

# **FUNDING DECARBONISATION: MANAGING RISKS AND OVERCOMING OBSTACLES**

## **DISCUSSION PAPER for the CLCF/CCCEP Workshop: How Can Cities and Regions Finance their Transition to a Low Carbon Economy?**

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### **Introduction**

Recent research on the economics of low carbon cities<sup>1</sup> has shown that cost-effective and cost-neutral investments in energy demand reduction measures in the domestic, commercial, industrial and transport sectors could deliver a 40% reduction in greenhouse gas emissions from cities by 2020. Moreover, these investments could provide a whole series of economic and social benefits such as local economic development, enhanced competitiveness, new employment opportunities, and reductions in fuel poverty.

Despite these compelling arguments, these investments have not yet been made at the scale required to deliver these benefits. One of the key reasons relates to the level of capital investment required; for example, a city such as Leeds would require investments in the billions of pounds. At this scale, local authorities – the primary subject of this workshop<sup>2</sup> – would need to overcome a series of major obstacles and manage a whole series of risks, financial and non-financial. The specific obstacles to be addressed and the risks to be managed are clearly contingent on: (a) the type and structure of the financing mechanisms that are under consideration, (b) the specific role that public and private bodies, including central government, should or could play in the delivery of these goals<sup>3</sup>, and (c) the specific actions (e.g. generating a pipeline of investable projects, convening key actors, de-risking certain investments, providing finance) that local authorities would need to take to facilitate investment on this scale to be made.

This paper sets out the general process that a local authority would go through to enable low carbon investments at the scale required to be made, and identifies the key obstacles that would need to be overcome and the key risks that would need to be managed.

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<sup>1</sup> Gouldson, A. et al (2012), *The Economics of Low Carbon Cities: Methods and Outcomes of a Mini-Stern Review for the Leeds City Region* (Centre for Low Carbon Futures, Leeds). Available at: [www.lowcarbonfutures.org](http://www.lowcarbonfutures.org)

<sup>2</sup> While this workshop focuses primarily on local authorities, it is important to recognise that other actors (e.g. central government, public and private financiers, the private sector) have equally important contributions to make.

<sup>3</sup> In broad terms, local authorities can seek to finance low carbon cities directly, through some sort of partnership arrangement with the private sector, or by relying on the private sector to provide the finance required. See, for example, Energy Saving Trust and Anthony Collins Solicitors (2011), *Local Authority Large Scale Retrofit: A Review of Finance Models* (Energy Saving Trust, London). Available at: <http://www.energysavingtrust.org.uk/england/Publications2/Local-authorities-and-housing-associations/Funding-and-finance/Local-authority-large-scale-retrofit-A-review-of-finance-models>. Central government's role could include underwriting key early stages (e.g. feasibility studies) or providing capital or other financial support (e.g. through the Green Investment Bank, through the issue of green bonds).

## Strategy/Approach

Any large scale programme seeking to invest in a high volume (hundreds of thousands of households and thousands of small businesses) and with large upfront capital costs (which are likely to range from £100m to £10bn) must progress through several key generic stages.

Stage	Description
Concept	This stage should assess whether there is a <i>prima facie</i> business case for a city to adopt a low carbon strategy. It should also provide a broad assessment of the costs and benefits and identify the most cost-effective emission reduction opportunities.
Feasibility	<p>Building on the concept stage, the more attractive options would require more detailed cost-benefit assessments to be conducted and business plans which clarify possible delivery routes to be developed. The feasibility stage is also likely to involve:</p> <ul style="list-style-type: none"> <li>• Securing outline agreements (e.g. on financing, on delivery, on risk-sharing) from key investors and key players such as local authorities, government departments, utilities, major retailers and other private sector actors).</li> <li>• Obtaining necessary legal clarification covering issues such as EU procurement rules, state aid and special purpose financial vehicles.</li> </ul> <p>While the costs of conducting the concept stage are likely to be relatively modest, the feasibility stage is likely to involve significant outlays, possibly of the order of £5-10 million for an individual metropolitan council, depending on the complexity of the legal, procurement and contractual advice and other support required.</p>
Pilot	<p>This would be a relatively small scale start up to demonstrate the economic and practical viability of the approaches proposed, and to address any practical difficulties or issues. The pilot may also help ensure public acceptance, understanding and interest, and provide initial answers to questions such as the greenhouse gas emission reductions likely to be delivered.</p> <p>Clearly, the costs will depend on the exact scope and purpose of the pilot but it is not inconceivable that up to £20m would be required for one pilot area covering the full range of possible measures or up to £5m for smaller scale trials.</p>
Implementation	<p>The manner in which implementation is progressed would depend on factors such as the availability of capital, the sequencing of investments, the human and other resources required for implementation. Irrespective of how implementation is structured, local authorities will need to consider issues such as:</p> <ul style="list-style-type: none"> <li>• How to ensure that there is a robust flow of projects at the rate required.</li> <li>• How to structure the financing and the financial instruments that would be used.</li> <li>• How to ensure that the technical and other skills required are available.</li> <li>• How to ensure that the financial and other risks are properly managed.</li> </ul>

The process above is not intended to imply that implementation is a once-through process from concept to implementation. In fact, it is more likely that implementation will be an iterative process, involving a progressive roll out as obstacles are overcome, as confidence is gained and as skills and capacities (financial and technical, both within the local authority and in the other public and private sector actors involved) are developed.

### We would welcome your views on the following questions:

- Have we correctly identified the major stages in the process?
- Have we identified the major issues that need to be addressed?

## Obstacles

While the strategy/approach outlined above is reasonably clear, the reality is that local authorities must address a series of obstacles if they are to make achieving a low carbon city or region a reality. The most significant of these are set out in the table below.

Obstacle	Comments
Legal	Local authorities, as public bodies, face a whole series of constraints on their actions and behaviour. Whilst new measures such as the localism agenda may free them to explore new possibilities, they must comply with other obligations, for example relating to state-aid or to competitive tendering. The requirement to clarify which legal freedoms or obligations are in force can be enough to stop some local authorities looking into different possibilities for funding.
Financial	<p>Public and private bodies face a series of significant financial constraints. Many are financially stretched (or have limited financial flexibility) and this is making them less willing to incur capital or other costs, even if there are potentially significant long-term financial benefits. These constraints may be compounded by insufficient levels of government underwriting or pump priming support, or unrealistic private sector expectations on the investment returns that they should expect.</p> <p>Another important obstacle is that many of the benefits of low carbon investments accrue to parties other than the local authority. For example, reductions in unemployment will create revenues for central government not for local government, and reductions in fuel poverty will reduce health costs for the health authority. That is, while there may be a compelling societal case for investment, the local authority's cost-benefit calculus may not capture these wider societal benefits.</p>
Views and perceptions	<p>While there is a compelling economic, social and environmental case for low carbon investments, the views held by local authorities may create obstacles. These include:</p> <ul style="list-style-type: none"> <li>• The perception that climate change is not part of the local authority's core business, or that climate change is a lower priority than other areas of activity.</li> <li>• An unwillingness to take on any financial risk, let alone financial risks at the scale implied by the low carbon agenda</li> <li>• Scepticism about central government's commitment to action on the low carbon agenda. The fact that there have been so many policy changes and policy reviews over the last decade is often used to argue that the long-term support to make low carbon investments economically viable may not be available from government.</li> <li>• Reducing emissions is not high on most people's or companies' agendas; while most see the benefits of reducing energy use, they are often unwilling to take action because of factors such as the upfront capital costs, scepticism about the financial benefits, and the perceived lack of robust and reliable information.</li> </ul>
Capacity and skills	There is a major question about whether the construction and related trades industry has the capacity to deliver one city-scale low carbon programme, let alone the multiple programmes required if we are to achieve the goals of a low carbon economy.

**We would welcome your views on the following questions:**

- **Have we correctly identified the major obstacles?**
- **How significant are these obstacles? Are some more important than others?**
- **How (and by whom) can these obstacles be addressed?**

## Risk Assessment and Mitigation

While risks will be specific to the local authority involved and to the needs and interests of its partners, the major risks that need to be assessed and managed are set out in the table below.

Risk	Comments
Political	Political leaders will have to take some political risks to pursue major scale investments in low carbon options. They may be accused of wasting money or of benefiting particular groups over others. They may – even if all goes well – be criticised for working with the private sector, or even for crowding out the private sector. Some of these risks are inevitable for any large-scale investment but they may be exacerbated for investments that are seen as (or presented in the media as) outside local authorities’ core responsibilities.
Policy	Many low carbon projects depend on public policy (e.g. emission reduction targets, carbon prices, carbon taxes, subsidies) to make them viable. While these help to support investment in low carbon options at the city scale, the possibility that they could be withdrawn creates investment risk.
Market	Markets can have a very significant impact on the economics of low carbon investments. Of particular concern in this regard are changing interest rates and energy prices. For example, while most predictions suggest that energy prices will continue to increase, if oil prices fall, or if shale gas production leads to rapid falls in gas prices, the economics of investments in energy efficiency will change.
Legal and contractual	Local authorities are exposed to a variety of legal risks. The fear of being sued can be enough to stop some local authorities looking into the different possibilities for funding or may mean that certain types of funding approach (e.g. those involving long-term partnerships with the private sector) are simply not considered.
Transaction and start-up	The costs of, for example, contract development or due diligence studies can be significant, and they can occur at a time when many elements of the potential activity remain uncertain (e.g. whether sufficient finance will be raised). Local authorities may be unwilling to incur these costs if they are not confident that they will make significant progress or deliver significant outcomes.
Take-up	Even if investments are secured, there is no guarantee that the funds will be deployed at the scales envisaged or required.
Benefit	There is often a difference between the designed and deployed performance of different options – for example as a result of incorrect assumptions or poor installation. Even small variations in performance can amount to significant financial losses.
Technical and technology	Some of the technologies that are being proposed remain relatively unproven. The issues that need to be considered include: does the technology work at scale, what is the longevity of the technology, is the technology reliable, what are the environmental and economic implications of wide deployment (e.g. demand for biomass).
Default	Defaults may affect projected returns (although the exact impact will depend on the assumptions made about default rates at the beginning), they may be used as examples of how the low carbon effort has failed, and they may be used as examples of inappropriate behaviour by local authorities (e.g. increasing personal indebtedness).
Cherry-picking	There is a risk that only easy to reach projects with short payback periods will receive funding, and that investors will not invest in harder to reach options. Potentially, investors could withdraw after the earlier phases, leaving only harder to reach options and no ability to cross-subsidise.

### We would welcome your views on the following questions:

- Have we correctly identified the major risks?
- How significant are the identified risks?
- How could these risks best be addressed?