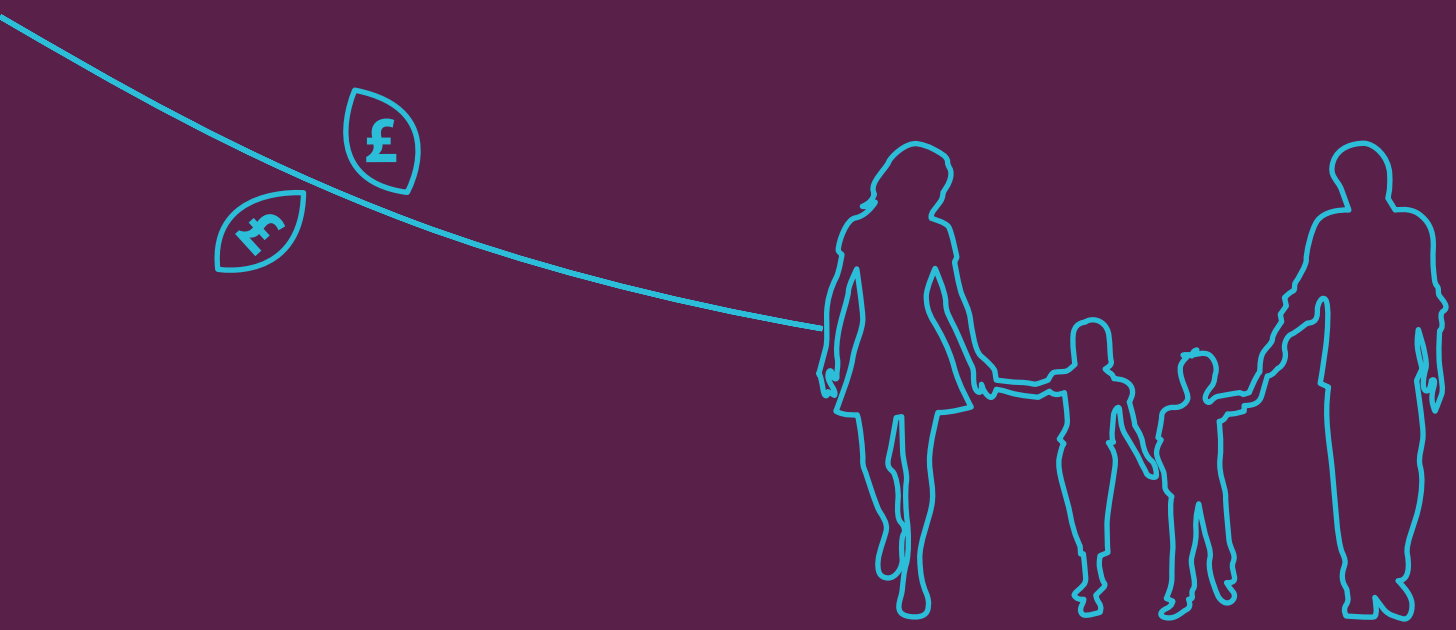
ALDERSGATE GROUP

FINANCING THE FUTURE

A GREEN INVESTMENT BANK TO POWER THE ECONOMIC RECOVERY

Contents



Financing the Future: A Green Investment Bank to power the economic recovery

The Aldersgate Group

The Aldersgate Group (AG) is a coalition of businesses, NGOs, professional bodies, MPs and others that provides leadership, clarity and a distinct voice on vital environmental and sustainability issues. We promote the case that strong environmental policies are essential for economic competitiveness and seek to be a catalyst for fast and effective change.

Aldersgate Group Members

ACCA · Andrew George MP · AXA Investment Managers – redefining / investment solutions · Bank of America Merrill Lynch · Barry Sheerman MP · Biffa · BT · CIWEM · Dinah Nichols CB · Drivers Jonas Deloitte · eftec – Economics for the Environment Consultancy · Emma Howard Boyd · The Environmental Industries Commission · Knowledge Transfer Network – Environmental Sustainability · Forestry Commission · Friends of the Earth · green alliance · Herbert Smith – Herbert Smith in association with Gleiss Lutz and Stibbe · iema – Institute of Environmental Management & Assessment · Institute for European Environmental Policy · ice – Institution of Civil Engineers · Jason McCartney MP · Jaguar · Land Rover · John Edmonds · L&Q – creating places where people want to live · Lord Teverson · Lord Whitty · Martin Horwood MP · Michael Meacher MP · Microsoft · MITIE · ownergy – make energy make money · Pamela Castle OBE · PepsiCo UK & Ireland · Peter Jones OBE · Professor Paul Ekins · RSPB · SEPA – Scottish Environment Protection Agency · Sir John Harman · SKM Enviros · smartestenergy · SpeechlyBircham · sustain · Tim Yeo MP · UK Green Building Council · Willmott Dixon · WWF · wyg

The views expressed in this document are those of the individual authors and are not necessarily shared by the Aldersgate Group, its membership or the project supporters.

Green Investment Bank (GIB)

There is broad cross-party support for the creation of a GIB and it is a commitment in the Coalition Agreement. The Government is considering a wide range of options for the scope and structure of the GIB and will publish detailed proposals after the Comprehensive Spending Review in the Autumn.

The creation of a GIB was a key recommendation from the AG's report *Financing the Transition* (October 2009) that examined the financial barriers to building low carbon infrastructure at the scale and pace required to meet the UK's low carbon and energy needs.

Project Supporters

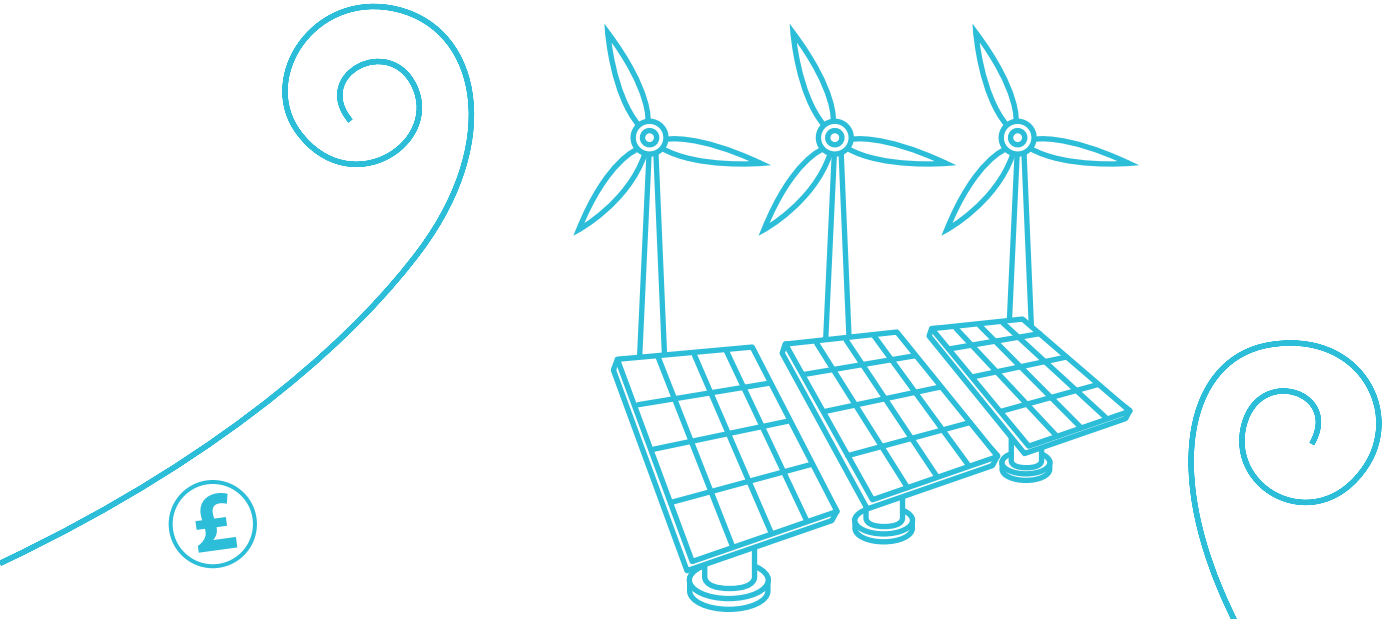
PricewaterhouseCoopers · Business in the Community – The Prince's Mayday Network · Bank of America Merrill Lynch · green monday · centrica

Green Investment Bank Position Statement September 2010

The UK is facing a time of considerable economic stress. Restoring growth and re-balancing the economy are urgent priorities. Focusing our recovery effort on low carbon growth can re-power the economy, increase our energy security and help tackle climate change.

Rapidly accelerating investment in low carbon and environmental technologies will also increase the competitiveness of Britain's businesses in the global market, protect consumers from fossil fuel price shocks and stimulate growth, especially in the regions. But fulfilling this low carbon vision for Britain will require financial as well as technological innovation.

For this reason we fully support the Government's commitment to set up a Green Investment Bank. This crucial institution can help tackle the significant investment barriers standing in the way of delivering this vital investment in our future. By directly reducing the risks to investors the cost of the energy transition will be significantly reduced for taxpayers and consumers.



Following the publication of the report by the Green Investment Bank Commission, it is essential that the Government builds on this bold vision by swiftly putting forward credible proposals for a strong, powerful and effective institution. This will only be achieved if the plans meet the following key criteria:

1. *Context:* The GIB must be designed with a clear picture of the low carbon economy that we want to achieve and over what time frame. To provide the greatest financial leverage and maximise the macro economic benefits to the UK in terms of growth and jobs, the Bank should not be designed in isolation but in the context of a range of policies (such as energy market reform, effective renewable subsidies, carbon pricing and skills development) aimed at removing barriers to a low-carbon, resource efficient economy.

2. *Urgent Legislation:* A fully independent, accountable and enduring institution must be established in statute in 2011 with a clear low carbon investment mandate. To maintain momentum and inspire confidence, a 'shadow' Board should be set up without delay to lay the foundations for the new Bank. The Bank must be set up in a way which inspires confidence in its expertise, future growth and longevity. Delays in setting up the Green Investment Bank will hold up current investments in low carbon technologies.

3. *Focus:* The Bank must have a clear mandate to leverage low carbon investment. As a priority it must unlock investment in energy efficiency and renewable energy infrastructure – both large scale projects but also smaller scale and community led schemes. Supporting the development of low carbon and environmental industry, R&D, manufacturing, services and exports will stimulate economic growth, jobs and competitiveness.

4. *Green Bonds & Green ISAs:* UK Institutional investors such as pension funds and life insurance companies hold assets worth over £2 trillion. The low carbon energy transition will only be achieved if this large pool of capital is used to support it. To achieve this the Bank must be given the powers to issue a range of Green Bonds. Such products should be designed to meet institutional investors' needs, including their fiduciary duty to achieve the best possible risk adjusted returns for their clients and beneficiaries.

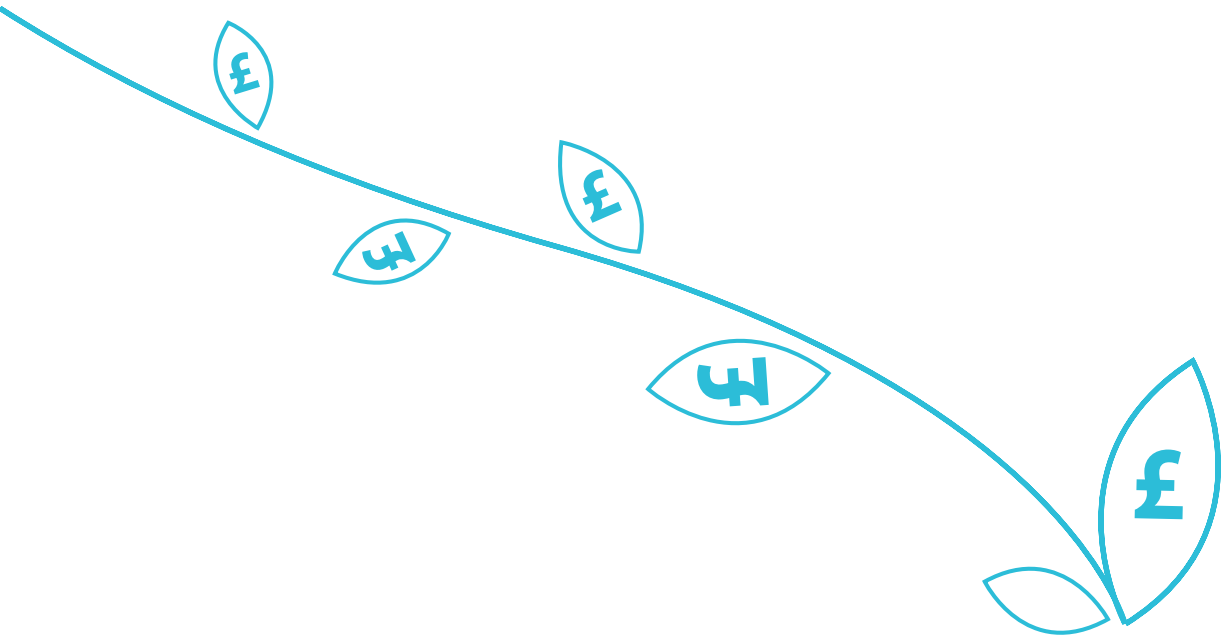
The Bank must also design other innovative financial products such as Green ISAs which could be a source of significant additional capital funding to drive forward low carbon infrastructure investment.

5. *Helping Deliver the Green Deal:* To ensure that the Government's plans for Green Deal energy efficiency loans for homes are successful the Green Investment Bank must be used to help provide low cost capital, financed by Green Bonds.

6. *Capitalisation:* The Government must ensure the Green Investment Bank is sufficiently capitalised by at least £4-6 billion over the next 4 years according to preliminary independent analysis. Over time this could leverage over a hundred billion more in investment from the private sector. It is the minimum required to ensure the Bank fulfils its potential to help make the UK a world leader in the supply and deployment of low carbon technology and the catalyst for a green jobs boom.

7. *Expertise & Advice:* The Green Investment Bank should act as a central point of technical expertise and advice to central and local Government on low carbon finance. It should act in an advisory capacity to Government to ensure new policy frameworks being developed are 'bankable' and should also have the ability to provide specialist assistance and advice to the private sector on developing first of a kind products to grow new low carbon markets.

At a critical time for our country we call on the Government to lead by advancing an ambitious and effective vision for the Green Investment Bank, putting it at the heart of our economic recovery and opening the road to a low carbon future.



Foreword

In receiving and reviewing the wise contributions from all the authors of this report I am struck by two themes.

First, whilst the size of investment in low carbon is massive, £550bn just to 2020 being one widely accepted guide, no-one thinks that with the right risk mitigation private capital cannot meet the demand. Taking a step back this is not surprising. We have always needed high investment rates to make economies competitive and modernised. What is new is the coherence of aim that all this normal investment activity must deliver. And it brings the focus for demand back on the UK, rather than just the fast developing and emerging new economies overseas.

All major investments in our infrastructure, our power generation, our new and existing buildings, and our new manufacturing industries must contribute to a future much less dependent on fossil carbon and profligate use of resources. All this invokes an abnormal level of innovation, same again just will not do. But the change of tack brings an additional risk to investors. Since the Government has articulated so well the challenge, not least though legally binding national carbon targets, it follows that it must also give the same clarity on how its policies will underpin the flow of private capital that is required and waiting. This is where the Green Investment Bank (GIB) is needed, enabling the risks from the innovation that society now demands to be shared according to who can best manage them.

The second theme is the need to unlock the UK's talent to lead the world in implementing a low carbon economy. We have been good at talking about it but this report I think shows that we have the solutions, appetite and skills to invest and build the new economy now. The economic benefit of attracting green investors to the UK is immeasurable. The contributors demonstrate to me that the UK's ability to find innovative financial solutions and be adept at analysing the technical issues is impressive. We have a team of financial leaders who reflect the historic strength of our financial sector, keen to demonstrate once again our ability to lead internationally.

The Government's commitment to creating a UK GIB is welcome, but requires follow through to delivery with some urgency. The combination of economic damage from climate change, mandatory carbon targets, the aftermath of the financial crisis, and the short term shrinking of the public sector, all make the GIB an idea whose time has come. Right now. The GIB is needed to replace a lacklustre economic performance, featuring missed de-carbonisation targets and import-dominated spend, with a high skill, high growth, export-strong economy, attractive to the best of the new wave of green entrepreneurs.

Action requires clarity of vision of what a newly invigorated economy looks like when built consistently on the path to a low carbon and resource efficient future. I hope this report can contribute to the considerable investor and technical acumen needed to create a successful and lasting model for the GIB. Even just the prospect of the GIB has opened up more dialogue, commitment and communication between policy makers, green economy experts and financiers. The Government must harness all this energy and goodwill and meet our expectations to act decisively, creating a GIB to power the economic recovery in a direction of unsurpassed opportunity. In thanking each and every author of this report, I also hope the Aldersgate Group has helped demonstrate the diversity of talent and ideas available to design a successful and lasting model for financing the future.

Peter Young
Chairman, Aldersgate Group

Contributors Biographies

Peter Young is Strategy Director at SKM Enviros and has thirty years' experience in multi-disciplinary environmental management consulting. In his role as Chairman of the Aldersgate Group he is actively involved in promoting the economic benefits of a strongly regulated and technically high quality environmental services sector. He helped launch the AG report, *Financing the Transition* in October 2009 and spoke alongside Bob Wigley, in discussion on the GIB Commission's report in June 2010.

Andrew Raingold is Deputy Director at the Aldersgate Group where he leads on environmental policy and company strategy. He is the author of a number of AG reports, including *Financing the Transition*, and regularly writes articles for economic journals and trade publications. He has played a key role in broadening the impact and membership of the AG and bringing its influence to bear on core areas of strategic interest.

Bob Wigley is Chairman of the GIB Commission, an independent and non-partisan advisory group brought together by the Chancellor of the Exchequer to develop proposals for a GIB that could help increase investment in the low carbon infrastructure and technologies. The Commission published its findings on 29th June 2010. Bob is also Chairman of Yell Group plc and is an investor and entrepreneur.

Tom Murley is the head of renewable energy investment at HgCapital, a UK private equity fund manager. Tom has nearly 20 years' experience in renewable energy investing around the world. Among other industry activities he chairs the Sustainable Energy, Environment and Technology Board of the British Venture Capital Association, and he served on the Advisory Panel to the GIB Commission, chaired by Bob Wigley.

Peter Hobson is a senior banker in the Energy Efficiency and Climate Change Team of the European Bank for Reconstruction and Development (EBRD) where he is responsible for developing sustainable energy financing products. Prior to that he was a programme manager for the International Institute for Energy Conservation Europe and spent eight years working for the investment bank NM Rothschild in London and Sydney where he specialised in financing natural resources and energy projects. He has over 25 years' experience in energy finance including project development, policy dialogue and sustainable development issues.

Andrew Crudgington has led the Policy Team at the Institution of Civil Engineers since 2005. In December 2009 he was the author of the ICE discussion paper on a National Infrastructure Investment Bank.

Jon Kimber is Managing Director, British Gas New Energy, with responsibility for energy efficiency, microgeneration and the delivery of British Gas' CERT / CESP programmes. He plays a leading role in delivering British Gas's vulnerable and fuel poverty programmes and also manages all renewable and microgeneration projects within the Low Carbon Building Programme.

Ronan O'Regan leads renewable and low carbon energy services at PricewaterhouseCoopers as part of the firm's global energy and utilities team. The team specialises in financial modelling, investment valuation and strategic energy market consulting services related to low carbon and renewable technologies.

Ingrid Holmes is Programme Leader on Low Carbon Finance at E3G, an environmental NGO. She has a background in environmental policy and investment, having previously worked for Climate Change Capital, for government and parliament, and for the UK Business Council for Sustainable Energy. She was a member of the GIB Commission and has written extensively on the GIB and on designing policy to deliver low carbon investment.

Richard Wilcox is Head of Social Banking Unit at The Co-operative Financial Services, which has developed a strong profile in funding the delivery of green energy solutions and provided input for the GIB Commission's report to Government on support for SME and community-scale renewable schemes. The Co-operative Group has long been a leader in tackling the energy and climate change challenge with prominent campaigns, customer-led ethical policies and bold energy and emissions targets. Richard is a non-Executive Director and Chairman of the Audit Committee for the Global Commercial Microfinance Consortium and a Director of Finca Microfinance Fund BV. He is responsible for management of the Co-operative Bank's $50m Microfinance Fund.

Jo Butlin is Vice President for Retail at SmartestEnergy. She holds responsibility for leading and developing its retail business in the UK and broader operational functions across the company. Before joining SmartestEnergy, Jo was a member of the senior leadership team at E.ON UK's B2B retail business, served as Head of Customer Services Development for TXU Europe and began her career at KPMG where she qualified as a chartered accountant.

James Cameron and *Ben Caldecott* have been working with the GIB Commission, established in February 2010, as a member of the Commission, and member of the Commission's Advisory Panel respectively. James Cameron is also Executive Director and Vice-Chairman of Climate Change Capital. Ben Caldecott is Head of UK & EU policy at Climate Change Capital.

Jason Langley is a Corporate Finance Manager at AXA Investment Managers; he works with the Responsible Investment department on green bonds and with AXA Real Estate structuring products and financing property.

Emma Howard Boyd is a Director of Jupiter Asset Management and head of the Socially Responsible Investment and Governance Team. Emma led the independent working group which co-authored the report *Green Individual Savings Accounts: An Independent Report to the Conservative Party* in November 2009. Emma is also Chair of the AG working group on low carbon finance.

Editor *Andrew Raingold* (Aldersgate Group)

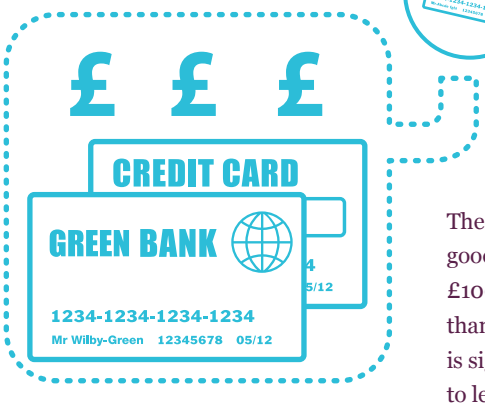
Research *Victoria Fleming-Williams* (Aldersgate Group)

Introduction: Andrew Raingold

The Coalition Government has made decisive action to reduce the fiscal deficit its most urgent priority.

Ministers are currently engaged in critical negotiations with the Treasury over the Spending Review with most government departments set to shrink by at least a quarter over the parliamentary term. What is likely to emerge is one of the fastest and most radical austerity programmes of public cuts in the developed world[1].

The deficit reduction will be delivered with other priorities in mind. Chief among these is the aspiration to devolve power from the centre and empower individuals through the "Big Society". Then there is the determination to ensure prosperity is shared in all parts of the country and that growth is driven by a renewed manufacturing sector. At the same time, this Government will be ever mindful to fulfil its pledge to be the "greenest ever" and invest in the country's aging infrastructure which is so desperately needed for Britain to compete in the modern world.



What is most striking about the government commitment to create a GIB is its potential to have a significant and far-reaching impact in all these areas. It can help to reduce the deficit by accelerating economic growth, job creation and exports; empower communities to solve their own energy needs; bring prosperity to the regions that have significant renewable resources and industrial strengths; stimulate manufacturing in high growth environmental sectors; reduce environmental risks and impacts; and invest in the nation's infrastructure development.

The Low Carbon Transition

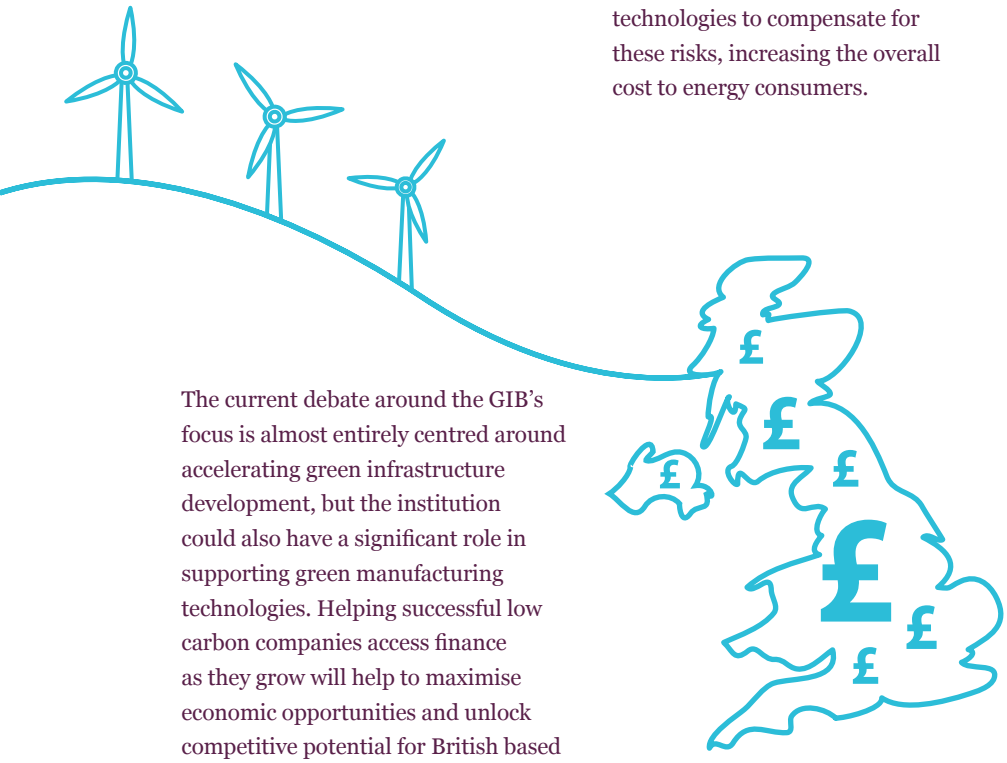
There is strong cross-party support for the UK transition to a low carbon economy with a secure, safe and affordable energy system. As the AG has demonstrated since its inception, this is not only an environmental imperative to meet the global challenges of climate change, energy security and sustainable development but also an economic imperative to secure jobs and prosperity in the future.

The UK market for environmental goods and services is valued at over £100 billion and employs more than 900,000 people[2]. While this is significant, the UK must do more to leverage fully its industrial and business strengths. For example, the UK's environmental sector represents less than 5% of a global market that will be one of key determining factors of economic success in the 21st century[3]. Furthermore, the UK is ranked below competitors such as the US, China, Germany and India in terms of an attractive location for renewable energy investments[4].

The private sector will deliver the majority of the UK's low carbon transition as government spending on environmental technologies is relatively low[5] and unlikely to increase in the current fiscal climate. A fundamental barrier that is holding back progress is the ability of companies to secure low-cost capital at the pace and scale required. The AG's *Financing the Transition*[6] report published in October 2009 found that the achievement of low carbon targets for 2020 and beyond presents a major financing challenge for the UK economy. It recommended the creation of a GIB that would seek to reduce political and regulatory risks for low carbon investments and mobilise capital from institutional investors at scale[7].

Since publication, the GIB became the run-of-the-mill commitment in each party's election manifesto but there has been little clarity in terms of its potential scope and structure. The most notable development has been the publication of the report by the GIB Commission, set up by the Chancellor, that sets out a range of options for addressing the most prevalent financial barriers. The onus is now on the Government to evaluate these options. It will do this by considering each in terms of effectiveness, fiscal affordability and transparency. However, there are further criteria that should inform this analysis. These include the role of the GIB in ensuring greater progress towards:

- Meeting legally binding low carbon and renewable energy targets for 2020 as a step change in the pace of emissions reduction is required, despite the fall in output due to the recession[8];
- Creating jobs, stimulating growth and making the UK a more competitive location for green investment;
- Building a more balanced economy with a growing high-tech manufacturing sector;
- Delivering a more even distribution of wealth, supporting growth in the regions and rural areas; and
- Growing the Big Society, empowering local communities to meet their energy needs and share the proceeds of profitable energy projects.



The current debate around the GIB's focus is almost entirely centred around accelerating green infrastructure development, but the institution could also have a significant role in supporting green manufacturing technologies. Helping successful low carbon companies access finance as they grow will help to maximise economic opportunities and unlock competitive potential for British based firms, particularly in sectors where the UK is well placed to be a global leader (such as low carbon vehicles, buildings and construction, aerospace, chemicals and industrial biotechnology and information and communications technology)[9].

For example, the GIB could provide low interest loans to car manufacturers, as have the governments in France and the United States[10], to help make the UK a european hub for the production of low-emission automotive technology[11]. The potential role for the GIB to support manufacturing should be incorporated into the Government's wider review that will address market failures to accelerate the UK's economic success in environmental sectors.

Above all, the GIB must be assessed in terms of cost-effectiveness. A recent report by Policy Exchange demonstrates that a more holistic policy approach could help reduce subsidies for renewable energy projects[12]. In many cases, the GIB would help to lower overall costs by reducing perceived political risks. The alternative is to raise the rewards for investors, such as increasing subsidy levels for renewable technologies to compensate for these risks, increasing the overall cost to energy consumers.

1
The Economist (14th August 2010) *Radical Britain: The unlikely revolutionary.*

2
Innovas (March 2010) *Low Carbon and Environmental Goods and Services: an industry analysis. Update for 2008/09.*

3
HSBC estimates that the low carbon energy market will triple to US$2.2 trillion by 2020. See HSBC (September 2010) *Sizing the Climate Economy.*

4
Ernst & Young (May 2010) *Renewable Energy Country Attractiveness Indices.*

5
See HSBC (November 2009) *Taking stock of the green stimulus.*

6
Aldersgate Group (October 2009) *Financing the Transition: A strategy to deliver carbon targets.*

7
Such as the UK's commitments under the Climate Change Act and the EU Renewable Energy Directive.

8
Climate Change Committee (June 2010) *Meeting Carbon Budgets – ensuring a low-carbon recovery.*

9
These sectors are highlighted as UK competitive strengths in HM Government (June 2009) *The UK Low Carbon Industrial Strategy.*

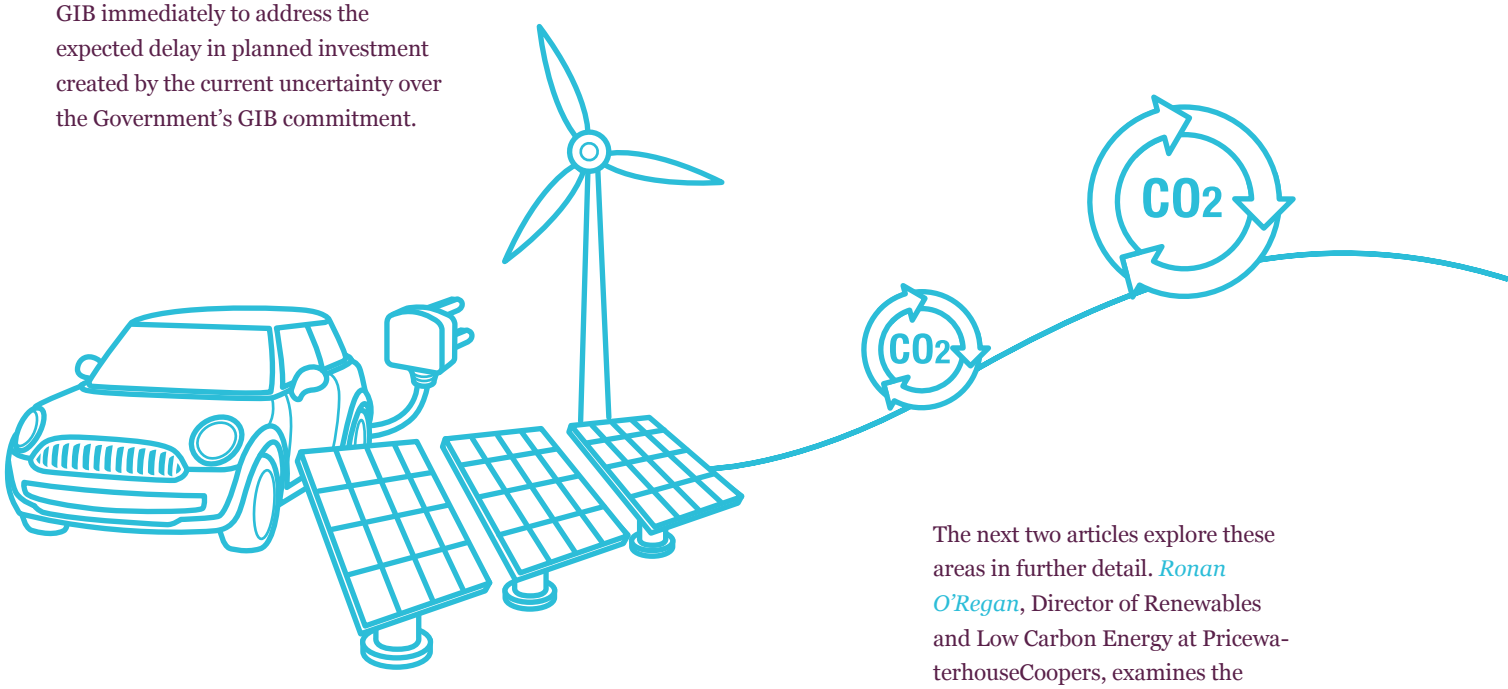
10
Last year, France's government granted PSA Peugeot Citroën and Renault € 6bn ($7.4bn) in low-interest loans, on top of aid for their electric car programmes. The US Department of Energy has approved billions of dollars in low-interest loans for automakers including Nissan, Ford, and electric car start-up Tesla Motors. See John Reed (24th June 2010) *The Financial Times: Car industry hopes boost to manufacturing will help.*

11
To help achieve this aim, Prime Minister David Cameron has recently approved a £20.7m grant for Nissan to produce its plug-in Leaf car in the UK, and a £360m guarantee for Ford to develop a new generation of low-emission "eco-boost" engines and other low-CO_2 technologies in Britain.

This discussion paper demonstrates how the GIB could address financing barriers and stimulate growth in three specific areas.

(1) Scope and Ambition

The estimated low carbon investment required by 2020 is at least £550 billion. *Bob Wigley*, Chairman of the GIB Commission, outlines the key financial barriers that must be overcome to mobilise private sector finance at this scale against a backdrop of severe public spending cuts. Potential solutions include the rationalisation of government funds and bodies as well as the introduction of green bonds and ISAs. The Government is urged to establish a GIB immediately to address the expected delay in planned investment created by the current uncertainty over the Government's GIB commitment.



Tom Murley, head of renewable energy investment at HgCapital, argues that the design of the GIB must go hand-in-hand with the publication of a low carbon economy roadmap and in conjunction with other energy policy reviews. An overriding principle should be that the GIB must complement, not crowd out, the private sector. This should be incorporated into the GIB's core mission and can be achieved by investing alongside private sector investors and withdrawing from sectors after market failures have been corrected.

The principle of not crowding out the private sector has been successfully adopted by public financial institutions and development banks around the world. *Peter Hobson* draws on his experience as a senior banker at EBRD to put forward recommendations for the UK. These include the need to understand fully the constraints of investment projects such as energy efficiency, as there are other barriers beyond the availability of capital, that result in relatively low returns for certain green investments.

This point is made frequently by the authors of this report. While the GIB must address financial barriers, the Government must continue to tackle other barriers to investments in green technologies, such as energy market reform, planning legislation, grid connection and emerging skills gaps. *Andrew Crudgington*, Senior Policy Manager at the Institution of Civil Engineers, demonstrates that the GIB, on its own, will not be able to deliver the UK's infrastructure needs. Additional steps such as creating a robust infrastructure strategy and aligning regulatory protocols to investment horizons must be adopted. This would allow the GIB to play a pivotal role in safeguarding the UK's international competitiveness.

(2) Barriers and Solutions

This section is introduced by *Jon Kimber*, Managing Director of British Gas New Energy, who demonstrates how the GIB could catalyse investment in offshore wind and energy efficiency, both crucial components of the UK's low carbon energy strategy.

The next two articles explore these areas in further detail. *Ronan O'Regan*, Director of Renewables and Low Carbon Energy at PricewaterhouseCoopers, examines the delivery of offshore wind energy. He makes the case that the GIB should reduce risks for developers in the construction phase, acting as a catalyst to attract equity in the short term that can be re-financed by traditional infrastructure investors once the projects are operating successfully.

In terms of energy efficiency, *Ingrid Holmes* from E3G argues that the GIB is a key missing component to make the Green Deal effective, the Government's flagship policy in this area. A GIB-led Green Deal could help cut average energy bills by 18% as opposed to an estimated 13% increase. This will

deliver not only warm homes but also emission reductions, increased energy security, competitiveness and the creation of new jobs in the economy.

The final two contributions in this section demonstrate the potential opportunities for the small-scale renewable energy sector that has been adversely affected by the current lack of credit finance. *Jo Butlin*, Vice President for Retail at SmartesEnergy, shows that numerous small to medium enterprise (SME) energy projects have the ability to plug a vital gap in UK energy supply and act as a multiplier for growth and jobs in the economy. *Richard Wilcox*, Head of Social Banking Unit at The Co-operative Financial Services, demonstrates how the GIB could improve returns in this sector by reducing risks and decreasing relative transaction costs.

(3) Capitalisation and Funding

The GIB must have sufficient capitalisation and funding to sustain its ongoing operations. Despite the current fiscal crisis, *James Cameron* and *Ben Caldecott* from Climate Change Capital present a number of potential solutions. These include the issuance of long-dated and asset-backed bonds, with their proceeds ring-fenced for investment in tangible low carbon infrastructure. If a portion of the estimated £40 billion in auction revenues from the EU Emissions Trading Scheme were used for initial capitalisation, the GIB could conceivably unleash hundreds of billions of pounds more in low carbon investment.

Jason Langley from AXA Investment Managers reinforces the case that the GIB should create bonds rather than equity investment products to maximise institutional investor participation in decarbonisation. These should aggregate the debt from multiple renewable energy projects to produce large bonds with significant liquidity. Government guarantees would also be required in the early stages of projects, where risks are highest, as has been the case in California, France, Germany and Spain.

While institutional investors may provide the majority of funds for the GIB, retail investors could provide an important source of additional funding. *Emma Howard Boyd* from Jupiter Asset Management discusses the merits of introducing a Green ISA that could be a cost effective way to give everyone a chance to be an investor in our low carbon future.

Conclusion

The Prime Minister and Deputy Prime Minister have indicated that every government spending decision must help equip Britain for long-term success, signalling the end of "short term gimmicks, top down dictats and wasteful subsidies of the past"[13]. A sufficiently bold and ambitious GIB would ensure that this is the case; transcending the political cycle, delivering in a more strategic way and reducing the nation's energy bill. Most of all, it can help ensure that the UK is at the forefront of the technological and social shift that will increasingly become a major determinant of economic success.

12
Policy Exchange (July 2010) *Greener, Cheaper.*

13
Number 10 (3rd August 2010) *PM and Deputy PM open letter to Cabinet.*

Section One: Scope and Ambition

A new approach to low carbon finance

Bob Wigley

If anyone were in doubt that new sources of private sector capital will be required to finance the UK's transition to a low-carbon economy, the Spending Review process has surely made it clear. Significant cuts to departmental budgets will make it absolutely essential for private capital to step in and pick up the slack.

The GIB Commission, an independent and non-partisan group of experts that I chaired, worked hard during the first half of the year to identify how Britain could unlock private sector investment to create a 21st-century green economy. The commission's report, which was published at the end of June, recommended the creation of a GIB that could work to address the major investment barriers and market failures that are constraining investment in low-carbon infrastructure and technologies.

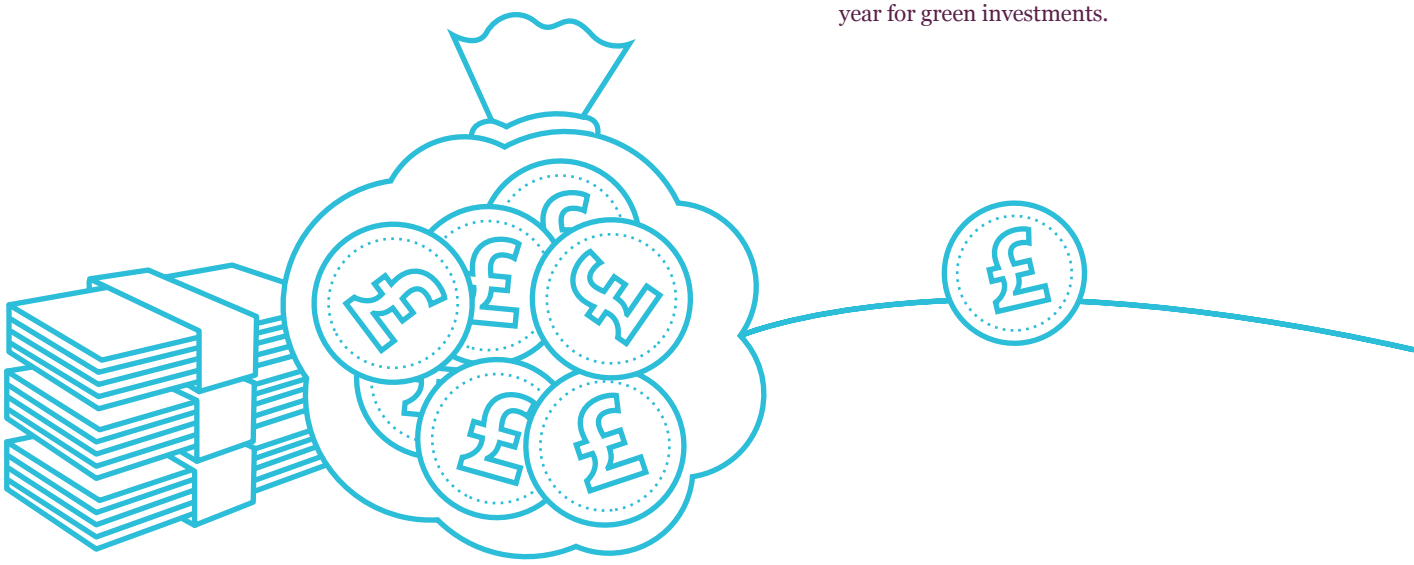
The sheer scale of the low-carbon investment needed in the UK – about £550bn by 2020 – combined with constrained bank and utility balance sheets, policy and regulatory uncertainty, and technological risk means there is a pressing need for a new approach to low-carbon finance if the UK is to meet its legally binding climate change targets.

The commission's work shows we should not be put off by the investment required, as models used successfully in other countries indicate how the UK could create a productive partnership between government and the private sector. The Brazilian Development Bank is one example, while the Marguerite fund, initiated by the European Investment Bank, is another. There are many others in Germany, France, Spain, Japan and the US from which we have drawn inspiration.

A core part of the GIB's mission should be to make existing government support for low-carbon innovation more cost-effective. Ad hoc government initiatives over the preceding decade have resulted in a large number of quangos and funds with similar objectives. The GIB could roll up the relevant quangos (which today spend at least £185m per year) and funds (which total about £2bn) so that it can make the investment more efficient.

The GIB would make public efforts to stimulate innovation around climate change more coherent by creating one main government body with this aim, and one whose operating principles would ensure it did not crowd out the private sector.

The GIB should facilitate early debt and equity investment in climate change-related technologies and projects, and provide funding for later projects. To build public support for the green agenda and also involve the retail customer, products would include new "Green ISAs", which, if they captured only 10 per cent of the total cash ISA market, could result in about £2bn a year for green investments.



The institutional market and particularly the insurance sector, which needs the sort of long-term and steady returns that infrastructure projects offer, could provide £10bn a year of investment in green bonds structured by the GIB. And the GIB could provide insurance products to mitigate some of the risks that stop projects proceeding today. These products will be essential if some of the largest renewable projects are to be financed all the way to operation.

Other initiatives could include giving incentives to small and medium-sized businesses to implement energy efficiency measures through business rates and underwriting a medium-term carbon price. Options could be granted to project sponsors to allow them to sell completed projects on the basis of a regulated asset return. This would reduce the incentive for government to change regulatory rules mid-project, as has occurred in Spain, by putting some of the cost of such changes back on government, through the GIB. Today the risk of such regulatory changes represents a major obstacle to building such projects.

The process of creating a GIB should start immediately: experience in other countries shows that the expectation of a GIB can delay existing planned investment. It would create new businesses and jobs, which would help rebalance the UK economy regionally and sectorally consistent with other new government initiatives. Establishing the GIB would enable Britain to deliver the scale of investment required to tackle climate change, whilst also helping create green companies and jobs for the future. This is a critically important mission and with a clear timetable for implementing the bank's work, I urge the government to make a start.

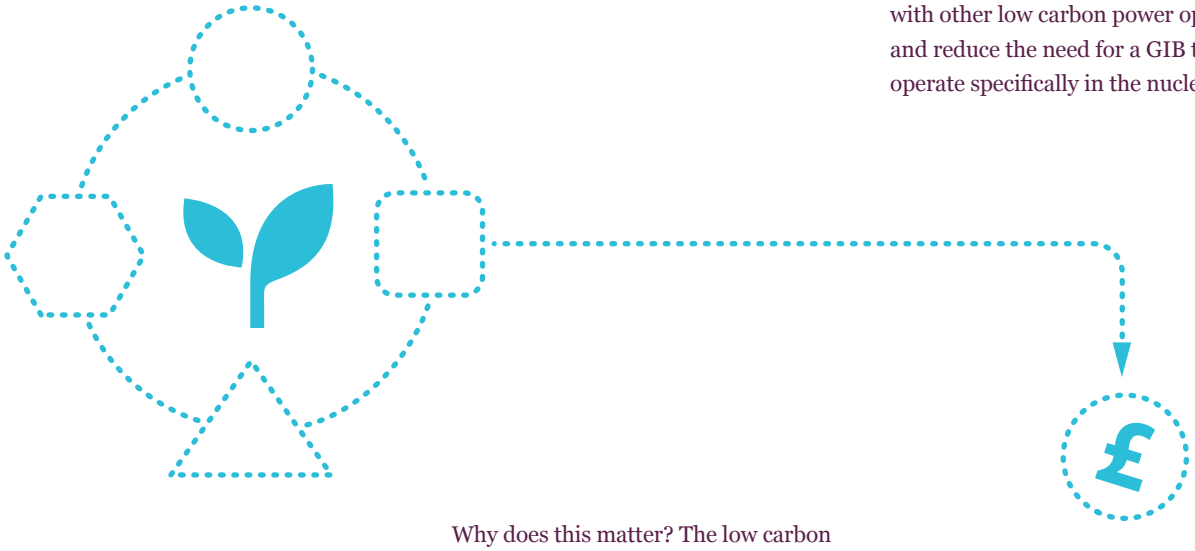
The cart before the horse?

Tom Murley

The facts are known. The UK requires hundreds of billions of pounds of investment to achieve its low carbon, renewable energy, energy efficiency and energy security targets. A substantial challenge before the financial crisis; it is greater today. A GIB has been mooted as a catalyst to attract the capital needed. Industry practitioners, finance houses and politicians agree that a well designed GIB can be instrumental in mobilising this capital. But what does a well designed GIB look like?

It should rest on three pillars.

- Tailored to deliver a postulated low carbon economy
- Clear and definable objectives and a scope of activity
- Clear operating principles



The British Venture Capital and Private Equity Association's Sustainable Energy, Environment and Technology Board, chaired by the Author, has published a paper on GIB design.[14] Key parts of that paper are plagiarized below, primarily the objectives and principles. But the precursor to all of it is a roadmap for a low carbon economy.

Tailored to the Objective

We cannot design a GIB without a clear picture of the low carbon UK economy that we want and can achieve, and the implementation timeline. We must answer many questions. How much large-scale clean generation (e.g. nuclear and offshore wind)? How many small, community owned renewable projects and can they secure planning? Do we seek the lowest cost energy, or will we accept higher costs to foster domestic industries and create jobs? Until we answer these and other questions, designing and implementing a GIB is like a Savile Row tailor cutting a suit without measuring the customer.

Why does this matter? The low carbon financing needed varies with the outcomes desired and each form of financing carries its own challenges. Large scale infrastructure projects (e.g. CCS, nuclear, offshore wind), require long term capital from pension funds, banks or the public markets. Creating manufacturing and service businesses require shorter-term growth capital, typically from capital markets or private equity funds. New and unproven technologies require high risk venture capital. Energy efficiency (e.g. home insulation, energy savings for SMEs) requires retail finance for millions of customers with low frictional costs.

Energy market design too plays an important role. Will Britain continue to have a competitive energy market that gives no specific price signal for building nuclear power (which, in the Author's opinion, must be a part of realising a low carbon Britain), or will there be a firmer price signal, either through a nuclear purchase obligation or a sufficiently high floor price on carbon? A continued open market could make it difficult to attract longer term capital for nuclear and that could raise the question of a role for the GIB in nuclear. A firmer price signal, such as a sufficiently high and clear carbon floor price would allow the long term costs of nuclear to be recovered (along with other low carbon power options), and reduce the need for a GIB to operate specifically in the nuclear area.

We must answer three fundamental questions

First, what do we want? How much biomass, how much energy efficiency, how much carbon capture and storage?

Second, what can we achieve? Solar and wave and tidal are not likely to deliver large amounts of energy in the next decade, and the long-term potential remains uncertain. Biogas penetration, from the Author's experience, will be far less than forecast

Third, what are we willing to pay? Energy will be more expensive, if only because existing, fully amortized infrastructure needs to be renewed (e.g., nuclear) and the investment recovered. But some low carbon choices are more expensive than others.

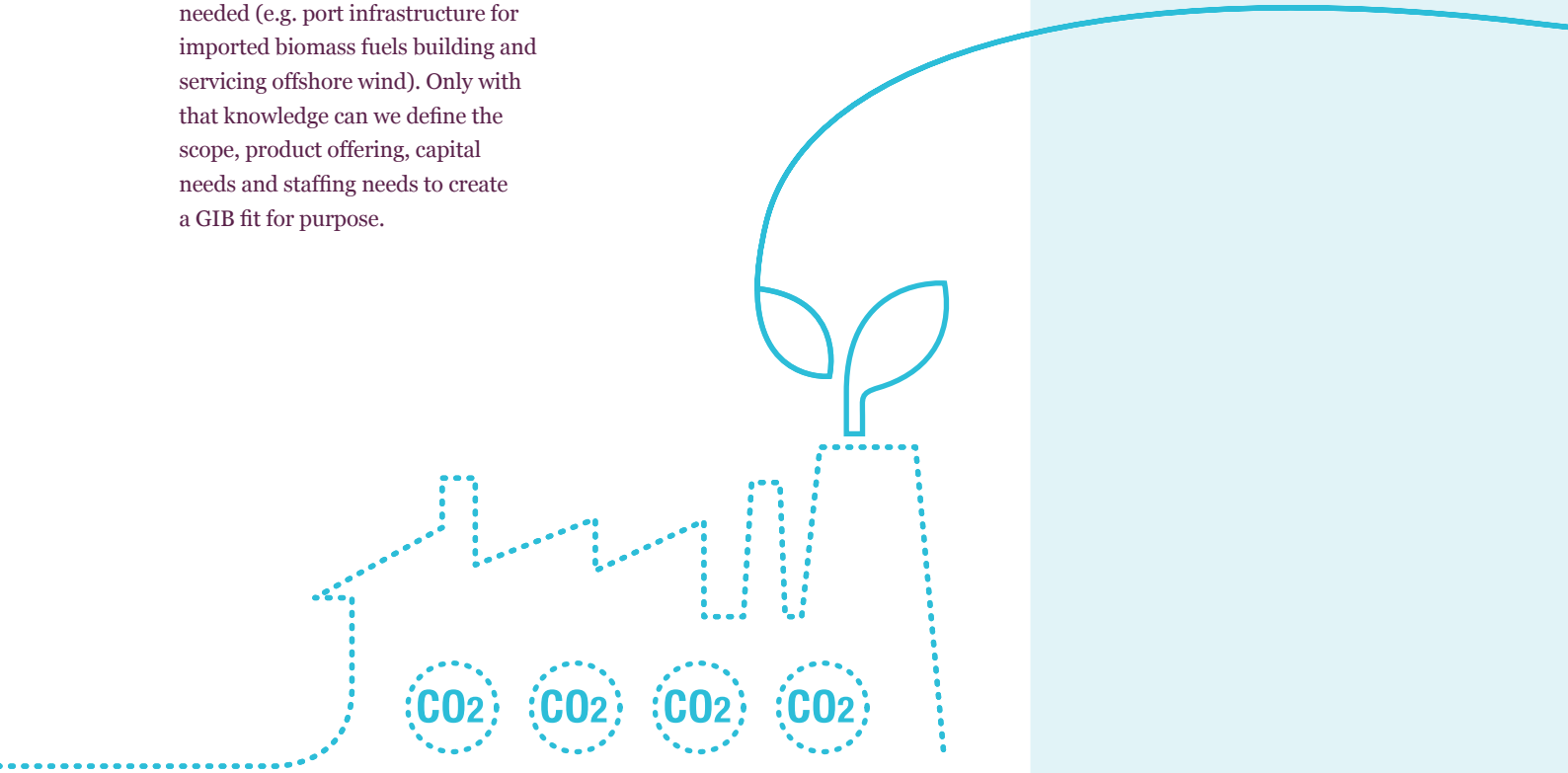
Timing too plays a role, as not all technologies are ready. There are enabling investments like smart meters and grid improvements that must come first. We must determine what ancillary investments are needed (e.g. port infrastructure for imported biomass fuels building and servicing offshore wind). Only with that knowledge can we define the scope, product offering, capital needs and staffing needs to create a GIB fit for purpose.

The July 2009 Low Carbon Transition Plan is too aspirational, long on goals but short on details. An energy market review is just beginning, with many possible outcomes. Coalition Energy Policy is evolving and national renewable energy targets are at odds with other policy proposals like localism and planning reform. Thus, GIB design must proceed hand-in-hand with the Energy Market Review, the Renewables Obligation review and other policy reviews underway or planned. Close coordination between all Ministries and departments will be required.

Objectives and Scope

Regardless of the roadmap, we can articulate broad objectives, scope and principles for a successful GIB, as outlined in the BVCA paper.

The GIB should have a single goal: to help deliver the private capital necessary to achieve the UK's low carbon, renewable energy and energy security targets.



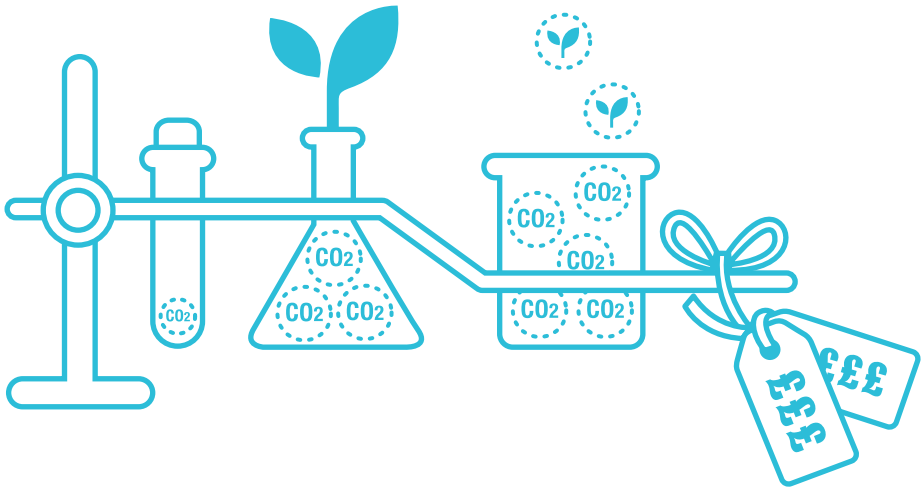
14
Considerations For Creating A UK GIB
www.bvca.co.uk/assets/features/show/GreenInvestmentBank

It should pursue three principle strategies in support of the objective:

1 *Catalysing and facilitating private sector investment.* The GIB should invest in a manner that encourages and promotes greater private sector investment, by investing alongside the private sector in a range of debt and equity investments, seeking commercial rates of return.

2 *Providing public sector funding where private sector capital is not available.* Certain critical technologies (such as carbon capture and storage, offshore wind, wave and tidal power) present development/deployment risks and time frames to commercial viability beyond the scope of typical private investment. Similarly, small companies such as housing insulation contractors will generally not offer the scalability or returns required by the private equity sector whilst their access to bank financing will have declined with the credit crisis. The GIB should be able to provide the grant, seed equity and business loans and other financial instruments to support such businesses.

3 *Underwriting the economic risks of policy change.* Private investors are wary of regulatory risk, especially in the UK with its history of near continual consultation and change. The GIB should offer financial instruments and guarantees that remove the economic risk of policy change from investment.



Operating Principles

The core principle for the GIB should be:

Private capital not public capital; the market and not Government.

The GIB should be a facilitator and catalyst of private capital; not a substitute or a competitor. If private investors believe that they are competing against subsidised/artificially low-cost capital, or if the GIB is not seeking a commercial rate of return, then private capital will not flow. It should not pick winners, the market is better at that.

This can be achieved through three key operating principles:

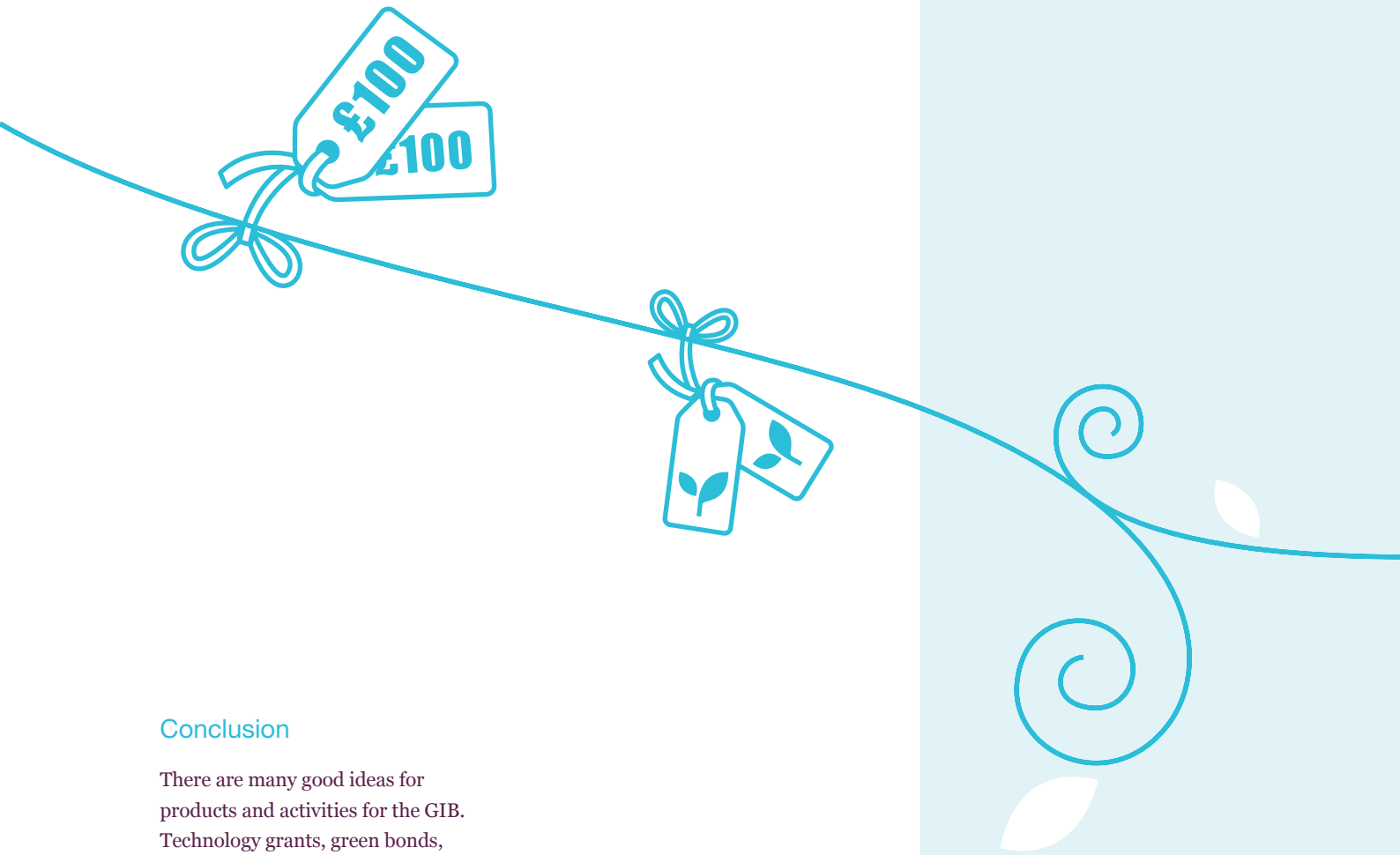
1 *Follow the private sector lead.* Wherever possible, the GIB should invest alongside private sector investors who originate, diligence, price and promote the investments on a commercial basis. This should ensure that the market, not the Government, picks the winning technologies, projects and management teams, whilst ensuring appropriate pricing and returns relative to the risks involved.

2 *Address market failures.* The GIB should operate in areas where there are identifiable and addressable market failures. For example, the collapse of an effective banking syndication markets is a limiting factor in projects getting funded. The GIB could intervene to rectify this and other market failures, for as long as they exist, and withdraw as soon as they are corrected. It is worth noting that it is not a market failure if the market fails to invest in a technology or sector favoured by policy – it may be the market is saying the risks are not worth the potential returns.

3 *Independent of policy formation.* The GIB should be an implementer, not a setter of policy. By placing the GIB apart from any regulatory or policymaking role, it will ensure that it operates on an independent commercial basis and keeps to its core mission of stimulating private sector investment. However, this does not mean that it should not have a key role as a source of independent technical and economic research and analysis for.

has merit in the abstract, but until we have the roadmap and a final destination defined for a UK low carbon economy, we cannot design the GIB for the journey.

A GIB can make a difference, but only if is tailored to the defined needs. So let us proceed with all deliberate speed in defining the roadmap and outcome for the low carbon economy. With that scope defined, and applying the principles outlined above, we can tailor the GIB and its products, activities and sources of capital to deliver the low carbon economy that we want.



Conclusion

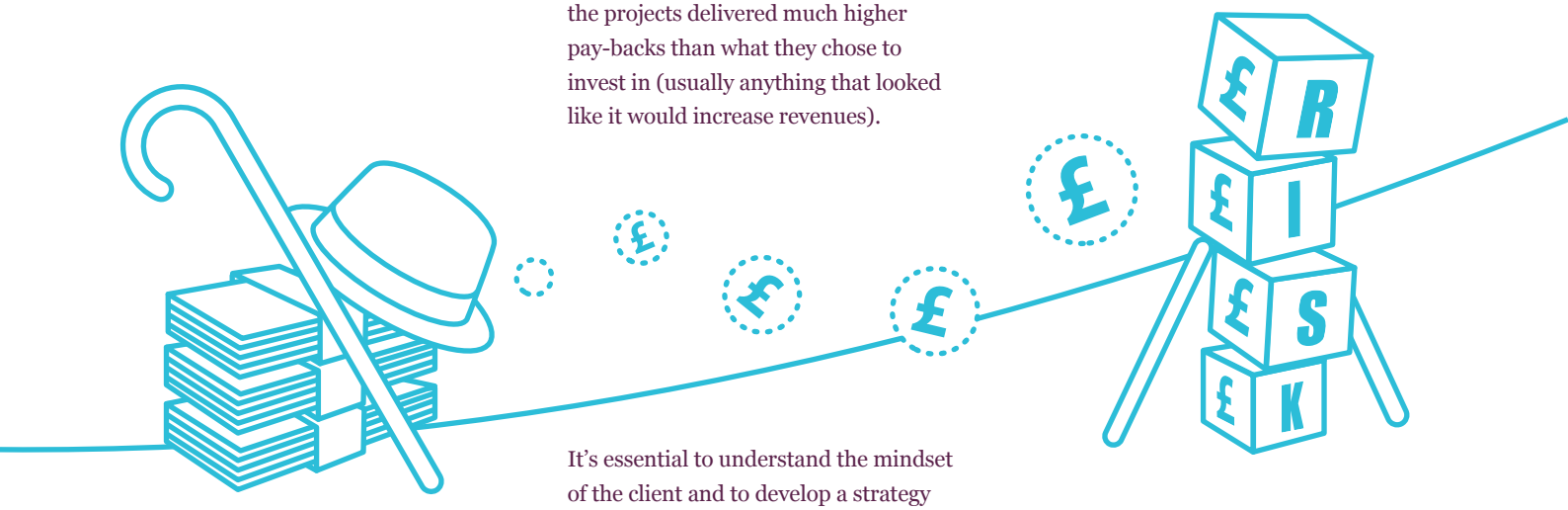
There are many good ideas for products and activities for the GIB. Technology grants, green bonds, insurance products for offshore wind, carbon floor price instruments, "put options" to a regulated return. The list goes on and on. Each of these

Experience from other development banks

Peter Hobson

Development banks enjoy the great privilege of being able to combine access to relatively large amounts of capital with a mandate from their shareholders to deploy it for things that other banks cannot or will not finance themselves. So it's a bit like the old Heineken adverts - how do we reach the places other banks don't reach?

When the EBRD established an Energy Efficiency Unit in 1994 (it's now called the Energy Efficiency & Climate Change Team) it was generally assumed that simply by having a team doing nothing but energy efficiency projects, the only constraint would be how quickly we could get them in front of the credit committee. With energy prices starting to go up investing in low risk energy efficiency projects that made huge returns seemed like a no-brainer, particularly in post communist central and eastern Europe and former Soviet Union.



In fact the opposite happened: for the first few years we struggled, closing very few projects which themselves laboured to get off the ground. The reality was that financing energy efficiency projects was much harder than financing conventional ones.

It took several years to figure out the right approaches – by 2000 we had begun to work it out (although we're still learning) and by the last count in the four years to June 2010 the EBRD had provided exactly €5 billion of debt or equity for sustainable energy projects, around 17% of all EBRD financing during that period (and achieving annual carbon mitigation of 30 million tonnes CO2e).

So what lessons have we learnt along the way? Some of the most relevant ones that the GIB must address are as follows:

Understand what are the constraints: this may seem obvious but it's important not to make the mistake that simply allocating some capital will guarantee making projects happen. It won't. Since the financial crisis it's true that capital has become much more constrained but it was clear before then that businesses often overlooked energy efficiency opportunities. This was the case even when companies could easily access the capital and the projects delivered much higher pay-backs than what they chose to invest in (usually anything that looked like it would increase revenues).

It's essential to understand the mindset of the client and to develop a strategy which they will buy into. As there are as many potential energy efficiency projects as there are energy users this is not straightforward and developing a strategy to break down these groups and prioritise is essential.

Leverage commercial banks: achieving the degree of carbon reduction we need will require far more capital than any development bank or government can provide. Only commercial banks have this level of resource (even post crisis) so one way or another most of the capital needed to avoid dangerous climate change will have to come from them.

It follows that a large part of the EBRD's strategy involves working out how to do so and we have developed a range of instruments to get banks lending for energy efficiency and renewables. These would not all necessarily translate directly to the UK market but the GIB can play a similar role in working with commercial banks to identify the gaps in the market and work out ways to fill them. Risk-sharing and co-financing come into this but a big part is simply doing some of the preparation work that commercial banks aren't set up to undertake themselves.

Identify areas of added value: as a complement to leveraging commercial banks it's also important to identify those areas where banks are simply not active yet but where capital is needed. Here a development bank can play a key role not just in providing that capital but in addressing the underlying obstacles that put banks off and helping to create the commercial frameworks they need to get lending on a large scale.

For example at the EBRD we're working with governments and local authorities to develop the commercial models for energy performance contracting for public buildings. We will support the implementation and finance these contracts initially but as the approach becomes established, bring in commercial banks on the back of this.

In other countries we have dedicated instruments for providing limited recourse finance for small renewable energy projects. These are too small for local banks to bother with on a project finance basis but by creating a portfolio of projects with a standard financing approach we can bring the critical mass needed to attract commercial finance. There are other examples but essentially they all come down to being able to provide the initial resources and capital to create a sustainable financing model which other banks can then build on. The GIB can play a key role in doing this in the UK.

Use technical assistance: most of the international development banks use funds from their shareholders to finance technical assistance – essentially hiring consultants to do much of the technical feasibility and project implementation work needed to assist clients. In the EBRD we have used technical assistance extensively – for example providing free energy audits to clients but also for working with commercial banks and for policy dialogue with governments – essentially to provide expertise and resources wherever we see gaps, such as the added value areas mentioned above. If used properly technical assistance can achieve very high leverage of investment funds and create sustainable financing frameworks. Without it, very little of what we've achieved would have been possible.

Get the right expertise in-house: One of the keys to the EBRD's achievements in financing sustainable energy has been to engage the right range of experts within the Energy Efficiency & Climate Change Team: we have bankers, engineers, carbon finance and policy specialists and then additional programme specialists covering, for example, work with commercial banks or small renewables developers. None of us on our own can cover everything but between us there are very few gaps. Yet we are still a small team with around 15 professional staff in London, so the right mix of expertise can go a long way.

Make policy dialogue work: being a banker and a sustainable energy specialist means you end up knowing a lot about the hows and whys of financing these kind of projects. This is extremely valuable knowledge for preparing effective polices so it is essential that a development bank works closely with government departments and their advisors to support the policy development and implementation process. This is a virtuous circle as the objective is that policy improvements will lead to an implementation framework that facilitates more financing. This may seem obvious but it will not happen as effectively as it should without a high level of communication and feedback between the policy makers and the bankers, and the GIB can play a key role in making this happen.

After fifteen years' navigating the challenges and working out the solutions, sustainable energy financing is still difficult but with the right tools and resources our experience is that a great deal can be achieved. If these challenges are effectively addressed, the GIB could play a significant role addressing financial barriers and mobilising investment in low carbon technologies and solutions.

Financing the UK's infrastructure

Andrew Crudgington

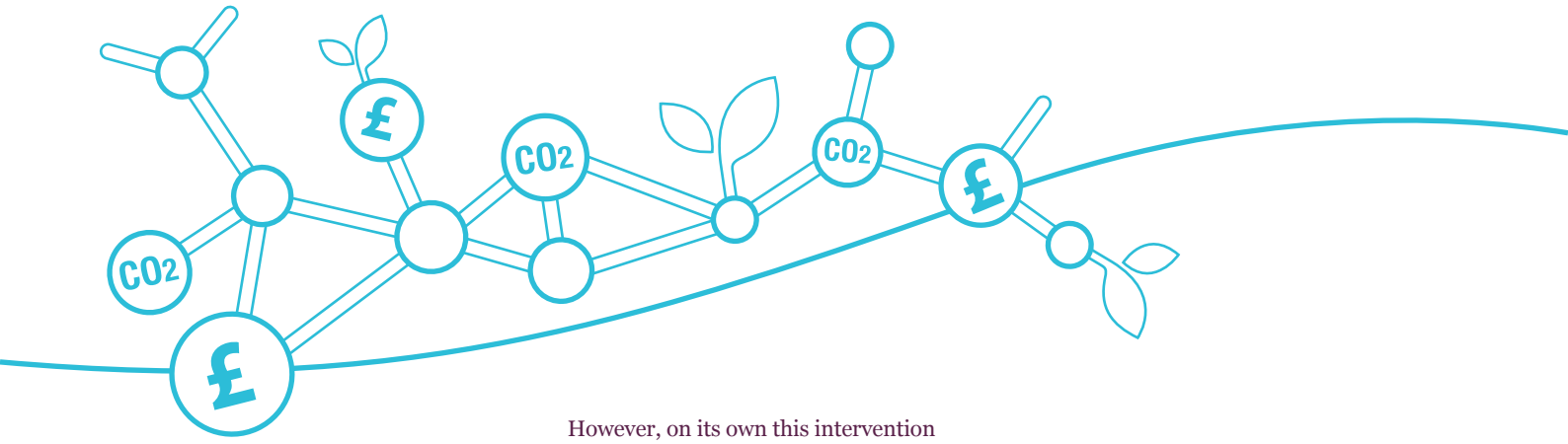
The Treasury estimates in the two decades up to 2030, demand for infrastructure investment will be between £40 billion and £50 billion per year[15].

Much of this investment is linked to the transition to a low carbon economy but efforts to secure investment to meet the 2020 and 2050 emission targets will be in the context of competing demands from increasing maintenance backlogs, investment to marginally improve capacity and investment to provide additional capacity.

The GIB has the potential to reduce the impact on the shrinking public purse, whilst also helping to ensure that the aspirations and scope of the different infrastructure programmes currently promoted from different departments are better coordinated and aligned to achieve a more balanced development effort for the UK. Above all, it could bring about greater efficiency through a reduction in the transaction cost associated with the funding of infrastructure projects.

2. Aligning regulatory protocols to investment horizons

Five-year regulatory periods have helped to manage investment in utility infrastructure. However in some cases they are still not long enough. Very large and critical infrastructure developments such as offshore wind have investment horizons longer than five years and need intervention to secure private investment. With little capital available, there is likely to be more pressure to focus on immediate affordability at the expense of long-term value for money and carbon footprint. To address this danger we need to re-examine the Treasury Green Book and associated guidance.



The Institution of Civil Engineers (ICE) welcomes the inclusion in the new government's coalition agreement of provision for creating a GIB. In a discussion paper published in September 2009[16], we suggested that such an institution, initially capitalised by government and then able to use the government's AAA rating to raise funds on international markets, could provide a vital source of long term finance and help hold down the cost of capital across infrastructure sectors. The projects to which a GIB lent could also create valuable assets, further underpinning the bank's creditworthiness.

However, on its own this intervention will not overcome all the barriers to securing increased funding and improving the delivery of projects. Four key steps will be critical[17]:

1. Creating a robust infrastructure strategy

A clear framework can give client bodies the industry supply chain and funders the confidence to invest. To address competing demands for resources and to provide greater confidence to key stakeholders, the UK must develop a transparent mechanism to prioritise factors such as whole life emissions, economic benefit, value for money and affordability. ICE therefore welcomes Infrastructure UK (I-UK)'s project to produce a National Infrastructure Framework.

3. Developing robust and complementary funding models

Funding infrastructure efficiently and cost effectively will require a range of models: the GIB will need to sit alongside older approaches including public-private partnerships (PPP). To avoid potential crowding out, the remits of, and interfaces between, funding models will need to be clearly understood. In the current financial climate there is also a danger that the desire to transfer, rather than share, risk will increase. This could raise prices and reduce the bankability of schemes, compromising the availability of funding routes.

4. Efficient and effective commissioning, procurement delivery and operation

In the coming period of austerity, there will be an increasing focus on elements of infrastructure management that do not visibly add value. Opportunities exist to better integrate infrastructure development and the wider built environment to avoid inefficient competition for funding and skills. I-UK's current investigation into the costs of major infrastructure projects is a welcome opportunity to examine efficiency across the asset lifecycle from commissioning through to operations.

If these four steps are taken, the GIB could play a pivotal role in meeting the UK's infrastructure needs. It is imperative for international competitiveness that sufficient long term funding is available on a continuous basis and at acceptable rates to develop and maintain our transport, communications, energy, water and waste management networks.

15
HM Treasury (March 2010) *Strategy for National Infrastructure.*

16
Institution of Civil Engineers (September 2009) *Financing the UK's Infrastructure.*

17
For more information, see Institution of Civil Engineers (November 2009) *State of the Nation: Low carbon infrastructure.*

Section Two: Barriers and Solutions

Catalysing capital, tackling climate change

Jon Kimber

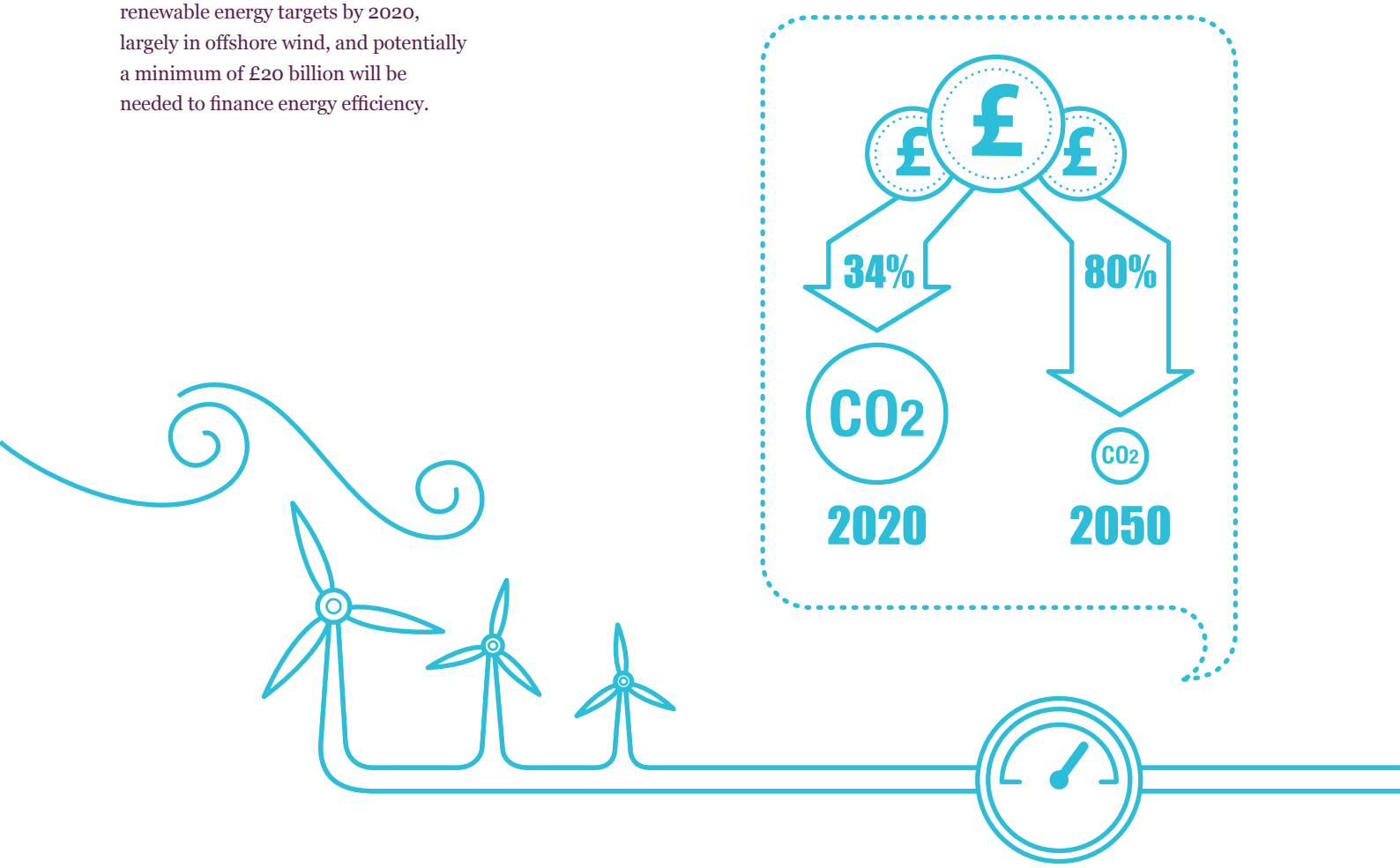
The threat of climate change demands action and the UK has rightly set itself the task of meeting this challenge. We have demanding carbon reduction targets of 34% by 2020 and 80% by 2050. Separately, the UK needs to deliver 15% of all energy from renewable sources by 2020. With concerted effort and commitment from government and industry, these targets can be achieved.

The GIB can play a key role in enabling this, catalysing investment in the crucial areas of offshore wind and energy efficiency. Key to delivery will be innovative financing of upfront capital. It is estimated that around £136bn[18] will be needed to meet renewable energy targets by 2020, largely in offshore wind, and potentially a minimum of £20 billion will be needed to finance energy efficiency.

Centrica is leading innovation in working with investors and has plans to invest £1.5bn a year over the next decade, including in offshore wind as well as nuclear, and other technologies[19]. There is, however, a limit to how much of this investment can be placed on companies balance sheets. Investors can often be reluctant to provide pre-construction support for large capital projects and have similar reservations about new markets such as energy efficiency. These factors will affect the scale and speed of the transition to a low carbon economy.

The GIB could play a catalysing role, overcoming that caution as well as plugging some of the financing gap, and further act as a "pump prime" to encourage more confidence from other investors in the stability of new markets.

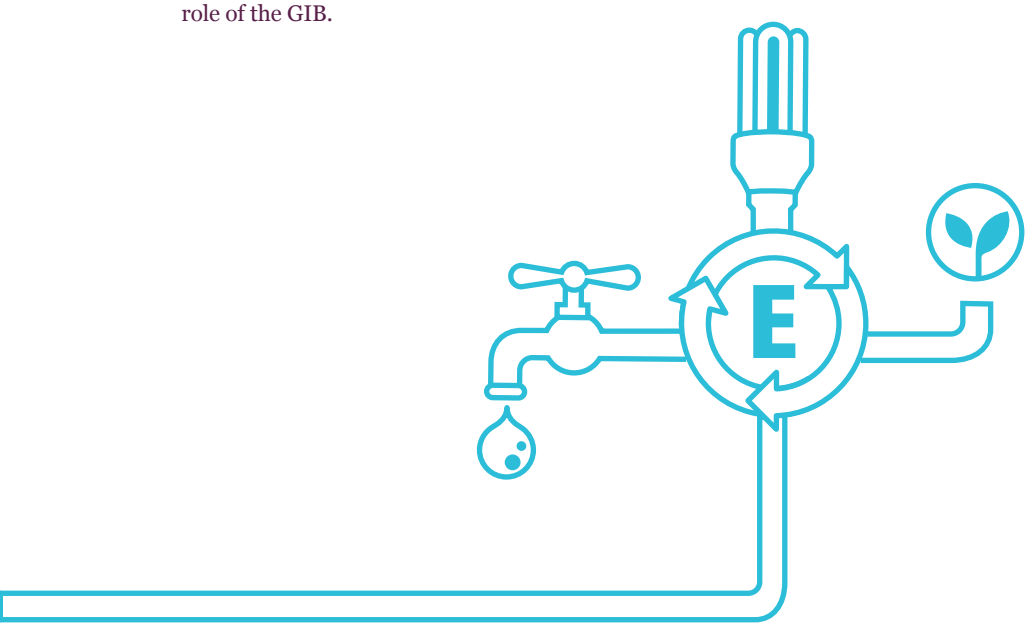
It could do this by providing co-investment with utilities to support large offshore wind projects pre-construction, with the option to release equity after construction for other projects. This builds confidence in the sector enabling private finance to flow at speed and scale.



But meeting our 2020 targets is about more than just generating power through lower carbon sources of energy. Just as crucial is the more efficient use of energy by homes and businesses. A key catalyst to delivering energy efficiency will be the development of the 'Green Deal'. This flagship policy of the new Coalition Government envisages customers being able to access upfront capital to be used to improve the energy efficiency of their homes. Repayments would then be made from the money saved on energy bills. In doing so, we can transform Britain's homes, and the energy companies that serve them.[20]

Here too the GIB could be an important catalyst. To accelerate the take-up of the Green Deal the GIB could provide short-term liquidity financing to kick-start a multi-billion pound securitisation market for Green Deal bonds. At the outset, the GIB would play a vital 'sponsor' role, facilitating financing of the Green Deal via capital markets, building investor and stakeholder confidence in the initiative. Once the Green Deal is established as an investable asset class, it is envisaged that public markets will take over the role of the GIB.

The threat of climate change is bringing about a significant change in the way that energy companies operate. Soon the utility sector will bear little resemblance to the one that we know today. We need to invest in new, cleaner sources of generation, such as offshore wind. And we need to help our customers manage the amount of energy they use, not just consume it. The GIB can help deliver both. At British Gas, we don't view this as a threat to our industry, but an opportunity, and an opportunity which we aim to lead.



18
Dieter Helm, James Wardlaw and Ben Caldecott (2009) *Delivering a 21st Century Infrastructure for Britain (Policy Exchange).*

19
Centrica have built one of the largest offshore wind farms in the world off the coast of Lincolnshire and have been awarded exclusive rights to develop offshore wind projects in the Irish Sea which could see up to 4.2GW of renewable energy being developed and used by 3 million British Gas homes.

20
British Gas' vision is to transform from an energy company that provides services to an energy services company that provides energy; it is already the UK's largest installer of insulation, home renewable technology and has installed over 100,000 smart meters in Britain's homes and businesses.

Bridging the gap? Options for the GIB in offshore wind financing

Ronan O'Regan

Offshore wind plays a make or break role in the UK's renewable energy strategy.

If the UK is to meets its targets of sourcing 15% of all energy from renewable sources by 2020, then it requires a significant expansion in the delivery of renewable electricity from both onshore and offshore wind. Offshore is targeted with delivering around half of the additional 27GW generation capacity required[21]. While there are challenges with respect to scaling up onshore wind, the challenges for offshore wind are even greater.

To date, the investment in offshore wind has been funded largely through utilities' balance sheets. But the UK's power utilities sector are now facing a funding challenge across a wide range of energy infrastructure assets, of which offshore wind is only one. The demand for capital in many UK utilities' overseas operations is also increasing and they are faced with pan European capital allocation decisions across multiple asset types.

There are a number of areas where the GIB can play a role including;

- facilitating a co-ordinated approach to policy and regulation across the energy sector which will help unlock access to capital,
- acting as a single point of public funding to the clean tech sector and aligning this with private sector capital, and,
- bridging the early stage financing 'valley of death' for pre-commercialised clean technologies.

The most obvious role the GIB could play would be to provide development capital to support the construction cost of offshore wind projects. The recent refinancing by Centrica of its Lynn and Inner Dowsing offshore wind farms demonstrated that there is appetite for new equity and project finance in operational assets, thus the priority should be to focus on the construction stage financing.

For example, the European Investment Bank has an asset base of circa €400bn, of which only 10-15% is in the energy sector, but the GIB would have a much larger proportion of its loans in that one sector. Thus the GIB, while it might be part of the funding solution, is not likely to be the sole solution to funding for offshore developers.

This suggests that funding will need to come from commercial lenders in the form of project finance and new equity potentially from pension and annuity funds. The project finance banks have access to capital, but to date have not been comfortable with construction risk. Equity providers would like to invest in this type of project, as the time profile matches their long-term liabilities, and it would diversify their funds away from government bonds, but they currently lack the skills and resources to analyse the risk in offshore wind projects.

PwC[22] estimates that offshore wind alone will require £30- £35bn of capital to deliver the 2020 targets and a significant proportion of this will need to come from new equity and project finance debt. While there are a number of challenges to delivering significant volumes of offshore wind, the most significant is likely to be the availability of finance to support the construction phase of projects, given the constraints on utility finances described above.

However, it is still early days in the definition of the GIB and it is unclear what the capital structure will look like and what level of risk it will be willing and able to take. A formal government guarantee seems unlikely in the current fiscal climate, and even with implicit government backing, the GIB would still need to command a good credit rating on its own account. This would necessitate a prudent balance of risky and less risky investments.

Risk Reduction Measures

So, we assume here that the most valuable role that the GIB could play is to help unlock these sources of private sector capital and so the challenge becomes one of how the GIB could improve the risk profile in offshore wind projects. In a recent analysis of funding options for offshore wind by PwC[23], we examined roles for the GIB in accelerating the roll out of offshore wind. Options include:

- The GIB could develop new, commercially-priced insurance projects that would make the construction phase much more appealing as a potential investment (including, for example, insurance against bad weather, cost over-run, or contractor dispute/failure). Currently offshore wind projects lack fixed price turnkey contracts and projects are developed under a multi-contracting strategy where the utility developer will generally be the one ultimately liable for the interface risk between the contractual packages. New investors will require very strong project management, contingency planning and detailed technical due diligence;
- The GIB could take on the network guarantees that the developers (generally utilities) have to provide and which currently sit on the balance sheet of utilities;
- The GIB could offer credit enhancement for projects in the way monoline insurers have done in the past. This could allow the projects to achieve a credit rating sufficient to attract capital from the pension and annuity funds (in effect offering them a packaged product).

Governance

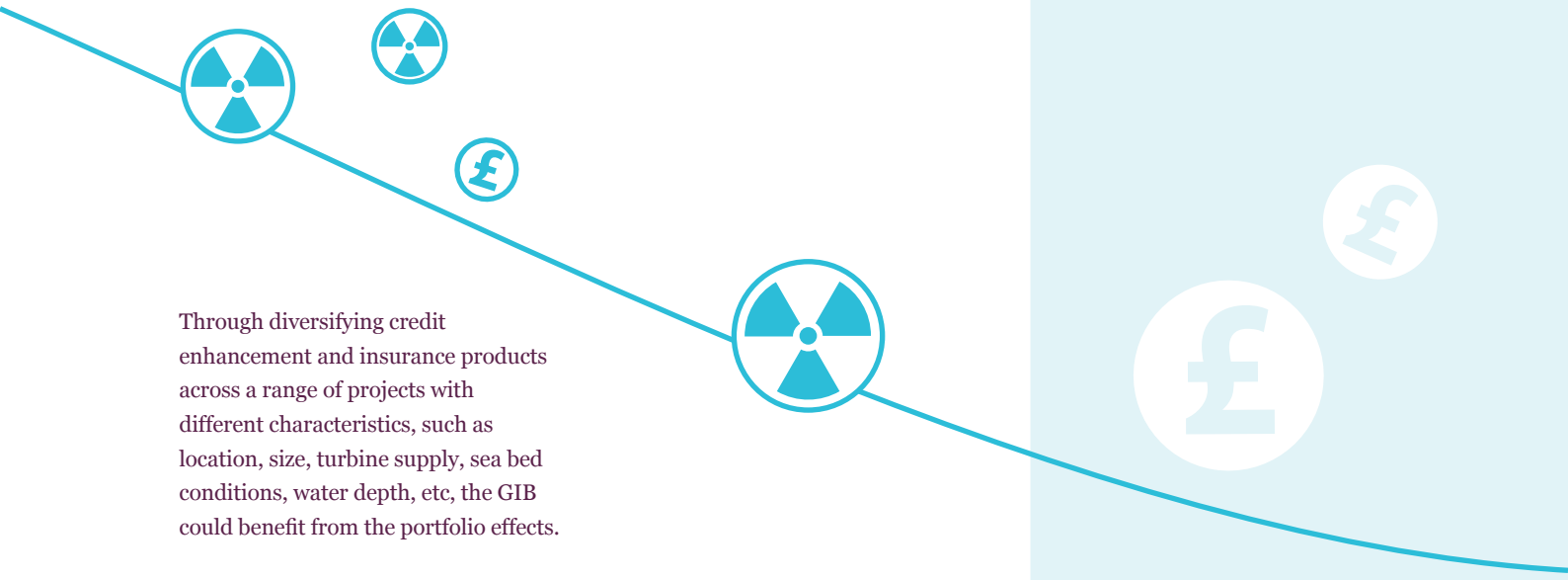
The GIB could also play a wider role in facilitating discussion amongst key stakeholders, providing a centre of expertise, and aggregating risk as stated above (though the latter could prove problematic if that simply meant concentrating a huge amount of similar risks in one institution).

The GIB should be a strong voice in the policy arena, helping to mitigate political risk by, for example, pushing for a more stable and more market-oriented carbon price. It should also have the courage to lobby for the elimination of policies that don't work, rather than merely offering products to help manage round them.

Ultimately, getting over the early stage equity hurdle for developers is what gets developers of any green technology to a bankable deal; it's the riskiest phase of the investment. That's where a green bank could play a part, reducing risks for developers in the construction phase. The equity money is needed in the short term - it can be re-financed by traditional infrastructure investors once the projects are operating successfully. In that way we could see the GIB act more as a green catalyst fund, than a green bank.

21
HM Government (July 2009)

22
PricewaterhouseCoopers (July 2010)
23
Ibid.



Through diversifying credit enhancement and insurance products across a range of projects with different characteristics, such as location, size, turbine supply, sea bed conditions, water depth, etc, the GIB could benefit from the portfolio effects.

The role of the GIB in financing household energy efficiency

Ingrid Holmes

1. Introduction

As the source of over a quarter of UK carbon emissions, the UK's housing stock is a very significant important source of rising energy demand. Tackling energy efficiency is also the cheapest way of delivering carbon emission reductions and energy security. Yet despite the supposed short payback times for householders, many cost-effective opportunities to improve household efficiency are not being taken.

Tangible large-scale investment opportunities to date have been limited and there are very significant barriers to mobilising the estimated £111bn investment required in this sector over the next 10 years[24]. They are:

- *For householders* – a lack of access to information on real-time energy usage and poor opportunities to purchase energy efficiency retrofit packages combined with limited access to and opportunity cost of capital.
- *For energy services providers (including energy utilities)* – existing capital requirements for businesses means there is insufficient capital available to invest in demand reduction[25].
- *For investors* – a perceived limited consumer demand for the energy efficiency products and high transaction costs, reflecting the very fragmented nature of this market.

Addressing these investment issues is key to creating greater demand for energy efficiency retrofits – and the key to delivering installations into homes and creating a thriving energy efficiency market. Without an innovative approach to finance, energy efficiency policies will be left struggling to deliver at scale. Innovative financing structures are therefore crucial to building demand and creating a strong market for energy efficiency products[26].

2. Recent policy innovations – are they enough?

The Government's recent PAYS[27] and Green Deal[28] policy initiatives, once implemented, will go some way to address these issues. But there is still no 'joined up story' of how energy efficiency will be delivered attractively to the consumer to create demand for products. The presumption currently is that the market will deliver but illustrative E3G analysis[29] shows that a purely market-led Green Deal (with a 9% interest rate) would actually increase the average householders fuel bill by 13%[30]. There is therefore a significant risk that the Green Deal appears as a product offering on company websites, but shows very limited actual uptake.

A much stronger focus therefore needs to be placed on demand creation.

1 For householders, new policies to drive demand, such as – in the short term – widely subsidising energy efficiency measures, offering zero or low interest loans, providing tools to enable householders to understand and better manage energy usage (such as smart meters). In the longer term minimum standards on properties will be required to enable a move away from subsidies as the energy performance of properties becomes reflected in their market value.

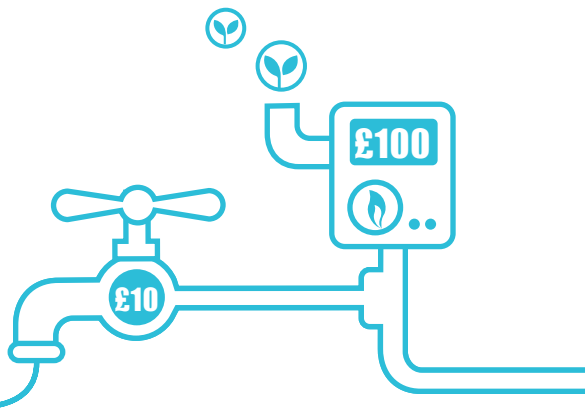
2 For energy services providers, provision of up front finance to householders from a source other than their own balance sheets, or an opportunity to securitise on-balance sheet financing to enable recycling of capital to new households, will be critical.

3 For investors, aggregation of individual household investments and effective risk management to create a financial product with stable, low risk and long term revenues that fits with their portfolio requirements is required.

The first task is mainly about smart and strategic policy making – aimed at pump priming the household retrofit market through time-limited and targeted subsidies and then driving long term demand through standards. The last two tasks – tackling financing barriers for energy services providers and investors – could be undertaken by the GIB.

3. The role of the GIB in financing energy efficiency

Household energy efficiency retrofitting will require many tens of billions in sterling to fund. Institutional investors handle these kinds of values of funds – the trick will be to match these funds to the many millions of small deals valued at the low thousands of pounds and to households with variable credit ratings. This will involve a challenging feat of policy and financial engineering but is not impossible.



A number of different financial structures have been proposed, which have certain characteristics in common.

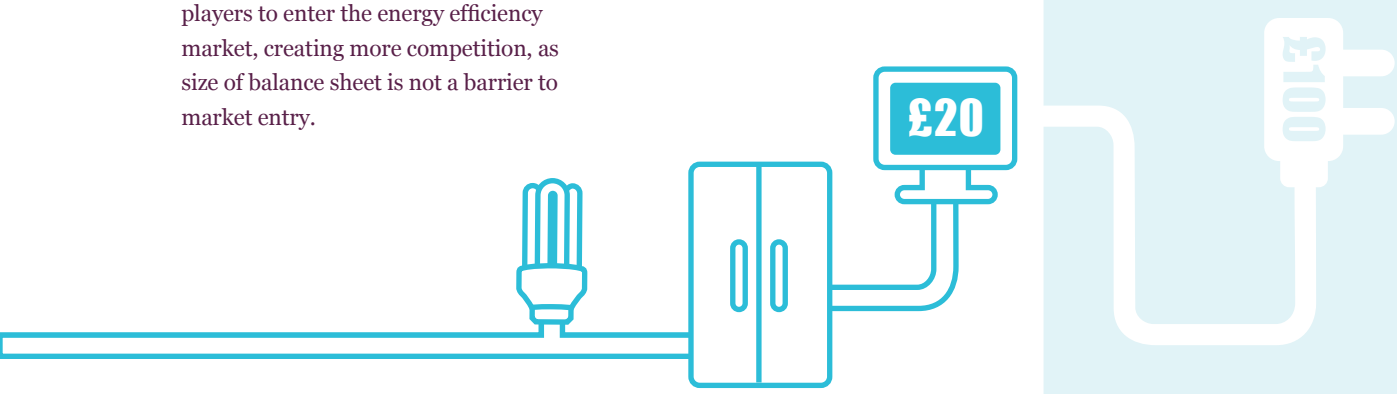
- First, the majority of the up front capital should come from the private sector (institutional investors) and be 'non-recourse' (i.e. protected). The capital can either be raised by the GIB and disbursed to the market through the retail banks (a 'top down' approach) or it can come from company balance sheets and recycled once scale is achieved via asset-backed bonds issued to institutional investors (a 'bottom up' model).
- Second, 'buffer capital', sourced by the Government and held by the GIB, is needed to underwrite risks around non-repayment of loans under PAYS to protect the private capital thereby ensuring sufficient funds can be raised by the GIB to fund the retrofit programme.
- Third, subsidies (reduced interest rate loans or direct grants) are needed to keep costs down for consumers taking up packages – thereby driving demand in the absence of other market drivers such as minimum standards on properties.

Under the 'top down model' proposed above, assuming it has the ability to borrow money at near-government rates, the GIB would be able to raise lower cost capital from the institutional investors to disburse to the market. This approach – which would see the GIB as a wholesaler of capital and disburser of subsidies – has the advantage that it enables smaller players to enter the energy efficiency market, creating more competition, as size of balance sheet is not a barrier to market entry.

The 'bottom up' approach will limit energy efficiency market players to those with large balance sheets. In this instance the GIB would be required to perform the role of technical advisor, including playing a facilitating role in structuring and rating the first "Green Deal bonds" and to provide, for a charge, short-term funding facility to get the Green Deal fund up to a size that allows securitisation[31].

To 'oil the machine' Government would need to provide public funding for the buffer capital to protect private sector investors and subsidies to drive demand in the first instance. E3G analysis[32] indicates an £11bn/year capital 'top down' programme that provides loans at 3% to consumers could require a subsidy of around £2bn per year. However, we would not expect the entire programme to receive this level of support. In the early years it would be advisable to deploy such a subsidy to help drive the market by creating demand, but it could be tapered down year on year to be replaced by the longer term market driver of mandatory minimum standards on properties. For context, the current energy efficiency programme CERT will have cost over £3bn from 2008 to 2011.

The GIB has a transformative role to play in delivering an 'at scale' UK energy efficiency programme. It is one of the key missing components needed to make the Green Deal effective, delivering not only warm homes but also emission reductions, increased energy security, competitiveness and the creation of new jobs in the economy.



24
Sustainable Development Commission *(2009) A Sustainable New Deal*

25
For energy utilities, for example, supply side decarbonisation is a priority.

26
Holmes, I. (2010) Financing energy efficiency: bringing together the green infrastructure bank, green bonds and policy.

27
PAYS attaches loans for energy efficiency retrofits to the home not the occupant, enabling the loan to be spread over long periods (to 25 years) and to pass from householder to householder.

28
The Green Deal entitles householders to access to £6.5K to spend on retrofitting their homes. As yet, it is not specified where this capital will come from.

29
Forthcoming E3G paper on energy efficiency financing.

30
By way of comparison, a GIB-led Green Deal financed at 5.2% could see consumers save 18% on their fuel bills.

31
The minimum bond size could be in the region of £250m–£500m.

32
Forthcoming E3G paper on energy efficiency financing.

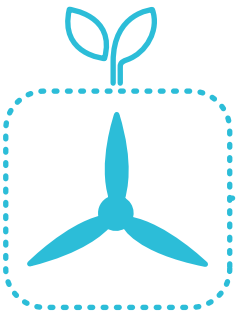
Big is not always beautiful

Jo Butlin

In putting forward detailed proposals for a GIB, the Government has a real opportunity to provide the framework to accelerate the development of small and medium scale renewable plants as well as large scale projects.

There are numerous SME energy projects, both commercial and community based, which have been consented but cannot move forward due to lack of credit finance. Small projects have struggled to get engagement from the banks, let alone raise necessary finance. The banks continually steer clear of complex technologies at the small end of the market and where they do engage charge prohibitively high due diligence costs.

Each project may be relatively modest in output, but with a far higher number of potential developers and project sites, the aggregate results can plug a vital gap in our energy supplies – at a far quicker pace – than the larger, slower projects favoured by utility developers.



Each one of these projects acts as a multiplier in the wider economy, helping to address not just the energy crisis but the economic one too. In terms of skills and resource, smaller, less complex projects tend to have simpler supply chains providing the added benefit of effective utilization and development of UK skills.

To realise these benefits, any proposals relating to the GIB must be in conjunction with structural review of the energy market. Without this, the inevitable consequence is a focus on large scale utility projects where innovation and speed to market are hampered by complex supply chains and politicised decision making processes.

Our reliance on the large utilities to date has failed to achieve the necessary acceleration of renewable generation investment in the UK. DECC's recently published statistics[33] show renewable generation grew from only 4.1% to 6.7% of the UK's total output since 2005. Intermittent, small scale renewable generation plants have not suited the large utility's vertically integrated models which rely on the management of a few, large, baseload plants. Therefore, development has not been a priority.

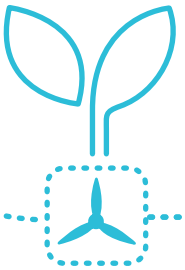
New entrants, such as SmartestEnergy, have the proven ability to facilitate smaller scale generators access to the market. The company already supports more than 280 renewable generation sites and continues to grow apace. Demand is proven, but to date has been marginalized in government policy and focus.

As the biggest consumer of electricity in the UK, the industrial and commercial sector should be given the encouragement to invest in on-site renewable generation. These companies face potential price increases of more than 100% by 2020 as a consequence of delivering transformation of the UK energy infrastructure. The motivation is certainly there to seek their own generation alternatives provided the commercial rationale and a stable investment framework can be guaranteed.

There are positive signs, as shown by the recent announcement allowing local authorities to sell surplus generated energy back to the grid. Similar innovation in the whole business sector could have a transformational impact.

The 'big is beautiful' stance is often defended by saying that to effectively manage their resources investors, banks focus on larger projects. True. But then shouldn't the role of a publicly funded GIB be to bridge this gap and ensure that these projects do get delivered and overcome the financial barriers facing smaller scale investors?

No single sector can tackle this alone. If we are to truly decarbonise our energy supply, we must accelerate the decentralisation of ownership and generation first.



Kick-starting community energy delivery

Richard Wilcox

The creation of a GIB could play a leading role in assisting the market in funding a range of renewable energy projects. Whilst in the long term one of the major benefits of GIB could be to facilitate the restructure of the capital markets to enable a more symbiotic relationship between the commercial banks and the pension funds, in the short term the GIB is also ideally placed to leverage low risk funding to deliver quick wins in the sub £20m market, in partnership with established lenders.

The GIB should neither crowd out nor compete with these existing markets but rather support existing funding to go further and bolster the gaps in current market provision. How the GIB is structured is ultimately key to its ability to make a difference and the right kind of market interventions and clarity from government will help gain investor confidence.

CFS is one of very few funders active in the sub £20m category. Smaller projects tend to offer less attractive economic returns for the larger banks and investors who focus purely on financial returns as they involve the same transaction and diligence costs as large projects, require the close attention of a limited pool of qualified staff, yet provide similar returns. The GIB could act to provide support to these schemes to either reduce risks or decrease relative transaction costs; thereby improving risk adjusted returns to the banks.

The Social Banking Unit in The Co-operative Bank has established itself in this SME and community-scale market with advice and expertise being offered in parallel to financial support to help smaller projects navigate their way through inception to delivery. A key barrier for the success of these projects is the bureaucracy created by various government funded advice and support functions. The GIB could play a lead role in combining these services and creating a one-stop shop for small-scale projects.

The creation of the GIB also focuses minds on the other barriers that often prevent schemes coming forward – namely planning delays, basic legal advice and prohibitive connection costs. It is essential that the relevant government departments tackle this challenge together. As part of the government's 'Localism' agenda, there is a strong case for a streamlined planning process for community-scale and community-owned energy schemes.

The GIB is also well placed to link across the various energy challenges and initiatives such as energy efficiency. Within the public sector, schemes can exist that both generate and save energy such as CHP and district heating – easing the procurement process will help in this regard as will clarity on the RHI and other support mechanisms.

The GIB could make a vital difference to community energy efficiency and generation schemes by providing a pre-development equity fund to support schemes through their early stages, which often prove the biggest barrier due to the relative weight of upfront costs. De-risking this process need not place a strain on any public finances but will enable funders to provide the core funding to small groups that would otherwise have no access to equity capital.

There is certainly a role for the GIB to focus on targeted market interventions. However, it must not be created with too narrow a remit if we are to allow SMEs and communities to help both themselves and the UK as a whole to deliver energy security and meet our shared stretching carbon and energy targets.

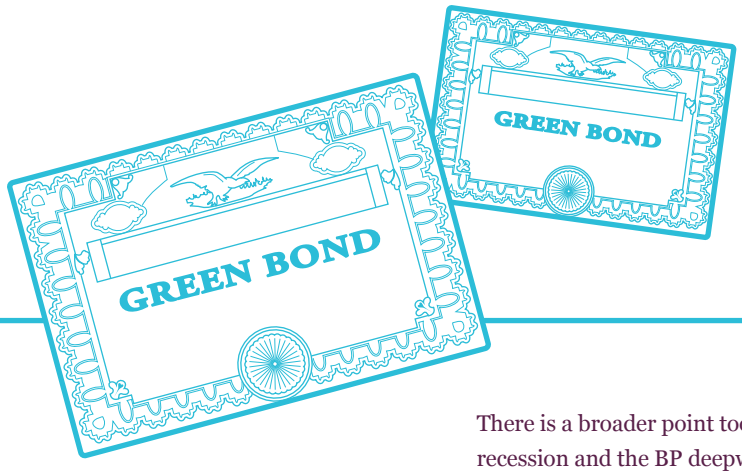
33
DECC (July 2010) *Digest of UK energy statistics 2010.*

Section Three: Capitalisation and Funding

Breaking our dependence on the high carbon economy

James Cameron & Ben Caldecott

The GIB Commission report[34], introduced by Bob Wigley (page 10), demonstrates the massive scale of investment needed to green the British economy - estimated at £550 billion by 2020 – and the financial, regulatory and technological barriers that must be overcome. It finds that a number of the market failures and barriers to investment could be effectively addressed by the establishment of a GIB. Such an institution, transcending the political cycle with its profits re-invested for the public good, could help build the UK's low carbon future by investing in the technologies and infrastructure essential for keeping the UK economy competitive and successful.



To achieve this, the Government must ensure the bank has sufficient capitalisation and funding to sustain its ongoing operations. One way the GIB would raise new additional finance for low carbon projects is by structuring the issuance of long-dated and asset-backed bonds, with their proceeds ring-fenced for investment in tangible low carbon infrastructure. These would be issued at sufficient scale, so as to ensure that they were liquid and properly rated. As a result, they would be attractive to a range of investors, especially large pension funds, who are looking to diversify but still need good financial returns over the longer term.

By offering low but stable rates of return over 15-25 years, the bonds would match the life of the assets into which the funds would be flowing. These 'green' bonds would be a sensible way to finance the needed long-term investment in tangible assets that society should have to improve the quality of our lives. Without these instruments, the UK will be unable to deliver the scale of investment required to transition successfully to a low carbon economy.

There is a broader point too – the recession and the BP deepwater horizon crisis have highlighted the fact that our pension funds (and pensions) are now addicted to the dividends paid out by high carbon sectors, especially oil and gas. In a carbon constrained world, this is an unsustainable and undesirable model. To re-balance investment portfolios, we need to improve the attractiveness of low carbon investments relative to high carbon ones. The creation of a GIB and new products, such as green bonds, are critically important steps towards a resolving the current undesirable imbalance.

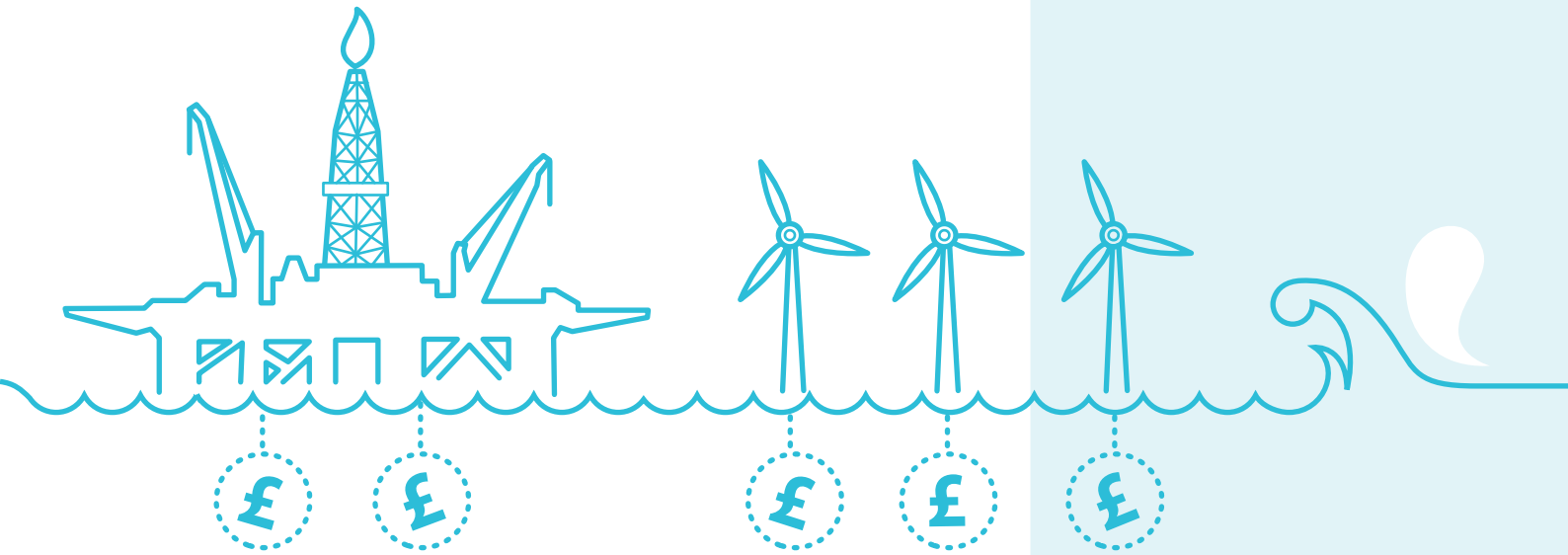
In addition to structuring green bonds to access the capital markets, the GIB could play a vital role in unlocking project finance for key parts of the UK's low carbon infrastructure. For example, the UK is not on track to deliver the necessary scale of investment in Round 3 offshore wind to meet our renewable energy targets. This is partly driven by the fact that Round 3 projects are perceived to be riskier, because they are further out to sea, in deeper water and use new technologies.

These risks and the lack of a transactional record means that banks are reluctant to lend to these projects. To unlock project finance for these developments and overcome this problem, the GIB could co-invest and/or provide risk mitigation products to projects, which would then enable banks to lend. This would be an important intervention that could make all the difference to projects that are currently stuck.

In terms of initial capitalisation, there are a number of possible options despite the current fiscal crisis. Alongside private sector capital and the sale of government owned assets, Phase 3 of the EU Emissions Trading Scheme (EU ETS) offers significant potential. Across the EU, companies and industries that pollute are finally having to pay for the greenhouse gases they emit. According to the Committee on Climate Change, between 2012 and 2020 the UK Government is set to raise £40 billion from the auction of emissions permits[35]. After 2020 yet more should flow into government coffers. However, it will only be temporary; as we successfully decarbonise the economy, the amounts are likely to tail off. That means that Britain must be quick in deciding what to do.

The process of creating a GIB that would work over the long term for the public good should start immediately. Given the scale of investment needed to rebalance our economy, protect our planet and keep us internationally competitive, the costs of inaction are significant. By creating a GIB and adequately capitalising it, we would be taking a conscious decision to do what is best for Britain over the long-term.

With the excesses that led to the credit crunch and the current fiscal situation, people are crying out for this longer term and more sustainable approach to finance. This move would also create jobs and new industries at a critical time to sustain the UK's recovery. This decision would make a significant and immediate difference, but it would also create a goose that was able to lay golden eggs for many generations to come.



It would be a mistake to use all the money to plug the structural budget deficit when we need to renew our economy. The GIB provides exactly the institution needed to marshal the revenues from emissions trading. If it was capitalised with a sizeable proportion of the £40 billion from the auctions up to 2020, it could conceivably unleash hundreds of billions of pounds more in low-carbon investment.

34
GIB Commission (June 2010)
Unlocking investment to deliver Britain's low carbon future.

35
James Cameron (11th April 2010)
The Times: Use polluters' cash to create a green bank.

Making GIB investments attractive for institutional investors

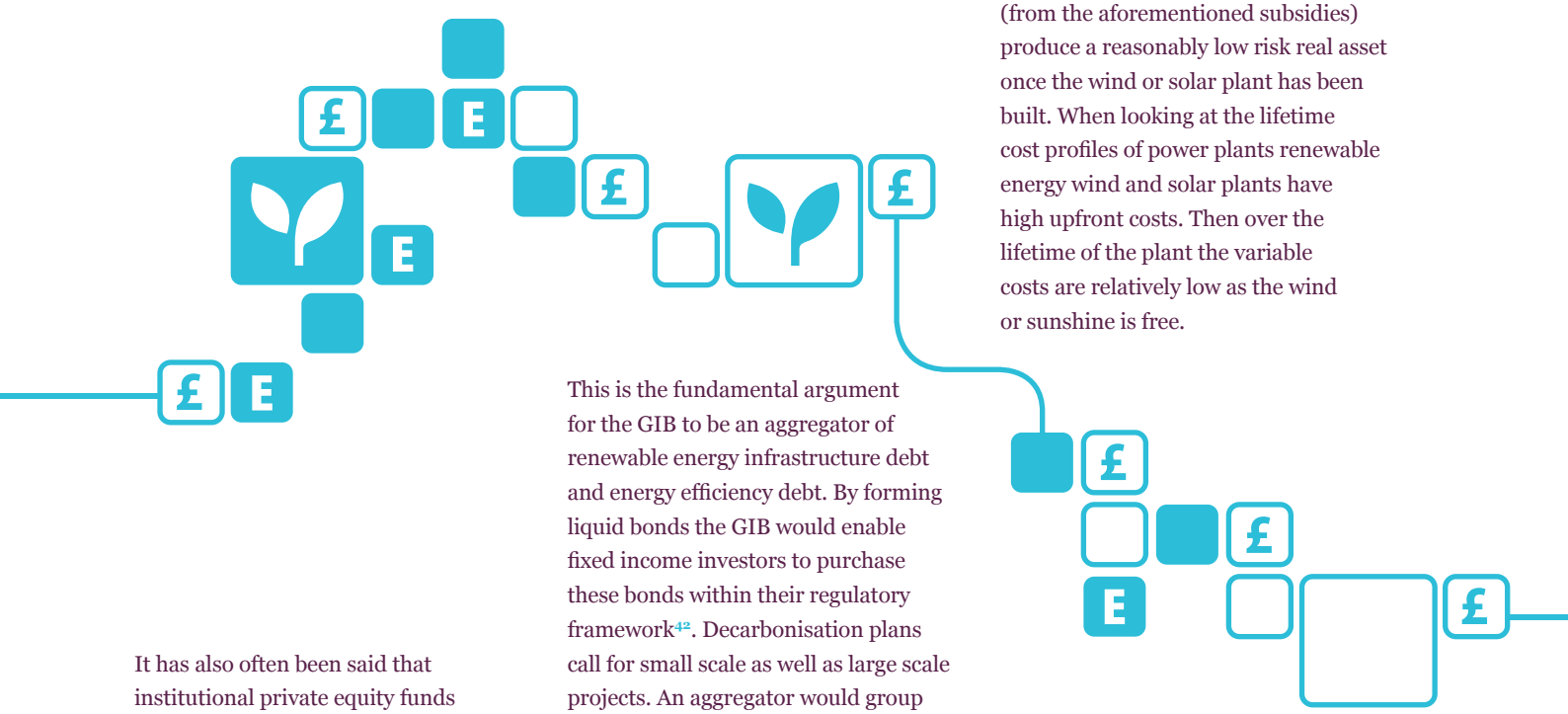
It is frequently stated that institutional investors hold significant capital that could be employed to help finance the capital requirements of moving from a fossil fuel economy to a low carbon economy.

In 2008 the total assets under management of UK domiciled institutions was estimated to be £2,781bn[36]. It is important to note however that the vast majority of this was in equities and bonds. In, for example, Defined Benefit Pension Schemes 49.8% was in equities and 34.7% was in bonds[37]. UK domiciled insurance companies investments were 43% in bonds and similar securities, 28% in equities and 12% in unit trusts[38].

Ofgem has estimated that the combined power and heat sector needs to make investments approaching £200bn over the coming decade[41]. Investors must diversify their risks so a typical pension scheme will only be able to commit a small part of their allocation to decarbonisation infrastructure. Therefore, if the role of the GIB is to maximise institutional investor participation in decarbonisation, it should create bonds rather than private equity investment products. As a rough example of scale, if we assume circa 40% of UK domiciled institutional investors £2,782bn is allocated to fixed income, every 1% of this money would represent £11bn. This represents a meaningful contribution to the estimated capital required.

Aggregation like this means very large issuances of bonds can be created leading to liquid bonds listed on the major bond benchmarks. As circa 85% of fixed income investors are benchmark investors, "green bonds" created in this way and included on major bond benchmarks will result not in niche instruments but mainstream bond investments.

So what part of project finance is suitable for fixed income investors? Feed in Tariffs (FITs) and Renewable Obligation Certificates (ROCs) subsidy systems give renewable energy assets a reasonably predictable yearly income stream for over a decade. Mature technologies such as wind and solar are quite simple machines and together with a predictable income stream (from the aforementioned subsidies) produce a reasonably low risk real asset once the wind or solar plant has been built. When looking at the lifetime cost profiles of power plants renewable energy wind and solar plants have high upfront costs. Then over the lifetime of the plant the variable costs are relatively low as the wind or sunshine is free.



This is the fundamental argument for the GIB to be an aggregator of renewable energy infrastructure debt and energy efficiency debt. By forming liquid bonds the GIB would enable fixed income investors to purchase these bonds within their regulatory framework[42]. Decarbonisation plans call for small scale as well as large scale projects. An aggregator would group the debt from multiple projects to produce large bonds with significant liquidity. The GIB would be a conduit to enable institutional investors to finance renewable energy projects in a way that fits their mainstream business i.e. though an asset allocation to GIB liquid bonds rather than through private equity or project financing investments.

It has also often been said that institutional private equity funds are best placed to invest in renewable energy infrastructure, however in the Defined Benefit Pension Schemes asset allocation to private equity investments only accounted for 2.5% of total investments or £25bn in 2009[39]. It is estimated that of new global private equity investment between 2003 and 2009, 4.5% was invested in infrastructure[40].

The planning and build out stages of a renewable energy plant are when the project risk is high. Once the plant enters stable production the risks are significantly lower as the plant amortizes the debt used to finance the build out stages over its lifetime.

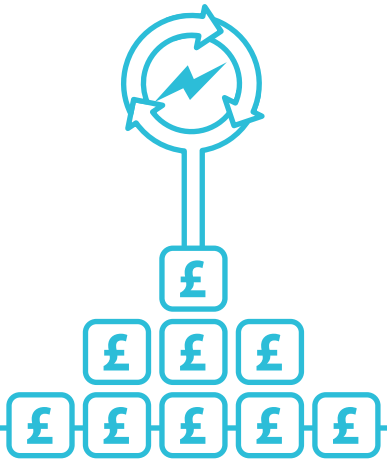
However there are significant unknowns in the financing of newer technologies such as offshore wind, some biomass and carbon capture and storage. In order to debt finance these early stage technologies, some form of government guarantee is likely to be needed. In fact similar government financial institutions to the proposed GIB: Oseo Group of France, KfW of Germany and ICO of Spain all have some form of government guarantee covering all or part of their functioning[43]. A government guarantee over the bonds will significantly decrease the bond yields and make them close to the yields of government debt.

A recent example of an asset backed bond deal is the Terra-Gen Wind Farm in California that was financed by a bond issuance as well as bank debt on 22 July 2010[44]. The total capital expenditure of this project was $1.2bn. The large scale of this project was one of the enablers of the bond issuance, however the liquidity of even this project bond will be considered quite low by bond market investors. The bond finance is interesting, as in the build out phase the issuance was $580m, the rest being financed by bank loan. The bond finance is the more senior and therefore lowest risk. When the wind farm is operational and therefore of lower risk it is intended that the bank finance will be refinanced by increasing the issuance of bonds.

A critical point to learn from the financial crisis is that the assets put into the vehicle or bank must comply with robust rules. If you put bad assets into the vehicle you get bad bonds out. In general, to increase the confidence of bond buyers, the aggregation part of the GIB should be constructed with the following principles in mind:

- Simplicity – bonds should be produced where there is clarity that they are the senior bond investment.
- Transparency – a clear lending template should be put in place for banks and fixed income investors to refer to.
- Large Size – bonds should be large and liquid enough for bond benchmarks

If these principles are adhered to, the GIB could play a significant role in driving forward low carbon investments in the UK by creating investments suitable for institutional investors.



36
AXA IM Research

37
WM Performance – UK Pension Funds – Annual review 2008

38
Association of British Insurers 2008

39
NAPF, HgCapital Research – Presentation to Responsible Investor Clear Investor Conference 2010

40
NAPF, HgCapital Research – Presentation to Responsible Investor Clear Investor Conference 2010

41
PricewaterhouseCoopers (July 2010) *Meeting the 2020 renewable energy targets: Filling the offshore wind financing gap.*

42
Solvency 2 is the new regulator framework being introduced for European institutional investors

43
Xavier Lecacheur (June 2010) *What Model for a GIB? A discussion paper on experiences from France, Germany, Spain and a few others.*

44
www.terra-genpower.com

Introducing green individual savings accounts: next steps

Emma Howard Boyd

Institutional investors may provide the majority of funds for the GIB, but retail investors could also prove an important source of funding. Indeed, the public's ability to participate in a GIB is in many ways as important as any funding they may bring.

The Green Individual Savings Account (ISA), first proposed in a speech by George Osborne in February 2008, is a new savings product in which all the funds invested would be used to help make our economy greener. Introducing a Green ISA could be a cost effective way to give everyone a chance to be an investor in our low carbon future. Based on Treasury figures, a £3,000 increase in the tax-free saving limit would cost less than £50 million, and a £5,000 increase in the tax-free saving limit would cost less than £70 million[45].

Recent research by UKSIF, the sustainable investment and finance association, indicates that nearly half of people in the UK would like the opportunity to make both money and a positive difference to the world around them when investing their money[46]. This suggests that Green ISAs could be a popular choice.

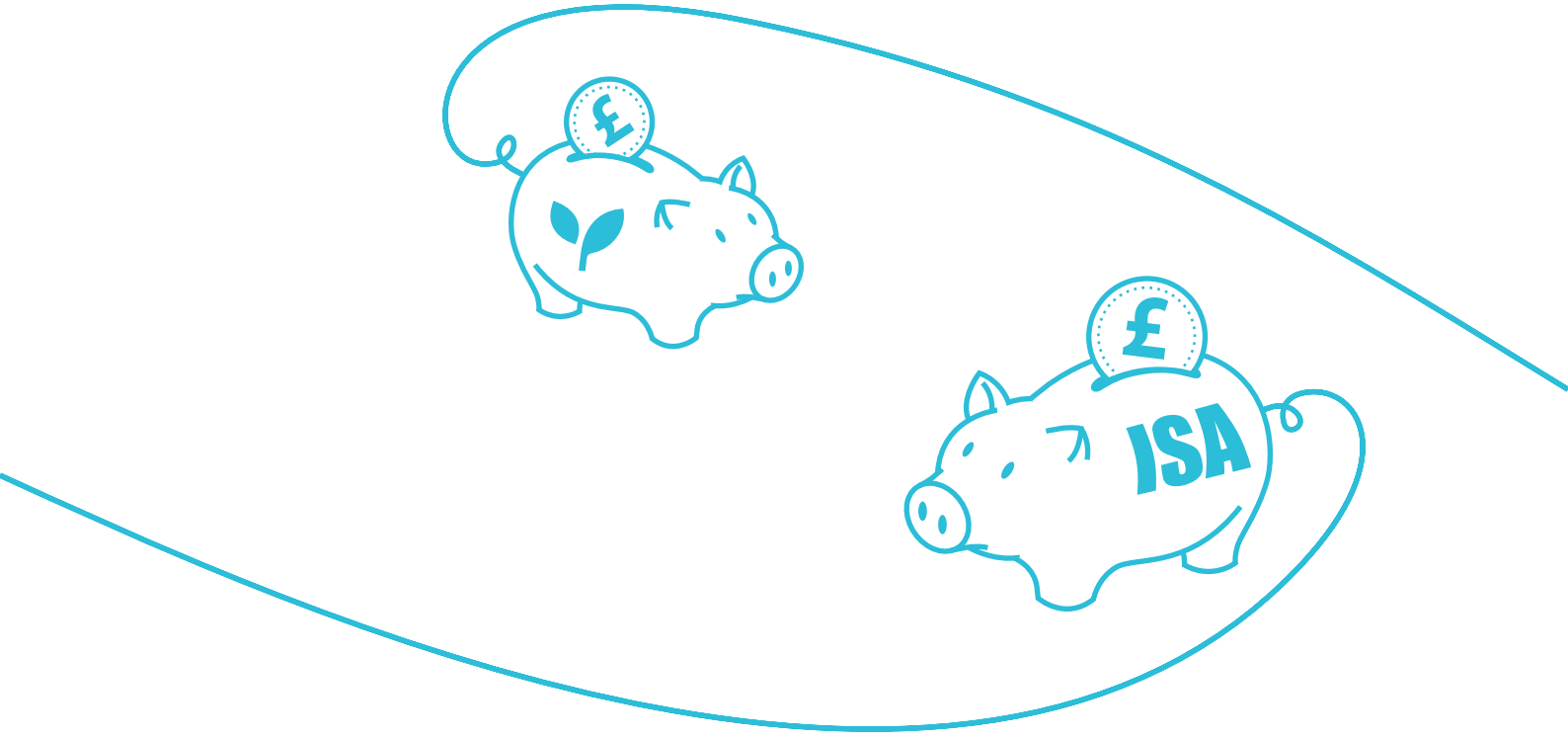
Current ISA structure

ISAs were introduced on 6th April 1999 to provide a tax efficient environment for savings. Over 18 million people – around one in three adults – now have an ISA. More than £270 billion is estimated to be held in them, with some £45 billion being subscribed by individuals in 2009/10[47].

From 6th April 2010, ISA limits for every adult rose to £10,200, of which up to £5,100 can be invested in a cash ISA. The previous Government had announced that from April 2011 the ISA limits will increase annually with inflation.

The stocks and shares component of an ISA can include a wide variety of financial instruments including:

- shares and corporate bonds issued by companies listed on recognised stock exchanges;
- gilt edged securities ('gilts');
- a range of different collective investment vehicles including UK authorised unit trusts, open ended investment companies (OEICs), fund of funds schemes, approved investment trusts and Undertakings for Collective Investment in Transferable Securities (UCITS) funds based elsewhere in the European Union (similar to the UK authorised unit trusts and OEICs)[48].



Proposed green/low carbon ISA

A Green ISA could take many forms. Collective investment funds such as unit trusts and OEICS are already available in over a dozen sectors classified by the Investment Management Association.

There are two broad approaches to green investing: a) funds that invest in *green/low carbon solutions companies* – often called "clean/green technology" funds or "climate change" funds; and b) funds that invest in companies that are *reducing their carbon profile* – often known as "low carbon" funds. For both types of companies, funds are available which are either *actively managed* (where the fund manager makes specific investments with the goal of outperforming an investment benchmark index), or *passively managed*, (where the fund replicates as closely as possible the investment weighting and returns of that index). Also, exchange traded funds (ETFs) are available to track some green/low carbon indexes. For example, there are ETFs for clean energy companies, water-related businesses and large companies with lower carbon emissions than their industry peers.

It will be important that the criteria for eligibility of a potential fund be devised in such a way as to encourage innovation, and governed by an expert advisory committee. The test for eligibility should take into account how a fund delivers low carbon outcomes as well as the prospects for a financially attractive return over the expected timescale.

Also being proposed are several different types of financial instruments – green bonds, carbon bonds or climate bonds, which could also be held within a Green ISA structure. As more details of new instruments become available, it will be important to ensure that the ISA regulations allow these instruments to be held within a Green ISA. Interestingly, HSBC launched an innovative Vaccine Investment ISA in 2009, made possible by changes to the ISA regulations. The launch of Green ISA could be a fairly straightforward next step.

45
GIB Commission (June 2010) *Unlocking investment to deliver Britain's low carbon future.*

46
UK SIF (11th February 2010) *Ethical Investment on the Rise: ISA Opportunity.*

47
www.hmrc.gov.uk/stats/isa/table 9-6-onwards.pdf

48
A full list can be found in the report "Green Individual Savings Accounts: An Independent Report to the Conservative Party" (November 2009) prepared for the Conservative Party by an expert working group led by Emma Howard Boyd of Jupiter Asset Management.

Aldersgate Group

Providing the economic case for high environmental standards.

Who We Are

The Aldersgate Group is a high level coalition of progressive businesses, environmental groups and MPs who believe that high environmental standards will be a major part of future economic growth and international competitiveness.

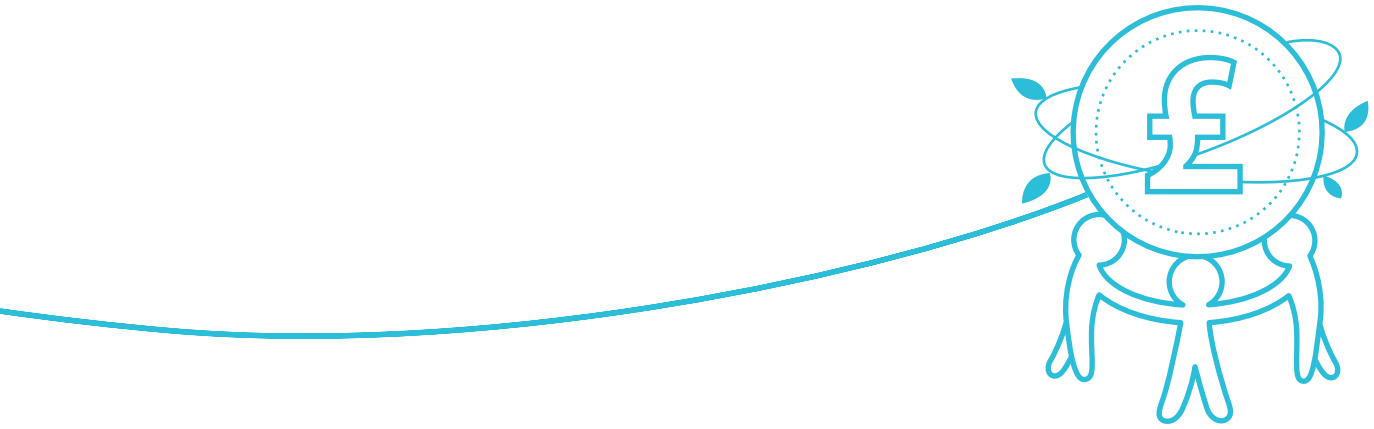
By presenting objective evidence based on the diverse experience of our members, we promote the case that there is no inherent contradiction between regulating for high environmental standards at the same time as maintaining economic growth and stimulating wealth creation. Quite the reverse: no economic policy which sacrifices environmental quality can succeed in the long term.

Our Aim

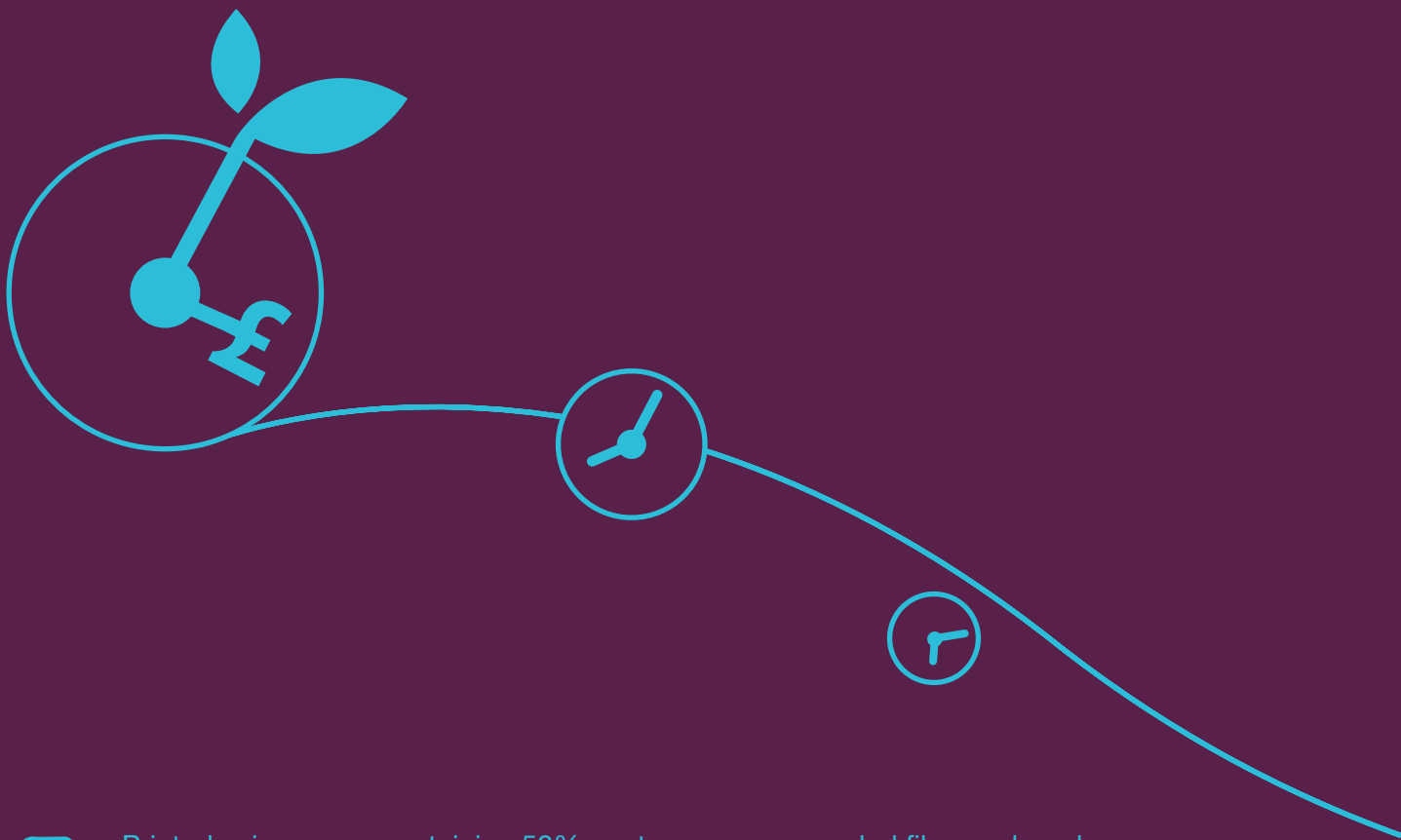
To engage actively with government and other key decision makers to contribute to the future development of UK economic, environmental and sectoral policies, as well as providing a distinct voice that advances the better regulation and sustainability agendas.

Key Messages

1. Our long-term economic success depends on a healthy environment and the sustainable use of natural resources.
2. At the company level, good environmental performance translates to tangible economic benefits and is a major source of competitive advantage.
3. Better environmental regulation creates new business and employment opportunities in a fiercely competitive global marketplace.
4. Policy appraisals must accurately assess environmental costs and benefits.
5. The better regulation agenda must not lose sight of the need to maximise outcomes in the drive to reduce unnecessary costs.




BANK



Printed using paper containing 50% post consumer recycled fibre and made with 100% ECF (Elemental Chlorine Free) wood pulp, that is fully recyclable and sourced from carefully managed and renewed commercial forests.