appraisals (e.g. through health impact assessments or other mechanism), to limit poor development and prevent it from burdening future generations by increasing healthcare costs.

### CCC PRINCIPLE 5 – ENSURE THE RECOVERY DOES NOT LOCK-IN GREENHOUSE GAS EMISSIONS OR INCREASED RISK.

Transport and construction have been slow to decarbonise; any government support to these sectors must be contingent on commitments to decarbonisation, in parallel with changes to policy, regulations and public procurement.

The current policy, regulations and incentive framework contains **barriers, counter-incentives and skewing factors** which do not encourage lower-carbon decisions and do not prevent locking-in greenhouse gas emissions in building sector. This must be addressed to be consistent with climate, environmental and health objectives, for example:

- The current **VAT rate applied to retrofit works** discourages energy and carbon improvement works and does not treat new build and retrofit equitably. This should be reviewed for works which deliver energy and carbon savings. In parallel, a programme to

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<sup>8</sup> [CIBSE response to consultation on Part L, F and Future Homes Standard, February 2020](#)

<sup>9</sup> [CIBSE position statement on overheating, March 2020](#)

<sup>10</sup> [Fair Society Healthy Lives \(The Marmot Review\), 2010](#)

- increase retrofit (see Principle 1) would lead to job creation, increasing revenues to HMRC (e.g. income tax, increased spending) and making up for lost VAT revenues.
- Review the proposed approach to **combustible materials in buildings** in England, which would restrict the application of timber in construction. Regulations should be based on performance requirements; for example, in the case of structural timber, there are evidence-based and risk-based methods available (e.g. BS 8414) to allow its safe use while supporting the decarbonisation of construction.
  - **Review energy pricing to gradually align it with carbon impact**, in order to incentivise the right decisions. Currently, the significantly lower cost of gas compared to electricity can skew investment towards higher-carbon solutions. This review must however avoid detrimental effects on fuel poverty – see next point, and Principle 4.
  - **Review the approach to winter fuel payments**: while these intend to reduce fuel poverty, they do not address the fact that people remain in uncomfortable and inefficient homes. Options should be reviewed to shift finances towards improving these homes in order to reduce energy use, bills and carbon emissions while improving comfort. This could be staged, to make sure any change does not affect those at greatest need.
  - **Include carbon performance and air quality requirements as condition of support to heat networks**: this should apply both to new and existing networks, as detailed in the CIBSE response to the recent heat market consultation<sup>11</sup>. MHCLG should review the proposed factors to be used in Part L 2020 assessments of new dwellings linked to heat networks (SAP 10), as these factors would allow higher carbon emissions and not represent a like-for-like comparison of carbon performance with other heating systems.
  - Review **Energy Performance Certificate ratings**: these are currently based on costs rather than energy or carbon. Combined with the discrepancy between the relative carbon and cost impacts of gas and electricity, this does not drive the right decisions.
  - **Monitor and modify the financial support to diesel generation through STOR** (Short Term Operating Reserve): In recent years there were concerns that diesel generators were being installed to benefit from payments through STOR, with high impacts on air pollution and carbon emissions. This has been limited through the EU Medium Combustion Plant Directive, but diesel generators still represent a non-negligible part of STOR capacity<sup>12</sup>. These incentives for diesel generation must be reduced.
  - **Review Permitted Development Rights (PDRs)**: PDRs allow the creation of poor-quality converted dwellings without the scrutiny and carbon and sustainability requirements from the planning system; in addition, proposals for extending PDRs to facilitate the demolition of empty commercial buildings go against the principle of limiting embodied carbon expenditure. Retrofit and adaptation options must be explored first.
  - **Review how energy efficiency is treated in business rates**: currently, energy efficiency works can increase property value and therefore business rates, acting as disincentive. Instead, business rates should benefit the most efficient properties<sup>13</sup>.

### CCC PRINCIPLE 6 – STRENGTHEN INCENTIVES TO REDUCE EMISSIONS WHEN CONSIDERING TAX CHANGES.

We recommend a general review to ensure the system of taxes, financial penalties and incentives is consistent with climate, environmental and health objectives. Our above recommendations under Principle 5 include examples of where this is currently not the case.

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Rev 2 – 26<sup>th</sup> June 2020 – Added point on business rates, page 5  
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<sup>11</sup> [CIBSE response to heat market consultation, June 2020](#)

<sup>12</sup> [National Grid ESO, Demand side flexibility, annual report, 2019](#)

<sup>13</sup> [This has been highlighted, among others, by the CBI and House of Commons Treasury Committee](#)