

MANCHESTER CLIMATE CHANGE AGENCY

A ROADMAP TO NET ZERO CARBON NEW BUILDINGS IN MANCHESTER



APPENDIX

FINANCIAL CAPITAL

There are three focus areas that should be considered when reviewing Financial Capital in relation to delivering MCCA's Climate Change Framework. These are:

- Cost & Viability
- Valuation
- Financing

It is worth noting that there are further considerations that might not be reflected in this document. It is therefore important that MCCA continues additional consultation with stakeholders to ensure the delivery of its Climate Change Framework does not have unintended consequences.

COST & VIABILITY

With thanks to F&G, Muse, WSP & Turley for leading

The below comments highlight some of the areas that MCCA needs to consider when developing its Climate Change Framework in relation to new developments. Each consideration is then followed by a proposed action.

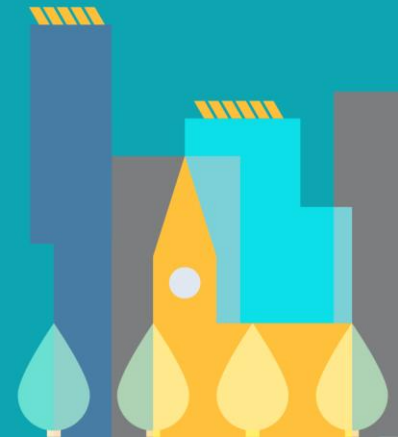
Consideration

The viability of developments will be impacted by the building cost of achieving the Manchester Standard:

- The EUI targets are currently estimated to add 4-6% onto building costs for Commercial office developments and 8-10% for residential developments.
- The embodied carbon targets are currently estimated to add 20-30% onto building costs across offices and residential developments.

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Action

MCC to work with stakeholders on further detailed modelling to be fully aware of the impact of the Standard on development viability and other potential project contributions, S106, affordable housing, etc.

The Task Group believes offsetting or a Carbon Tax are not required to meet net zero in operation, due to the stringent energy performance and low carbon energy supply requirements. For Net Zero in construction, the Task Group believes that using a Carbon Tax or offset fund (set at a rate of c.£95/tCO₂ for example), to reduce or eliminate the carbon balance remaining after meeting the embodied carbon target, is likely to be prohibitively expensive if this is introduced as early as 2023.

MCC and stakeholders will need to clarify the application of the embodied carbon targets to external infrastructure such as drainage, access roads, and ground remediation, which can be a significant uplift in embodied carbon.

MCC to explore how any possible 'Carbon Tax' will be administered and introduced in future years and what type of offsets (if allowed) are appropriate.

Consideration

The design of buildings in cities will change to meet the changing demands of building performance.

Action

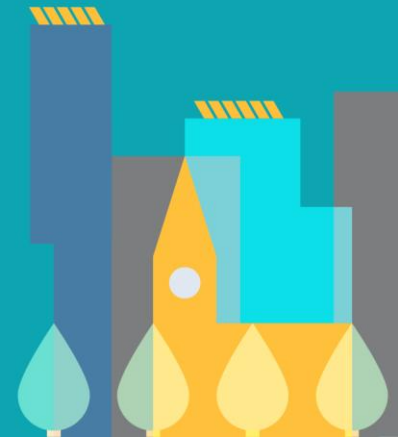
MCC to review approach to design consideration through the planning process. The reduction/balance in glazed facades will impact the recent design aspirations of the city and suburbs. If new standards are to be met, MCC to review and acknowledge that building design will change from current design standards.

Consideration

Carbon Tax expenditure should follow the principles of industry recognised accredited carbon offset schemes. Many investors have emerging UK and global offset strategies in line with certified offsetting programmes (e.g. Gold Standard Carbon Offsetting, etc).

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Action

MCC to review future Carbon Tax/offsetting strategy with the funds that would be generated by the newly implemented Carbon Tax and define what offsetting schemes would be acceptable in order to meet any requirements on net zero carbon balance - and implement such an approach in due course.

VALUATION CONSIDERATIONS

With thanks to JLL for leading

The group agreed that it was important to include considerations regarding the impact the Manchester Standard could have on the value of new developments. Additional work needs to be undertaken to understand the impact on valuations in relation to residential developments and social housing. This is something that members of the task group will continue to explore and feedback where appropriate.

This section focuses on a hypothetical prime office development opportunity in Manchester city centre and aims to set out the primary considerations to the valuation inputs which influence value. The hypothetical valuation case study indicates how enhanced returns (measured by Profit level) can be achieved for best-in-class sustainable buildings in the short to medium term.

Income

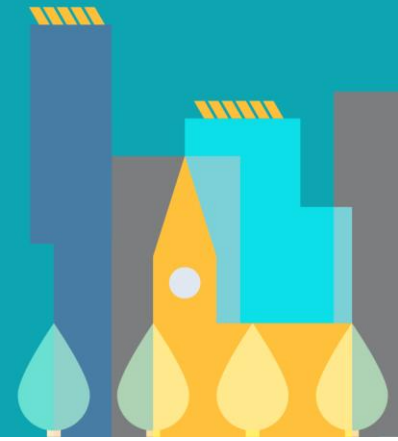
In our view rental income will be influenced by limited supply of appropriately specified buildings and increased demand from occupiers with Environmental Social Governance requirements. We have witnessed this in new buildings where the most sustainable specifications are resulting in premium rents.

Voids

Research has indicated that well specified spaced fitted out to meet both sustainable and wellness criteria leases up in a shorter time than standard offices. This can be reflected within the appraisal by a shorter average leasing up period and arguably shorter rent-free period if there is greater demand for the space.

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Exit Yield

The exit yield reflects numerous factors including the quality of the building, average weighted unexpired term, and assessment of rental growth prospects. If a building does not track the leading market standards, then the exit yield will be higher resulting in a lower value at the end of the hold period.

Furthermore, given the speed at which legislation and ESG requirements are advancing, the risk is that within the 10 years, further capital expenditure will be required if Net Zero compliant decisions are not made now.

Cost of Construction

To achieve Net Carbon Zero specification, costs are currently higher than for construction of a standard office building.

The question is whether to commit to additional costs at the start of development process to take advantage of the short-term dearth of supply or lower upfront costs with the anticipation of further refurbishment cost within the next 10 years to stay in line with legislation and market demand.

Finance

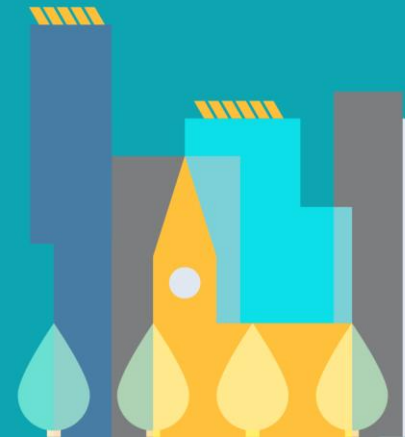
An increasing number of green loans are being made available, which could result in a lower cost of debt and enhancing returns.

Scenario Outline

Having highlighted the major inputs, we set out below an example to demonstrate how this analysis can be used.

For illustrative purposes we have considered two scenarios for a site recently purchased to develop

- 160,000 sq. ft. (Standard Office Building)
- 160,000 sq. ft. (Net Carbon Zero Office Building)



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	Standard Office Building	Net Carbon Zero Office Building
Rent (sq ft)	£37.50	£38.50
Yield	5.50%	5.25%
Construction Cost (sq ft)	£195	£210
Average Letting Period	9 months	6 months
Profit on Cost	23%	28%

This exercise suggests that Net Zero compliance will offer higher returns.

As the investment market starts to factor in the potential returns available, opportunities for sustainable redevelopments as well as existing best-in-stock will likely see premium pricing. As such stock becomes market standard and legislation tightens, we expect a discount for non-compliance will emerge.

FINANCE CONSIDERATIONS

With thanks to NatWest

Consideration

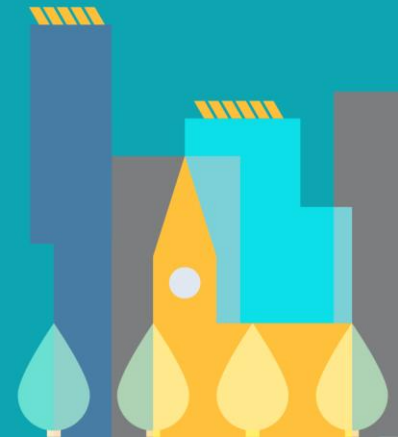
Organisations often struggle to articulate what impact (positive & negative) reaching Net Zero will have on business plans. Organisations also struggle with the ability to measure and report on ESG outputs, that have a direct or indirect credit enhancement. It becomes more challenging to model assumptions longer term as plans focus on a series of 5-year ESG & carbon budgets.

Action

The Zero Carbon Task Group should facilitate a white paper that clearly outlines the positive and negative impact reaching Net Zero could have on business plans, or relevant material should be sourced and shared with stakeholders. Positive/negative factors should refer to anticipated regulatory landscape (including likely carbon tax/penalties) and shift in consumer/customer/tenant preferences.

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MCC should identify potential methods of measuring & reporting direct and indirect credit enhancements. If methods cannot be easily utilised, then MCC should support investment in developing such methodologies. Or guidance around the factors that are used to assess credit quality, highlighting which of these could/would be impacted by a net zero business plan. In terms of issues with longer term modelling, MCC should seek to propose a series of modelling base case assumptions as a guide.

MCC should make net-zero targets and plans mandatory through regulation and policy, whilst ensuring this does not have unintended consequences. It is worth considering what policy levers can be used to incentivise/reward these too.

Clear case studies from both domestic and international projects (and London v regional) should be showcased for developers to aspire to – with clear benefits (financial & non-financial) highlighted on achieving net zero goals.

Consideration

Traditional business plans can appear unviable in the short term based on traditional financial covenant controls, which in turn can restrict organisations' ability to raise capital, restricting their ability to deliver Net Zero.

Action

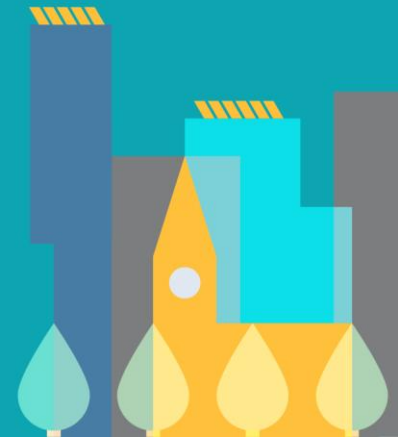
MCC should stress test business plans to identify where traditional financial covenants cannot be achieved. MCCA should work with the financial sector to propose alternative covenants or funding solutions, potentially focussing on medium term benefits/credit enhancements as identified in the problem statement above.

Looking at the whole project life cycle -- what sort of capital is needed at what time – this might help tackle some of the covenant issues i.e., bank lending taken out by patient capital/funds.

Consider leading the sector in showcasing new technologies which help drive net zero agenda in Real Estate and acting as a test bed area to support – potentially with financial assistance. E.g., the deployment of graphene in construction.

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MCC should demonstrate practical application of Net Zero and all other ESG objectives in their control (e.g., places maintained and built by the Local Authority, investment into government buildings and infrastructure (updates & new)).

Consideration

To deliver Net Zero we need to make significant changes to our economy. We need to consider MMC (Modern Methods of Construction) and new technology – which requires developers, investors, funders, and consumers to become confident in new methods of construction.

In addition to these new methods & technologies, we need to stimulate significant behaviour change; adjusting our lifestyles and making changes to how governments and organisations operate. Education around the benefits of these changes is essential.

Action

MCC should create a profile of emerging and successful MMC and new technology, to provide confidence for developers, funders, and consumers. MCC should work with the financial sector to promote these benefits of these methods.

MCC should organise a consistent and far-reaching campaign specifically focussed on short-, medium- and long-term behaviour change.

Education, case studies, promoting/incentivising the use of using MMC, independent assessments by credible industry bodies of buildings that have used MMC to increase confidence, benchmarking/oversight/accreditation.

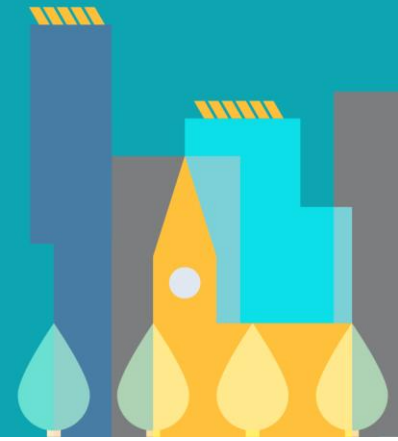
Early engagement with bank risk functions to have a proactive approach to the risks.

Consideration

Credible supply chains and labour forces need to be identified, established, supported, and recognised. As well as helping to maintain a strong workforce, increasing national income, improving health and wellbeing, this will also generate confidence in relation to business plan / cash flow assumptions.

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Action

MCCA should identify existing supply chains and labour forces that can support the delivery of Net Zero. In the event these do not exist then these need to be created. MCCA should also identify future shortfalls in supply chains and labour to prevent delays in future years (as we are experiencing now).

MCCA should have a specific Net Zero supply chain support, job/skills creation programme. By becoming an international showcase location this could be achieved.

Consideration

Management teams often lack skills and experience in this subject matter; preventing organisations delivering Net Zero and taking advantage of Sustainability Linked Funding solutions.

Action

MCCA should design a policy to promote Net Zero management positions across organisations. Should organisations report on the percentage of their management that has climate/social related skill sets? Similar to D&I KPIs?

MCCA should deliver training to decision makers explaining the benefits of Sustainability Linked Funding solutions.

NatWest can support this by producing a go to hub of Sustainability Linked Funding solutions.

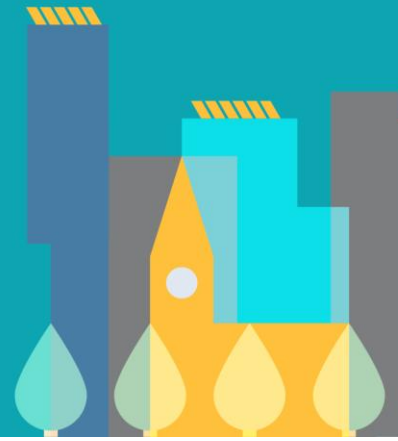
Roundtables for senior FDs/Execs on the options available with workshops for finance leads at businesses across the region. Demystifying sustainable finance and understanding the options.

MCCA could work with local schools & universities to develop a Net Zero related learning programme - targeted at various levels.

Establishing individual and corporate training / learning programmes (via Chamber of commerce) to provide support services across the ESG agenda – again akin to International Trade support.

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Consideration

There is a lack of clarity regarding government support (grants) which holds back decision making – pending confirmation of financial commitments from local and national government to support the transition to a Net Zero economy.

Action

MCCA need to identify what public support is available and make this accessible and attractive to all stakeholders (regardless of size / location etc).

In the event public support is not currently available then MCCA should build a business case to central gov for such support.

If it is expected that public support will be limited, then MCCA should not wait any longer. And consider alternative solutions to cross subsidising Initial Investment in delivering Net Zero.

Grant to be high impact based rather than spread thinly to ensure maximised impact. i.e., deploy across fewer projects to ensure case study delivery rather than many projects which may still fail to materialise.

Consideration

There are several ways organisations can access Sustainability Linked Funding to deliver Net Zero. ESG frameworks can result in additional capital becoming available from new and existing funders and can often result in lower financing costs (short / medium term).

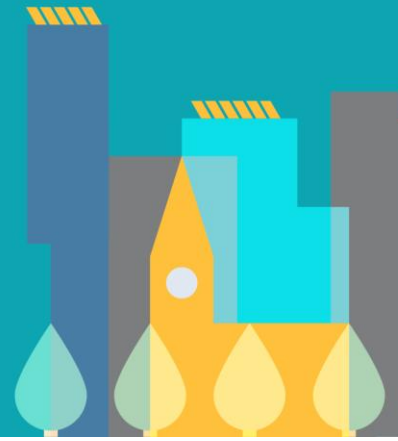
Action

MCCA should consider sector ESG frameworks or adopt those already in use e.g., the Social Housing Sustainability Reporting Standard.

If a standardised approach reporting does not exist MCCA could sponsor the development of a reporting method, to accelerate this process and accelerate the benefits of lower funding costs being obtained.

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Opportunity to share published/frameworks across sectors and geographies. e.g., NWG own Green, Social and Sustainable bond framework, or those that we have helped customers develop across Housing Associations and Higher Education.

Consideration

Like most organisations, banks and investors are also developing in house skills and expertise in delivering Net Zero. This creates an opportunity for cross sector collaboration to develop new funding solutions, supply chains & labour forces, that result in genuine positive impact.

Action

MCCA should continue to promote cross sector collaboration, perhaps through a Net Zero hub or summit.

Promote best practice – seek input from those banks/investors that are ahead of the pack, look at initiatives employed globally.

Consideration

By delivering Net Zero organisations and governments will mitigate the inevitable risk of climate change. This will preserve the value of assets and returns for stakeholders. It is essential that environmental & social value is captured in future calculations – alongside financial metrics. Assets and organisations that deliver Net Zero should theoretically benefit from a valuation uplift vs. counterparts that are non-compliant.

Action

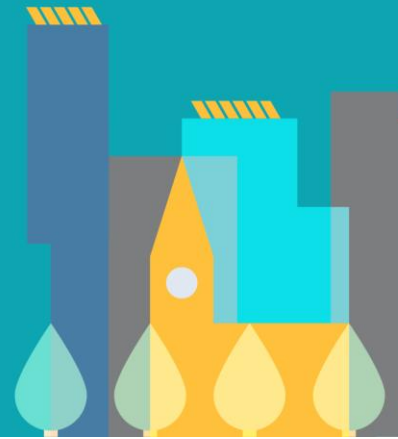
MCCA should recognise that early investment is required to achieve Net Zero - but will generate value & mitigate against future costs in the future.

MCCA should articulate what the risks of climate change / not achieving Net Zero are to its stakeholders to focus attention. But also explaining the benefits of acting sooner rather than later - to ensure that any value gain (financial, environmental, and social) is included in business plans.

This could be shown through cases studies giving clear financial and non-financial impacts or “not acting” – e.g., potential for Brown discount.

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MCCA to collaborate with the organisations responsible for assessing/reporting value to start discussing how net zero should/could be included.

There is something here about nudging/helping the businesses that have not started on this journey to at least consider the risk of stranded assets.

Consideration

It is expected that COP26 will result in an international framework for financing net-zero. Whilst organisations should not delay addressing Net Zero, key events might result in further clarity around funding solutions.

Action

MCCA should develop a roadmap in relation to key events / policies / regulatory changes etc. to ensure MCCA are aware of what the future could look like.

Start thinking about the long-term capital needed to fund the region's climate transition. Start calculating the overall cost (like the GLA have done on housing) to then start identifying what capital is available and what are the gaps.

COMMUNICATION, COLLABORATION AND CULTURE

Proposal

Part 1: Manchester Metric that benchmarks and measures environmental performance consistently

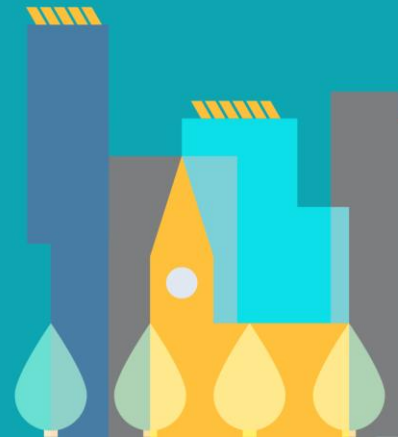
Part 2: Mapping tool to showcase Manchester's buildings

A platform that is the sole source for all information related to designing, building, and living in Manchester. That sets out the purpose, opportunities and risks associated with purchase or renting choices and provides a Manchester Development Community suite of benchmarked environmental standards, the home of the Manchester Metric.

The information is presented in an interactive and intuitive fashion, speaking to audiences of different knowledge and interest levels. The platform can be used to originate, coordinate, and amplify events or campaigns that broadcast the sustainable development and lifestyle agenda in the city.

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- Creating a standard for Manchester by setting a 'benchmark' that illustrates the positive actions and activities
- Encouraging those not already improving, to come up to standard or risk brand or otherwise damage
- A localised approach that showcases the good
- Cross-sector skills development and collaboration (digital, low carbon, development)
- Help Manchester stand out as a place that takes NZC seriously and wants to support those doing good to showcase this
- A chance to involve a greater number of developers, owners, occupiers etc. in the NZ space
- Use of existing tools and capabilities (MappingGM)
- Improve the building performance data available

Inspiration: [Honest Buildings, New York](#)

- Users could use the programme to map the performance of buildings in the city
- 3D city view where you could hover over buildings and interrogate their performance
- Interact as residents or tenants and give your own views
- Led to the creation of a project management platform (Procore)

These principles could be applied right here across Manchester using the MappingGM platform as our base level of mapping data and asking those within the Manchester Climate Change Partnership initially to include their buildings; followed by a communications campaign to increase the number of those a) mapping their building b) improving their building to reach the Manchester Standard rating and its specific criteria.