



House of Commons  
Environmental Audit Committee

---

# Green finance: mobilising investment in clean energy and sustainable development

---

**Sixth Report of Session 2017–19**

*Report, together with formal minutes relating  
to the report*

*Ordered by the House of Commons  
to be printed 1 May 2018*

## Environmental Audit Committee

The Environmental Audit Committee is appointed by the House of Commons to consider to what extent the policies and programmes of government departments and non-departmental public bodies contribute to environmental protection and sustainable development; to audit their performance against such targets as may be set for them by Her Majesty's Ministers; and to report thereon to the House.

### Current membership

[Mary Creagh MP](#) (*Labour, Wakefield*) (Chair)

[Colin Clark MP](#) (*Conservative, Gordon*)

[Dr Thérèse Coffey MP](#) (*Conservative, Suffolk Coastal*)

[Geraint Davies MP](#) (*Labour (Co-op), Swansea West*)

[Glyn Davies MP](#) (*Conservative, Montgomeryshire*)

[Mr Philip Dunne MP](#) (*Conservative, Ludlow*)

[Zac Goldsmith MP](#) (*Conservative, Richmond Park*)

[Mr Robert Goodwill MP](#) (*Conservative, Scarborough and Whitby*)

[Caroline Lucas MP](#) (*Green Party, Brighton, Pavilion*)

[Kerry McCarthy MP](#) (*Labour, Bristol East*)

[Anna McMorrin MP](#) (*Labour, Cardiff North*)

[John McNally MP](#) (*Scottish National Party, Falkirk*)

[Dr Matthew Offord MP](#) (*Conservative, Hendon*)

[Dr Dan Poulter MP](#) (*Conservative, Central Suffolk and North Ipswich*)

[Joan Ryan MP](#) (*Labour, Enfield North*)

[Alex Sobel MP](#) (*Labour (Co-op), Leeds North West*)

### Powers

The constitution and powers are set out in House of Commons Standing Orders, principally in SO No 152A. These are available on the internet via [www.parliament.uk](http://www.parliament.uk).

### Publications

Committee reports are published on the Committee's website at [www.parliament.uk/eacom](http://www.parliament.uk/eacom) and in print by Order of the House.

Evidence relating to this report is published on the [inquiry publications page](#) of the Committee's website.

### Committee staff

The current staff of the Committee are David Slater (Clerk), Nina Foster (Second Clerk), Nicholas Davies (Committee Specialist), Ian Cruse (Committee Specialist), Ameet Chudasama (Senior Committee Assistant), Baris Tufekci (Committee Assistant), Henry Marsh (Committee Researcher), Jennifer Maddalena (Committee Researcher) and Sean Kinsey (Media Officer).

### Contacts

All correspondence should be addressed to the Clerk of the Environmental Audit Committee, House of Commons, London SW1A 0AA. The telephone number for general enquiries is 020 7219 5776; the Committee's email address is [eacom@parliament.uk](mailto:eacom@parliament.uk).

# Contents

---

<b>Summary</b>	<b>3</b>
<b>1 The Investment Challenge</b>	<b>5</b>
The investment challenge	5
Meeting the UK's carbon budgets	6
Policies to decarbonise electricity	7
Reduction in clean energy investment	9
Policy changes	10
Cost of renewables	11
Disruption of the GIB sale and fall in EIB funding	13
<b>2 Policies to secure investment</b>	<b>15</b>
The Clean Growth Strategy	15
Evaluating the Strategy	16
Policy mechanisms to deliver low carbon investment	18
Reducing risk for renewable energy investors	19
Carbon pricing	20
<b>3 Development finance</b>	<b>23</b>
The Green Investment Bank	23
Negative impacts of the sale	23
Disruption of the sale process	24
International focus of the GIG	25
Addressing market failures	26
European Investment Bank funding	29
The UK's future relationship with the EIB	29
Replacing GIB & EIB funding	30
Development finance at a local level	31
Utilising Dormant Assets	32
<b>4 Green Financial Products</b>	<b>33</b>
Green mortgages	33
Green bonds	34
Standards for green bonds	36

<b>Conclusions and recommendations</b>	<b>40</b>
<b>Formal minutes</b>	<b>44</b>
<b>Witnesses</b>	<b>45</b>
<b>Published written evidence</b>	<b>46</b>

## Summary

To make the swift transition to a sustainable, low-carbon economy, billions of pounds of infrastructure investment is needed in clean energy, transport, homes and industry. This will require public and private finance, but given the scale of the challenge, harnessing private sector capital will be crucial.

The UK has made significant progress in redirecting investment towards cleaner sources of power since the Climate Change Act was passed in 2008. We have switched from coal to gas, offshore wind and solar installations have multiplied and the cost of renewable energy is falling rapidly. The proportion of our electricity generated from low-carbon sources has doubled between 2009 and 2017, to reach a record 50% last year. This has helped to put the UK on track to meet our carbon budgets up to 2022.

Despite this progress, there are worrying signs that investment may have stalled in the last two years, threatening our ability to meet our fourth (2023–2027) and fifth (2028–2032) carbon budgets between 2023–2032. Recent figures show that clean energy investment has fallen dramatically since 2015. In cash terms it fell by 10% in 2016 and by a further 56% in 2017. Annual clean energy investment in the UK is now the lowest it has been since 2008 and the rate at which we are installing new renewable capacity is slowing.

The falling cost of generating electricity from wind and solar power means that we can now secure clean energy capacity at lower prices, which to some extent may have cushioned the impact of cash reductions. However, it also looks likely that a series of sudden changes to low-carbon energy policy in 2015 undermined investor confidence and led to a reduction in the number of projects in development. Disruption from the privatisation of the Green Investment Bank and a reduction in European Investment Bank lending following the vote to leave the EU may have also played a part in the investment dip that we are seeing.

We are encouraged by the cross-Departmental ambition of the Government's Clean Growth Strategy. However, it will still lead to a shortfall in meeting our upcoming carbon budgets, even if all its policies are delivered in full. Ministers must urgently plug this policy gap and publish a delivery plan to secure the investment needed to meet the fourth and fifth carbon budgets. Given that these are now only a few years away, it is imperative that the Government responds to the Green Finance Taskforce recommendations promptly and provides greater clarity on how it intends to deliver the Clean Growth Strategy by the 2018 Budget. The use of fixed-price contracts will be key to ensuring a pipeline of low-carbon energy projects over the coming years and a steadily rising carbon price will be necessary to achieve our carbon budgets in the 2020s and 2030s. Given the disruption and uncertainty of the last three years, the Treasury must ensure its attempts to keep costs down do not exacerbate the recent fall in clean energy investment.

We do not accept the Government's assertion that the market failures the Green Investment Bank was set up to address have been resolved. While significant progress has been made in decarbonising power, considerable policy and investment challenges

remain in decarbonising transport, domestic heating and industry. What is more, the market is failing adequately to price and protect natural capital and is not stemming biodiversity and habitat loss.

We are pleased to have secured protections for the Green Investment Bank's green purposes with the Special Share we recommended in 2015. Nevertheless, we are concerned that the Green Investment Group's new international focus may mean less direct investment in the UK. It is too early to say whether the sale of the Bank has left an investment gap in the UK, however, only one of the GIG's first four investments has been located here so far. The UK Government should negotiate to maintain our relationship with the European Investment Bank, which would allow riskier early-stage green infrastructure projects in the UK continued access to development bank finance.

The UK is lagging behind many of our international competitors in issuing green bonds and we heard calls for financial incentives to encourage greater issuance. Once robust standards are in place, there may be a case for incentives to encourage UK companies and financial institutions to issue green bonds. Ministers must outline a timetable for the introduction of authoritative standards on green financial products that give investors confidence they provide additional green benefits.

The Green Finance Taskforce's proposal of issuing a Sovereign Green Bond presents a good opportunity for the Government to set a benchmark of good practice for domestic green bonds and could be a useful mechanism to raise the capital necessary to deliver our carbon budgets and achieve other environmental objectives. As it prepares its delivery plan to secure the investment needed to meet the fourth and fifth carbon budgets, the Government should explore how a Sovereign Green Bond could be directly tied to achieving its Clean Growth Strategy.

# 1 The Investment Challenge

---

1. We launched our green finance inquiry in November 2017 to examine how the UK could mobilise the investment necessary to meet the challenge of climate change, encourage greater consideration of environmental risks in financial decision-making, and become a world leader in green finance. Green finance policies could bring the following benefits:

- Reducing the cost of capital for low-carbon infrastructure—or increasing it for more carbon intensive infrastructure;
- Increasing the availability of capital for low-carbon projects;
- Providing or enabling risk management of environment-related financial risk; and
- Supporting systemic change or adoption of green practices through spillover effects.<sup>1</sup>

2. We held a roundtable event and conducted five days of hearings with investors, asset owners, experts, financial regulators and Government ministers. We would like to thank all of those who contributed to the inquiry, especially our Specialist Adviser, Mike Clark.<sup>2</sup>

## The investment challenge

3. The UK will need to mobilise large volumes of capital investment in clean energy and sustainable infrastructure if we are to meet our obligations under the 2015 UN Sustainable Development Goals and 2015 Paris Climate Change Agreement. The Oxford Sustainable Finance Programme described the challenge as ‘the most capital-intensive transition in human history’ and said that in this process ‘the availability of low cost capital, particularly for low carbon infrastructure and technology, is key.’<sup>3</sup>

4. Ensuring infrastructure remains resilient to projected increases in the intensity and frequency of extreme weather events will also require many billions of pounds of investment in the UK and around the world in the decades ahead. Christian Aid argued that there was a ‘pressing need for adaptation finance’ as well as investment in climate change mitigation. It cites UN Environment Programme figures suggesting the cost of adaptation could range from \$140 billion to \$300 billion globally by 2030.<sup>4</sup>

5. Furthermore, the market is failing adequately to price and protect natural capital, even where it could have material benefits; for example, in reducing the risk of flooding.<sup>5</sup> Healthy habitats and the biodiversity they foster are public goods, so do not automatically

---

1 Oxford Sustainable Finance Programme (GFI0034)

2 Michael John Clark: Declaration of Interests: Ario Advisory, Founder Director and Owner; Brunel Pension Partnership Ltd (“Brunel”), Non-Executive Director; Institute and Faculty of Actuaries, Fellow; Rype Office Limited, Shareholder, Provider of sustainable office furniture; WHEB Asset Management, Member of independent Investment Advisory Committee

3 Oxford Sustainable Finance Programme (GFI0034)

4 Christian Aid (GFI0015)

5 Confor (GFI0032), Green Purposes Company (GFI0006), RSPB (GFI0017)

generate revenue streams or provide obvious investment opportunities.<sup>6</sup> We discuss this issue in Chapter 3 and will examine it in more detail in our 25 Year Environment Plan inquiry.

6. While mobilising ‘green finance’ for clean technology and climate-resilient infrastructure is of pressing importance, greening the finance system as a whole must be the ultimate goal if we are to move to a truly sustainable economic system. We will publish a second report shortly focusing on wider systemic changes to ensure that environmental risks, like climate change, are factored into financial decisions across the wider economy. In this report we will concentrate on the specific interventions that Government can use to affect the cost and availability of capital to direct investment with its climate change and sustainability goals.

### Meeting the UK’s carbon budgets

7. The Climate Change Act 2008 set the UK’s target to reduce emissions of greenhouse gases by at least 80% from 1990 to 2050 and the framework of five-year carbon budgets provides the trajectory to get there. Each budget places a restriction on the total amount of greenhouse gases the UK can emit over a five-year period.<sup>7</sup> The UK has so far set five carbon budgets up to 2032, limiting the UK’s greenhouse gas emissions in each period to:

- 3,018 million tonnes of carbon dioxide equivalent (MtCO<sub>2</sub>e) over the first carbon budget period (2008 to 2012) equivalent to a reduction of 25% from 1990.
- 2,782 MtCO<sub>2</sub>e over the second carbon budget (2013 to 2017) equivalent to a reduction of 31% from 1990.
- 2,544 MtCO<sub>2</sub>e over the third carbon budget (2018 to 2022) equivalent to a reduction of 37% from 1990 to 2020.
- 1,950 MtCO<sub>2</sub>e over fourth carbon budget (2023 to 2027) equivalent to a reduction of 51% from 1990 to 2025.
- 1,725 MtCO<sub>2</sub>e over the fifth carbon budget (2028 to 2032) equivalent to a 57% reduction from 1990 to 2030.<sup>8</sup>

The Committee on Climate Change (CCC) has estimated that meeting our carbon budgets up to 2032 could require investment of up to 1% of GDP per year<sup>9</sup>—approximately £22 billion. In a speech at the recent Commonwealth Summit, the Minister for Energy and Clean Growth, Rt Hon Claire Perry MP, announced that she will ask the Committee on Climate Change to formally advise the government on how the UK’s greenhouse gas targets should be strengthened in the light of the 2015 Paris Agreement aspiration to limit the global average temperature rise to 1.5 degrees.<sup>10</sup> This would involve tightening our existing carbon budgets further.

6 RSPB (GFI0017)

7 The Committee on Climate Change, [An Independent Assessment of the UK’s Clean Growth Strategy](#) (January 2018)

8 The Committee on Climate Change, [An Independent Assessment of the UK’s Clean Growth Strategy](#) (January 2018)

9 The Committee on Climate Change, [The Fifth Carbon Budget](#) (November 2015)

10 <https://utilityweek.co.uk/government-review-targets-meet-zero-emissions-goal/>

8. The UK has made good progress in reducing its greenhouse gas emissions since the Climate Change Act was passed in 2008. By 2016 emissions were down 42% on 1990 levels with the UK reducing the carbon intensity of the economy at a faster average rate than other G7 countries.<sup>11</sup> The first and second carbon budgets have been met, and we have already reduced emissions well below the level expected in the third carbon budget.<sup>12</sup> It is worth noting, however, that the 2008–09 financial crisis helped the UK meet these carbon budgets as it reduced economic output. As a result, emissions were lower than had been expected when the budgets were set.<sup>13</sup>

### ***Policies to decarbonise electricity***

9. The policies of successive Governments have begun shifting the energy mix from higher to lower carbon sources of power, which the Committee on Climate Change has set out as the crucial first step in decarbonising the economy cost effectively. Policies such as the Renewables Obligation, Feed in Tariffs and Contracts for Difference have driven investment in new renewable energy capacity while the Carbon Price Floor has made the use of coal in power generation more expensive. As a result, coal-fired electricity generation declined by 84% between 2012 and 2017.<sup>14</sup> A record 50.4% of the UK's electricity came from low-carbon sources last year, around double the level achieved in 2010.<sup>15</sup> In April 2017, the National Grid reported that the UK had recorded its first full 24 hour period without burning coal for electricity since the first steam-driven public power stations were fired up in the 1880s.<sup>16</sup>

**The Renewables Obligation (RO)** was established in 2002, this policy required energy suppliers to present Renewables Obligation Certificates (ROCs) for each megawatt hour (MWh) of electricity they supply to customers, or make up any shortfall through buy-out payments. Renewable electricity generators received ROCs in proportion to the electricity they generated and were able to sell these on to suppliers to offset the costs of building and operating renewable plant, encouraging more investment in renewable generation. The scheme closed to new onshore wind projects in April 2016, and to all new participants on 31 March 2017.

**Feed-in Tariffs (FiTs)** were introduced in 2010 to incentivise the uptake of small-scale renewable and low-carbon electricity generation technologies. FiTs requires electricity suppliers to pay people with small-scale renewable generation equipment, such as solar PV panels, a fixed price per MWh for the electricity they generate, and an additional premium for any electricity they do not use and export to the Grid.

11 <https://www.pwc.co.uk/sustainability-climate-change/assets/pdf/lcei-17-pdf-final-v2.pdf>

12 The Committee on Climate Change, [An Independent Assessment of the UK's Clean Growth Strategy](#) (January 2018)

13 The Committee on Climate Change, [An Independent Assessment of the UK's Clean Growth Strategy](#) (January 2018)

14 <https://www.carbonbrief.org/uk-low-carbon-generated-more-than-fossil-fuels-in-2017>

15 Department for Business Energy and Industrial Strategy, [Energy Trends](#) (March 2018)

16 <https://www.ft.com/content/8f65f54a-26a7-11e7-8691-d5f7e0cd0a16>

**The Carbon Price Floor** (CPF) was introduced in April 2013 to create a carbon price high enough to stimulate low carbon investment in the power sector, which the EU Emissions Trading System (EU ETS) had not achieved. The price floor consists of two components: (i) The EU ETS allowance price; and (ii) Carbon Price Support (CPS), which is a tax on carbon emissions paid by electricity generators.<sup>17</sup>

**Contracts for Difference** (CfD) were introduced through the Energy Act 2013 to replace the Renewables Obligation. CfDs operate through a system of auctions which guarantee generators a fixed 'strike price' for low-carbon electricity generated over a contracted period. When the wholesale price of electricity is lower than the strike price, the Government pays the difference to the generator. If the wholesale price is higher than the strike price, the generator pays the difference to the Government. This reduces the risk for investors and guarantees returns.<sup>18</sup> The costs of the CfD subsidies are funded by a statutory levy on all UK-based licensed electricity suppliers and are passed on to consumers via their bills.<sup>19</sup>

10. The Government highlighted the UK's successes in securing investment and driving down cost in its submission:

Private investment in renewable energy in the UK continues to be the highest in Europe. Since the referendum the UK has re-entered the top 10 countries in EY's Renewable Energy Country Attractiveness Index (May 2017). The UK was the 3rd highest global investor in renewable energy in 2016, behind only China and the United States, whilst 2016 saw a record investment of nearly £11 billion in offshore wind. Most recently, the second Contracts for Difference round secured 3.3 gigawatts of new generating capacity, enough to power 3.6 million homes. The Government has offered 11 generators contracts, and the capacity this has delivered costs consumers £528 million per year less than it would have in the absence of competition. This competitive approach is continuing to drive cost reductions in the renewable energy industry.<sup>20</sup>

11. The cost of generating electricity from renewables has fallen rapidly in recent years. For example, offshore wind reached record low prices of £57.50 per megawatt hour in the second round of CfD auctions in September 2017 (for delivery in 2022/23). This is less than half the cost of the average strike prices of £117.14/MWh awarded for offshore wind in the first CfD auctions in 2015.<sup>21</sup> Other mature renewable energy technologies, such as onshore wind and solar, may soon not require any form of subsidy.<sup>22</sup> Indeed, solar investor NextEnergy Capital told us in its submission that it is has 'accelerated its timeline for developing subsidy-free solar in the UK, committing to completing four such projects during 2018.'<sup>23</sup>

17 House of Commons Library briefing, [Carbon Price Floor and the price support mechanism](#) (January 2018)

18 House of Commons Library briefing, [Control for low carbon levies](#) (December 2017)

19 House of Commons Library briefing, [Control for low carbon levies](#) (December 2017)

20 HM Treasury and the Department for Business Energy and Industrial Strategy, (GFI0027)

21 <https://www.ft.com/content/2ce7ac15-ee6e-3f9a-b427-6d34dac99ba2>

22 House of Commons Library briefing, [Control for low carbon levies](#) (December 2017)

23 NextEnergy Capital (GFI0031)

## Reduction in clean energy investment

12. Despite the progress that has been made, there are worrying signs that investment may have stalled in the last two years, threatening our ability to meet our fourth and fifth carbon budgets between 2023 and 2032. Analysis of the UK's Infrastructure Pipeline published by the Green Alliance in December 2016 warned that renewables spending had fallen by £1.1 billion in six months and that that this was 'not due to falling renewables costs; it is due to a shrinking pipeline of projects.'<sup>24</sup> According to its analysis of the infrastructure pipeline there will be a 95 per cent reduction in investment between 2017 and 2020.

13. On 16 January 2018, Bloomberg New Energy Finance released figures showing that, in cash terms, clean energy investment in the UK had fallen by 56% in 2017—following a 10% fall in 2016 (see graph below).<sup>25</sup> Annual clean energy investment in the UK is now the lowest it has been since 2008.

Annual Trends, New Investment

### New Investment in Clean Energy United Kingdom, by sector 2004 – 2017

\$bn



18 January 16, 2018

Bloomberg  
New Energy Finance

14. Witnesses to the inquiry provided several explanations for the fall in clean energy investment:

- sudden changes to low-carbon energy policy in 2015 led to a reduction in the number of projects in development;
- falling prices agreed for renewable energy contracts and large projects distorting the numbers;
- disruption due to the privatisation of the Green Investment Bank.

24 Green Alliance, the UK's Infrastructure Pipeline (December 2016)

25 <https://about.bnef.com/blog/runaway-53gw-solar-boom-in-china-pushed-global-clean-energy-investment-ahead-in-2017/>

We will consider these explanations in turn.

### **Policy changes**

15. In the last Parliament, both the Energy and Climate Change Committee and our predecessor Environmental Audit Committee warned that a series of sudden changes to low-carbon energy policies in 2015 had undermined investor confidence. During the summer and autumn of 2015 the then Government:

- closed the Renewables Obligation to onshore wind one year earlier than had previously been announced;
- removed the Climate Change Levy (CCL) exemption for renewables;
- reduced Feed-In-Tariffs for small scale renewable generation;
- cancelled the Zero Carbon Homes policy due to come into force in 2016;
- cancelled the £1 billion Carbon Capture & Storage competition.<sup>26</sup>

16. In its 2016 report on Sustainability and HM Treasury our predecessor committee was critical of the Treasury's role in these decisions, stating that:

... the Treasury had ridden roughshod over other department's objectives, changing and cancelling long-established environmental policies and projects at short notice with little or no consultation with relevant businesses and industries. These decisions caused 'shock' and 'uproar' among sectors affected, with some businesses describing them as 'devastating'. All these changes taken together, have had a damaging effect on investor confidence.<sup>27</sup>

17. In its report, the Energy and Climate Change Committee noted:

... there is no shortage of money available for projects that have advanced to the late construction or operation phase. Institutional investors in particular favour these kinds of investments. However, the problem occurs earlier in the project pipeline where there is some anecdotal evidence of a pause in investment in the supply chain and development of new projects. If investment in these activities has indeed dried up, it may not become apparent until the end of the decade.<sup>28</sup>

18. We asked Angus McCrone from Bloomberg New Energy Finance about the reasons for the fall in investment. In his view, policy changes were a significant factor:

**Angus McCrone:** There has been a big fall between 2016 and 2017 and a somewhat smaller one previously between 2015 and 2016, so some of this is the lumpiness of when big offshore wind projects get financed in one year and not in another. I think the changes in policy have had a big impact.

26 House of Commons Library, [Briefing Paper: Energy Policy Overview](#) (June 2016)

27 Environmental Audit Committee, [Sustainability and HM Treasury](#) (November 2016)

28 Energy and Climate Change Committee, [Investor Confidence in the UK Energy Sector](#) (March 2016)

[...]it has certainly been the case that the sudden drop off in the support for onshore wind and solar did have a big impact on confidence and the number of projects going ahead in those sectors in 2016 onwards.<sup>29</sup>

19. The former Chair of the Committee on Climate Change, Lord Turner of Ecchinswell, suggested that the fall in investment could be a temporary dip brought about by the change in policies from the Renewables Obligation to Contracts for Difference:

... through the renewables obligation certificate regime, which was essentially simply an add-on to whatever the variable price was, we unleashed a big flow of investment in the early twenty-teens. There was then a concern that the total cost of that was ending up higher than the Government had originally anticipated, partly because more investment came forward, stimulated by that ROC regime.

We therefore changed the regime—and I think it was a good regime—to contracts for difference, but we then also limited the amount of money through the control cap. That then produced a period of a year or so in which there was a falling level of investment. In 2015 and 2016, we had investment coming through stimulated by the previous regime. It had made the contracts and was then spending the money.

We have had what I hope is a temporary dip. The danger of that, of course, is that you are not developing your supply chain; you're not developing the scale that gets the costs down. But the good news from the contracts last year for offshore wind was that the costs are still coming down.<sup>30</sup>

### **Cost of renewables**

20. The Head of the Green Investment Group (GIG), Edward Northam, suggested that the completion of large offshore wind developments in particular years could be distorting the annual investment figures. He explained:

We have seen an enormous uptake in delivering new green infrastructure but the reality is that the projects and the numbers that contribute to that statistic are still relatively modest and they are, therefore, distorted by the movement of one or two large offshore windfarms, for example. If you look at the 2016 numbers where in the UK we committed to what I think is the world's largest renewable energy project—the Hornsea offshore windfarm—that is going to distort the figures and then next year we do not contribute to a Hornsea-like project and you are potentially going to see a fall in those numbers. That is the other sort of contributing factor.<sup>31</sup>

The Minister for Energy and Clean Growth, Rt Hon Claire Perry MP, echoed the point, saying that big 'capital-intensive' offshore wind projects had created a 'lumpy' investment profile.<sup>32</sup>

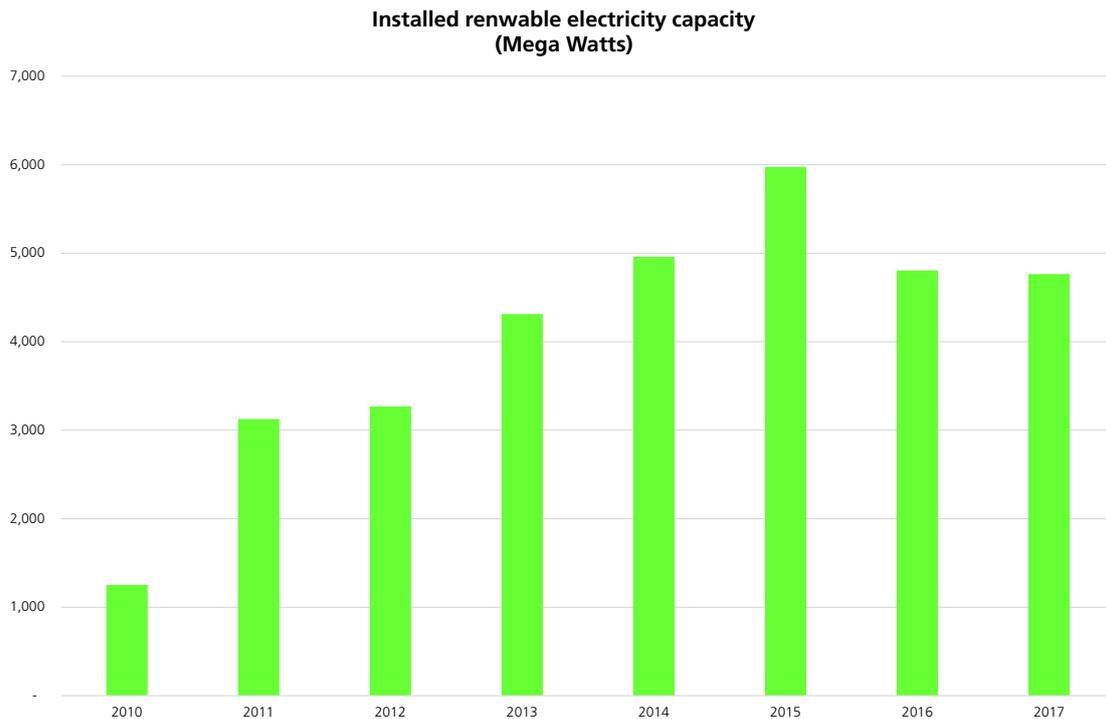
---

29 Q64  
30 Q286  
31 Q131  
32 Q386

21. The Head of the GIG added that the fall in the cost of renewable technologies could be a contributing factor and may mean that the UK is delivering similar levels of installed capacity for less:

**Edward Northam:** The last significant contributing factor to all of these things is that we have significant cost reduction in the underlying technologies, so it is not as simple as saying we are seeing a reduction in investment, therefore a reduction in capacity. In actual fact, we are getting more pound for pound or dollar for dollar out of our investment because we have seen a 50% reduction in installation costs in some of these technologies.<sup>33</sup>

22. Figures published in March by the Department for Business Energy and Industrial Strategy (BEIS),<sup>34</sup> show that, after year-on-year increases in installed renewable energy capacity since 2011, there was less capacity installed in 2016 and 2017 than in the previous two years respectively (see graph below).<sup>35</sup> The Department's figures also show that the annual percentage rate of increase in installed capacity has slowed to 13% in 2017—the slowest it has been since the late 2000s (see the second graph below).<sup>36</sup>

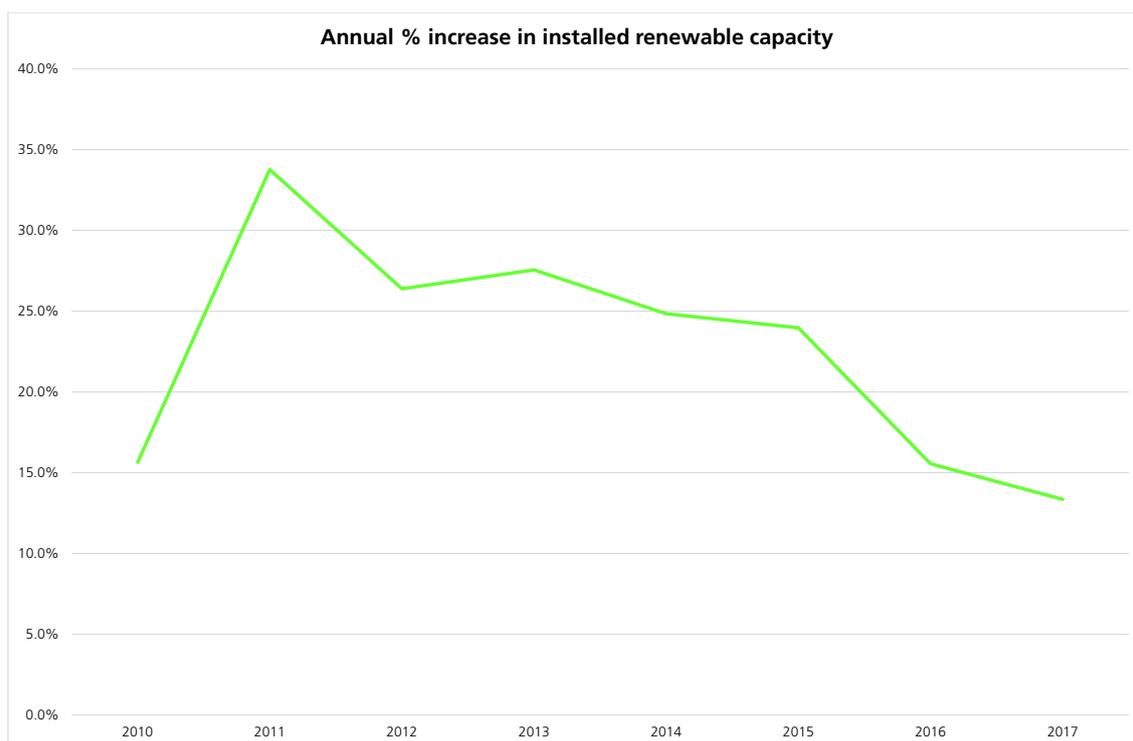


33 Q132

34 Department for Business Energy and Industrial Strategy, [Energy Trends](#) (March 2018)

35 Gov.uk, National Statistics [Energy Trends: renewables](#) (updated March 2018)

36 Department for Business Energy and Industrial Strategy, [Energy Trends](#) (March 2018)



23. The fact that these figures do not reflect the dramatic fall in cash investment in 2017 reported by Bloomberg New Energy Finance, at first appears to give some weight to the arguments that we may now be delivering more installed capacity with less cash investment. However, the full effects of the current fall in investment on the amount of renewable energy being installed and becoming operational may not be seen for several years. Some renewable energy projects have lengthy lead times, taking as long as 8–12 years to develop and complete. For instance, the world’s biggest offshore wind farm currently in construction in the North Sea—the 1,200 MW Hornsea Project One—boosted the UK’s investment figures in early 2016 when developer DONG took its final investment decision, but will not produce electricity until 2019 at the earliest.<sup>37</sup> The project has already been in development for ten years<sup>38</sup> and its Contract for Difference was awarded in 2014 guaranteeing a fifteen-year fixed-price of £140/MWh for its power.<sup>39</sup> Likewise, Contracts for Difference awarded in the last round of auctions in 2017 will not result in electricity being delivered until 2022/23. This means that the full effects of 2017’s fall in investment may not be seen in capacity additions figures until the early 2020s.

### ***Disruption of the GIB sale and fall in EIB funding***

24. The protracted privatisation process for the Green Investment Bank (now Green Investment Group) may have also played a role in the fall in investment. The Green Investment Group (GIG) provided us with the table below showing the number of annual

37 <http://www.4coffshore.com/windfarms/project-dates-for-hornsea-project-one-uk81.html>

38 <https://assets.dongenergy.com/DONGEnergyDocuments/horns/Hornsea%20Project%20One%20project%20summary.pdf>

39 <https://www.telegraph.co.uk/news/earth/energy/windpower/12138194/Worlds-biggest-offshore-wind-farm-to-add-4.2-billion-to-energy-bills.html>

investments since it was established in 2012.<sup>40</sup> The Green Purposes Company—trustees of the GIG—said that disruption because of the 18 month sale may have been responsible for the fall in the number of investments it made in 2017.<sup>41</sup>

#### Green Investment Bank transactions

Year	Direct	Fund	Total
2012/13	5	2	7
2013/14	7	11	18
2014/15	9	13	22
2015/16	8	21	29
2016/17	6	15	21
2017/18	4	2	6

25. It has also been reported that new lending to the UK by the European Investment Bank (EIB) has fallen since 2016 ‘as uncertainties over Brexit made applicants wary and the bank imposed extra precautions.’<sup>42</sup> According to the FT, the EIB’s new contracts with the UK totalled £1.89bn last year, down from £5.54bn in 2016. It has also been reported that the EIB has suspended new loans to public projects in the UK.<sup>43</sup>

26. **The UK has made impressive progress in reducing the carbon intensity of the UK power sector and driving investment in clean energy. But our predecessor committee warned in 2016 that sudden changes to policy had undermined investor confidence and could have an impact on the pipeline of projects in development. Recent figures for cash investment confirm that there has been a dramatic and worrying collapse in clean energy investment since 2015. Sudden policy changes have clearly played a significant part. We hope that this proves to be a temporary dip, but the fall in clean energy investment in 2017 is concerning because of the potential implications for our longer-term carbon reduction plans: we are only five years away from the start of the fourth carbon budget period (2023) and ten years away from the fifth (2028 to 2032).**

27. **To meet these targets, low-carbon energy projects need to be in development now, given the long lead-in times involved. The rapidly falling cost of generating electricity from renewables, like wind and solar, should mean that the UK is able to deliver greater clean energy capacity at lower prices. However, policy changes have dented investor confidence and curtailed the support available to new low carbon projects. The Government needs to restore confidence and provide a stable policy environment to deliver a pipeline of projects.**

40 Letter from GIG to the Committee, 8 February 2018

41 Q112

42 [https://amp.ft.com/content/1d08aa82-fc63-11e7-9b32-d7d59aace167?\\_\\_](https://amp.ft.com/content/1d08aa82-fc63-11e7-9b32-d7d59aace167?__)

43 <https://www.bloomberg.com/news/articles/2017%E2%80%9308%E2%80%9323/u-k-warns-eu-not-to-play-brex-it-hardball-over-investment-bank>

## 2 Policies to secure investment

### The Clean Growth Strategy

28. The Climate Change Act 2008 requires the Government to publish policy proposals setting out how the Government plans to meet the UK's carbon budgets and the long-term goal for 2050 'as soon as is reasonably practicable' after legislating for a carbon budget.<sup>44</sup> After a prolonged delay and fifteen months after legislating for the fifth carbon budget, the Government set out its proposed policy framework in its Clean Growth Strategy published in October 2017.<sup>45</sup> The Strategy covers the work of multiple Departments with policies on energy, housing and transport. It set out five key policies, including an £18million heat recovery programme, continued Energy Company Obligation funding for energy efficiency improvements and an increase in the Renewable Transport Fuels Obligation.<sup>46</sup> However, during our inquiry we focused specifically on the proposals it set out relating to green finance.

29. The Strategy said the Government would 'accelerate clean growth by developing world leading Green Finance capabilities' by:

- Committing the £557 million that went unspent in 2017's CfD auctions (out of a budget of £730 million) to further auctions for low-carbon generation;
- Providing up to £20 million to support a new clean technology early stage investment fund;
- Setting up a Green Finance Taskforce with senior representatives from the finance industry, which made recommendations in March to accelerate private sector investments to deliver the Strategy;
- Working with the British Standards Institution to develop a set of voluntary green and sustainable finance management standards;
- Working with mortgage lenders to develop green mortgage products that take account of the lower lending risk and enhanced repayment associated with energy efficient properties;
- Endorsing the recommendations put forward by the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) and encouraging publicly-listed companies to implement them.<sup>47</sup>

30. In the Autumn 2017 Budget, a few weeks after the Clean Growth Strategy was published, the Chancellor announced a moratorium on financial support mechanisms for new low-carbon energy projects.<sup>48</sup> The new Control for Low Carbon Levies will monitor the total cost of the Contracts for Difference, Feed-in-Tariffs and the Renewables Obligation and will not allow any further subsidies to be introduced until the total cost

44 Committee on Climate Change, *An Independent Assessment of the UK's Clean Growth Strategy* (January 2018); Climate Change Act 2008 ss12–13

45 Department for Business Energy and Industrial Strategy, [the Clean Growth Strategy](#) (October 2017)

46 Committee on Climate Change, [An Independent Assessment of the UK's Clean Growth Strategy](#) (January 2018)

47 Department for Business Energy and Industrial Strategy, [the Clean Growth Strategy](#) (October 2017)

48 HM Treasury, [Control for Low Carbon Levies](#) (November 2017)

of such levies is falling.<sup>49</sup> The Treasury has forecast this will not happen until 2025. The Control applies only to new levies, and specifically excludes existing money committed under the Contracts for Difference (CfD) auctions, Renewables Obligation, Feed-in Tariffs and £557 million allocated for future CfD auctions. The only other case where the Treasury will make an exception to its control on new levies for low carbon electricity projects is 'where they have a net reduction effect on bills and are consistent with the government's energy strategy.'<sup>50</sup>

### **Evaluating the Strategy**

31. Many of the submissions we received praised the Government for the overall vision of the Clean Growth Strategy and its cross-departmental breadth. We heard positive feedback about the establishment of the Green Finance Taskforce and the Government's plans to work on green finance standards, which we discuss in Chapter 4.<sup>51</sup> The Government's endorsement of the TCFD was also broadly welcomed and there was much discussion during the inquiry of how best the Government could implement its recommendations. We will address this issue in our next report on greening finance.

32. Despite praising the Strategy's aspirations, much of the evidence we received was critical of its lack of detailed proposals. Alex White from the Aldersgate Group said:

It sets great ambition and the narrative should not be underplayed in how important that is for investors, particularly international investors looking to invest in the UK. On top of that, it does seem to have good cross-Whitehall buy-in[...] that gives greater confidence that there will be stability going forward.

However, she went on:

... we would look for greater detail in some of the policies. For example, they have said there is an aspiration for all homes to be EPC band C by 2035. We would say that that should, first of all, be a target and, secondly, what levers are you going to use to get there? They have set that end goal with no explanation of how they see that happening.<sup>52</sup>

33. In its submission, the Green Alliance also criticised the Strategy's reliance on aspirational targets, which 'do not drive investment'. It argued that:

... the only major investments made in low carbon technologies have been through the Renewables Obligation (RO), Feed In Tariffs (FITs) and Contracts for Difference (CfDs). The RO had a clear target that licenced electricity suppliers had to meet with regards to renewable sources and both CfDs and FiTs provided a clear way for investment to be put into low carbon technologies. By contrast, the Clean Growth Strategy allocates £557m for Pot 2 CfD auctions, but is otherwise vague on how its aspirations will be achieved.'<sup>53</sup>

---

49 HM Treasury, [Control for Low Carbon Levies](#) (November 2017)

50 HM Treasury, [Control for Low Carbon Levies](#) (November 2017)

51 Aviva (GFI0024)

52 Q15

53 Green Alliance (GFI0011)

34. Similarly, the Principles for Responsible Investment (PRI) network criticised the Strategy's failure to set out a timetable for regular auctions of low-carbon power contracts. It argued that if the March 2019 Contracts for Difference auction 'was split into two or three well-spaced auctions it would provide investors in the UK wind sector with some much-needed certainty in the medium term'.<sup>54</sup> The Overseas Development Institute said in its evidence that the UK's Clean Growth Strategy is undermined and contradicted by continued public finance to fossil fuels through UK Export Finance. It said that its research had found that UK Export Finance provided £551 million for fossil fuel production on average per year in between 2014 and 2016.<sup>55</sup>

35. During the course of our inquiry, the Committee on Climate Change (CCC) warned that urgent action is needed to flesh out the plan to meet our carbon budgets between 2023–2032. It praised the Government for placing 'the low-carbon economy at the heart of the UK's industrial strategy', but pointed out that even if existing and new policies were 'interpreted generously' and delivered in full, the UK will miss the fourth (2023–27) and fifth carbon budgets by 10–65 MtCO<sub>2</sub>e.<sup>56</sup> The CCC said that the UK's first three carbon budgets had turned out to be easier to meet than expected for a range of reasons—including economic weakness during and following the financial crisis. It warned the Government that this surplus should not be relied upon to meet the fourth and fifth budgets.<sup>57</sup>

36. The CCC highlighted a particular risk of missing the fourth budget, given that it begins in only five years and project lead times can be lengthy. It noted the announcement of innovation funding could have a positive long-term impact, but would contribute little to existing carbon budgets. It argued the Government will need to be prepared to provide deployment support to existing technologies and should include cost-competitive technologies, such as onshore wind and solar PV, when procuring low-carbon energy. It called on the Government to set out by the end of 2018 how it intended to close the remaining gap to meeting the budgets.<sup>58</sup>

37. We put the Committee on Climate Change's criticisms to the Minister, who defended the strategy:

**Claire Perry:** ...I think what they [the CCC] commented on were the policies and proposals in the Clean Growth Strategy for which estimates have been created, and only 30% of the 50 policies and proposals are at a developed enough state to put emissions reductions against them. Even with those estimates—and using the updated emissions estimates from January—we are on track to meet 97% of the fourth carbon budget and 95% of the fifth carbon budget, and those are budgets that end in 10 or 15 years' time.<sup>59</sup>

38. In March, as we were preparing this report, the Green Finance Taskforce established by the Clean Growth Strategy published its recommendations to Government on

---

54 Principles for Responsible Investment (GFI0029)

55 Overseas Development Institute (GFI0018)

56 Committee on Climate Change, [An Independent Assessment of the UK's Clean Growth Strategy](#) (January 2018)

57 Committee on Climate Change, [An Independent Assessment of the UK's Clean Growth Strategy](#) (January 2018)

58 Committee on Climate Change, [An Independent Assessment of the UK's Clean Growth Strategy](#) (January 2018)

59 Q397

accelerating green finance.<sup>60</sup> It called on the Government to set up a Local Development Finance Fund and issue a Sovereign Green Bond as part of a National Capital Raising Plan tied to the delivery of the Clean Growth Strategy and 25 Year Environment Plan.

**39. We are encouraged by the cross-Departmental ambition of the Government's Clean Growth Strategy. However, in many areas the detail is lacking. Aspirations alone are not enough to redirect investment away from high carbon to lower carbon alternatives. Indeed, the Government's independent advisers, the Committee on Climate Change, have warned of a policy gap that will lead to a shortfall in the fourth (2023–2027) and fifth (2028–2032) carbon budgets even if the Strategy's policies are 'interpreted generously' and delivered in full.**

*40. Given that these budgets are only a few years away, Ministers must urgently plug this policy gap and publish a delivery plan to secure the investment needed to meet the fourth and fifth carbon budgets—without relying on carrying over a surplus from previous budgets. It is imperative that the Government responds to the Green Finance Taskforce's recommendations promptly and produces a delivery plan in time for the 2018 Budget to show how it intends to deliver the Clean Growth Strategy. Ensuring that we are on track to meet our current carbon budgets is even more important now that the Government has asked the Committee on Climate Change to explore how to strengthen the UK's greenhouse gas targets in the light of the 2015 Paris Agreement aspiration to limit temperature rises to 1.5 degrees.*

## Policy mechanisms to deliver low carbon investment

41. Several submissions to our inquiry argued that capital was already available to deliver green investment and the Clean Growth Strategy, but highlighted that the key is ensuring that the right policies are in place to reduce risks and bring forward a pipeline of projects for investors. The Institute for Sustainable Resources at University College London explained that 'the challenge is to ensure a pipeline of bankable projects offering returns that are attractive to investors and respond to their risk management needs'.<sup>61</sup>

42. This can be done in two main ways, according to the Institute for Sustainable Resources. Direct support instruments, such as renewable energy subsidies or de-risking measures like fixed long-term contracts, are effective policy mechanisms for reducing risk and increasing investment in low carbon energy projects.<sup>62</sup> More broadly, carbon pricing mechanisms such as a carbon tax or emissions cap-and-trade schemes can be used to alter the balance of value and risk between low-carbon investments and their high-carbon equivalents. We heard a variety of evidence about these two methods of redirecting investment from high to low carbon projects, which we will consider here.<sup>63</sup>

60 Green Finance Taskforce, [Accelerating Green Finance: a report to Government](#) (March 2018)

61 Institute for Sustainable Resources, University College London (GF10020)

62 Institute for Sustainable Resources, University College London (GF10020)

63 Institute for Sustainable Resources, University College London (GF10020)

### *Reducing risk for renewable energy investors*

43. Low carbon electricity generation tends to benefit from lower operating costs, but often requires high up-front capital investments.<sup>64</sup> As a result, its economics are strongly influenced by the cost of capital and the required rate of return—which is reflected in how risky an investment is considered to be. In Lord Turner’s view, the most effective way the Government could provide certainty, reduce risk and deliver investment in renewable energy was through fixed-price contracts. He believed these could soon be subsidy free:

The crucial thing there is not to redesign anything in the financial system. The finance is there, as long as there is the ability to invest with the certainty of selling the electricity at a defined price in advance. Until now, we have written those CFDs with an expectation that on average, over time, they will cost something. Relative to the reference price of what we think the wholesale price will be, we have paid a higher price. I think that there should be a developing vision that we move towards more CFDs at a lower and lower premium over the expected wholesale price, and I suspect that within three or four years we will write contracts that have no expectation of subsidy, but which still require the Government or the systems operator to make a fixed price commitment.<sup>65</sup>

A ‘**subsidy-free**’ CfD would be possible if a strike price was agreed at a price below or equivalent to the forecast wholesale electricity market price. Guaranteeing the price (even below wholesale prices) reduces the risk of investment and provides certainty that investors will receive profitable returns when selling the electricity generated.<sup>66</sup> If the strike price was below the wholesale price for most of the period of the contract, it could result in a net gain in revenue to the Government.

44. NextEnergy Capital, which manages \$1 billion of solar investment equity, said it would soon be possible for them to deliver subsidy free solar power installations, but that fixed price contracts in the form of Power Purchase Agreements should replace CfDs. It argued that:

CfDs favour large business operators due to the cost, time and resource demand of bidding for a CfD. As such, the CfD model is a bottleneck to investment—in particular, a bottleneck to investment in small scale, low carbon generation. Investors require pipeline depth and viability ahead of mandating an investment strategy. There is an inherent illiquidity associated with the small number of large scale opportunities offered via CfDs.<sup>67</sup>

64 Grantham Institute, [Some key issues for reviews of the costs of low-carbon electricity generation in the UK](#) (November 2017)

65 Q284

66 <https://commonslibrary.parliament.uk/science/energy/renewable-electricity-a-subsidy-free-future/>

67 NextEnergy Capital (GFI0031)

A **Power Purchase Agreement** is a contractual agreement between two parties, one which generates electricity (the seller) and one purchasing electricity (the buyer). A PPA may specify when the generator must supply power, how much, the price paid, and penalties for failing to meet the terms of the contract. PPAs are currently used by electricity suppliers in the UK to purchase electricity that small scale renewable energy producers export to the grid.<sup>68</sup>

45. The PRI also argued for the use of Power Purchase Agreements for ‘subsidy free renewables’, which would guarantee an inflation linked price at a level below the wholesale rate.<sup>69</sup> Recent research has indeed indicated that certain mature technologies, such as onshore wind, could be brought forward in the UK without the need for any direct subsidy as long as fixed-price contracts are used to reduce risk.<sup>70</sup>

46. WWF said that the Treasury’s move to constrain the money available for low carbon levies until 2025, ‘will not bolster investor confidence’.<sup>71</sup> It also said the Strategy was ‘silent on future support for, or direction of policy in relation to, onshore wind or solar power, generating further uncertainty for future investment in these technologies.’<sup>72</sup>

47. **Given the disruption and policy uncertainty of the last three years, the Treasury must ensure that its attempts to keep costs down for consumers do not exacerbate the current dip in clean energy investment. *The Government should launch a consultation before the next round of CfD auctions in 2019 to explore how it can continue to encourage new low-carbon generation with fixed-price contracts in the early 2020s, while keeping costs down for consumers.***

### Carbon pricing

48. The UK’s Carbon Price Support policy and Carbon Price Floor has been one of the most effective examples of carbon pricing in the world, according to the Institute for Sustainable Resources, becoming the ‘primary policy mechanism for shifting the energy mix from coal to less carbon intensive gas.’<sup>73</sup> Carbon Price Support is a tax on every tonne of CO<sub>2</sub>e emitted by electricity generators. We also heard that a higher carbon price could, in the long run, be an effective and technology neutral way to drive investment and innovation in emissions-reducing technologies across the rest of the economy. Lord Turner argued that, while direct support for low-carbon technologies through fixed price contracts was necessary to deliver deployment of renewables and other low-carbon electricity, a rising carbon price would be necessary to decarbonise other areas of the economy as we progress towards our 2050 target:

Where the carbon price will be absolutely crucially dependent is in driving the decarbonisation of industrial sectors. When you get to, “How are we going to take the carbon out of plastics production, chemicals, ammonia, steel and cement?”, in those areas you cannot possibly define centrally a

68 <https://www.edfenergy.com/large-business/sell-energy/power-purchase-agreements>

69 Principles for Responsible Investment (GFI0029)

70 Arup, [Enabling Investment in Established Low Carbon Electricity Generation](#) (July 2017)

71 WWF (GFI0022)

72 WWF (GFI0022)

73 Institute for Sustainable Resources, University College London (GFI0020)

small number of things that you need to do—“Build this much nuclear and that many windmills and you’ve got there.” You have to have a very complicated, private sector, competitively driven search process for the best solutions. [...]

As we move beyond the challenge of decarbonising the power sector and start to look at some of the other sectors of the economy, the carbon price could be more important than it has been. Generating an expectation of a gradually rising carbon price is hugely important.<sup>74</sup>

49. When the UK’s Carbon Price Floor was introduced, it was due to rise every year until 2020 (to a price of £30/tCO<sub>2</sub>). In the 2014 Budget, the Government capped it at a maximum of £18/tCO<sub>2</sub> from 2016 to 2020 to limit the competitive disadvantage faced by business and reduce energy bills. This price freeze was extended to 2021 in Budget 2016.<sup>75</sup> NextEnergy Capital argued that for carbon pricing to be truly effective, the Government needed to set a clear, stable and steeper upward trajectory. It suggested this could be mapped out over a 30 year period with the carbon price increasing every five years.<sup>76</sup>

The **Carbon Price Floor** (CPF) was introduced in April 2013 to pin the price of carbon at a level high enough to drive low carbon investment, which the EU Emissions Trading System (EU ETS) had not achieved. It applies to energy generators and energy intensive industries.<sup>77</sup>

50. As a member of the European Union, the UK participates in the EU’s Emissions Trading Scheme (EU ETS), which sets a price on carbon for the power sector, and energy intensive industries. The EU ETS covers approximately one third of UK carbon emissions,<sup>78</sup> and Carbon Price Support only applies to electricity generators. The remaining two thirds of the economy is covered by no carbon pricing policy. Although the Government have said it is their intention to negotiate to remain in the EU ETS, the ETS is a single market mechanism, and there is no guarantee that the UK will be able to participate after Brexit if the UK leaves the single market.

51. At the Autumn Budget 2017, the Treasury announced that the UK’s Carbon Price Support would remain in effect until “unabated coal is no longer used”.<sup>79</sup> This means the Carbon Price Support policy will cease to be in force after 2025, which is when the Government has committed to phase out unabated coal.<sup>80</sup>

**52. The future of both of the UK’s carbon pricing policies are at risk, on the one hand from Brexit and on the other from the lack of Government commitment to use carbon pricing to drive decarbonisation in the power sector after unabated coal is phased out. Carbon pricing has been extremely effective at driving investment away from carbon-**

74 Q285

75 House of Commons Library Briefing, [Carbon Price Floor and the price support mechanism](#) (January 2018)

76 NextEnergy Capital (GFI0031)

77 House of Commons Library briefing, [Carbon Price Floor and the price support mechanism](#) (January 2018)

78 This is based on an analysis of figures from the Annual Statement of Emissions 2015, which states that total UK territorial emissions were 495MtCO<sub>2</sub>e in 2015, and that UK operators of ETS installations surrendered 171MtCO<sub>2</sub>e. This shows that emissions from ETS installations accounted for 34% of total UK emissions in 2015.

79 HM Treasury, Autumn Budget 2017, paragraph 3.45.

80 <https://www.gov.uk/government/consultations/coal-generation-in-great-britain-the-pathway-to-a-low-carbon-future>

**intensive forms of generating electricity. We heard evidence that a carbon price would be an effective way to drive decarbonisation in other sectors of the economy. Long-term clarity about the future level of that price would allow businesses and investors to plan for the transition to a low-carbon economy.**

***53. Ministers should set out a trajectory to gradually increase the carbon price—starting after the current freeze on Carbon Price Support comes to an end in 2021—to continue driving investment away from fossil fuel based electricity generation. The Government should also carry out an assessment to consider how extending carbon pricing to cover the whole economy could help us meet our climate change targets.***

### 3 Development finance

54. Concerns were raised during the inquiry about funding for sustainable infrastructure and renewable energy given the uncertainty around the future role of the European Investment Bank (EIB) and the Green Investment Bank (now known as the Green Investment Group).<sup>81</sup>

#### The Green Investment Bank

55. The Green Investment Bank (GIB) was established by the Coalition Government in 2012 to address market failures limiting low carbon investment and to accelerate the clean energy transition to meet the UK's Climate Change Act commitments.<sup>82</sup> After only three years of operation the Government announced plans to sell the GIB and this process was completed in August 2017 with a sale to Australian firm Macquarie. A number of commitments were made by Macquarie to preserve the green purposes of the Bank including a promise to target £3 billion of new investment in green infrastructure projects over the next three years. Following the sale Macquarie announced that the GIB would operate under the name Green Investment Group (GIG) to overcome legal and regulatory barriers when investing in international markets.<sup>83</sup>

56. Our predecessor Committee published a report at the outset of the sale process in 2015. It concluded that the Government took the decision to sell the Bank 'without due transparency, publication of relevant evidence, consultation, or proper consideration of alternatives.'<sup>84</sup> It raised concerns that the Bank's green purposes would not be adequately protected and recommended that the Government retain a Special Share to protect them. In response to these concerns, the Government established the Green Purposes Company to hold a Special Share to safeguard GIB's green principles after the GIB left public ownership.

57. At our roundtable there was a degree of disagreement between participants who believed privatisation might lead to a gap in higher risk investments and those who thought the market for lower carbon technology was sufficiently mature to be able to meet those needs. There was general agreement that it was too early to tell how the Green Investment Group's new international model would affect levels of green investment in the UK. Nevertheless, E3G argued in its written submission that the case remains for a Green Investment Bank in the UK because environmental market failures still exist. It suggested the Government should create a 'National Infrastructure Bank to provide funding to support the ambitious Clean Growth and Industrial strategies'.<sup>85</sup>

#### Negative impacts of the sale

58. This inquiry has revealed three negative impacts that the sale of the Green Investment Bank either has had, or could have, for the UK's ambitions to increase flows of green finance domestically:

81 Grantham Institute (GFI0001), E3G (GFI0016)

82 Green Investment Bank Commission, Unlocking investment to deliver Britain's low carbon future (June 2010)

83 HM Treasury and the Department for Business Energy and Industrial Strategy (GFI0027)

84 Environmental Audit Committee, Second Report of Session 2015–16, [The Future of the Green Investment Bank](#), HC 536, p. 3

85 E3G (GFI0016)

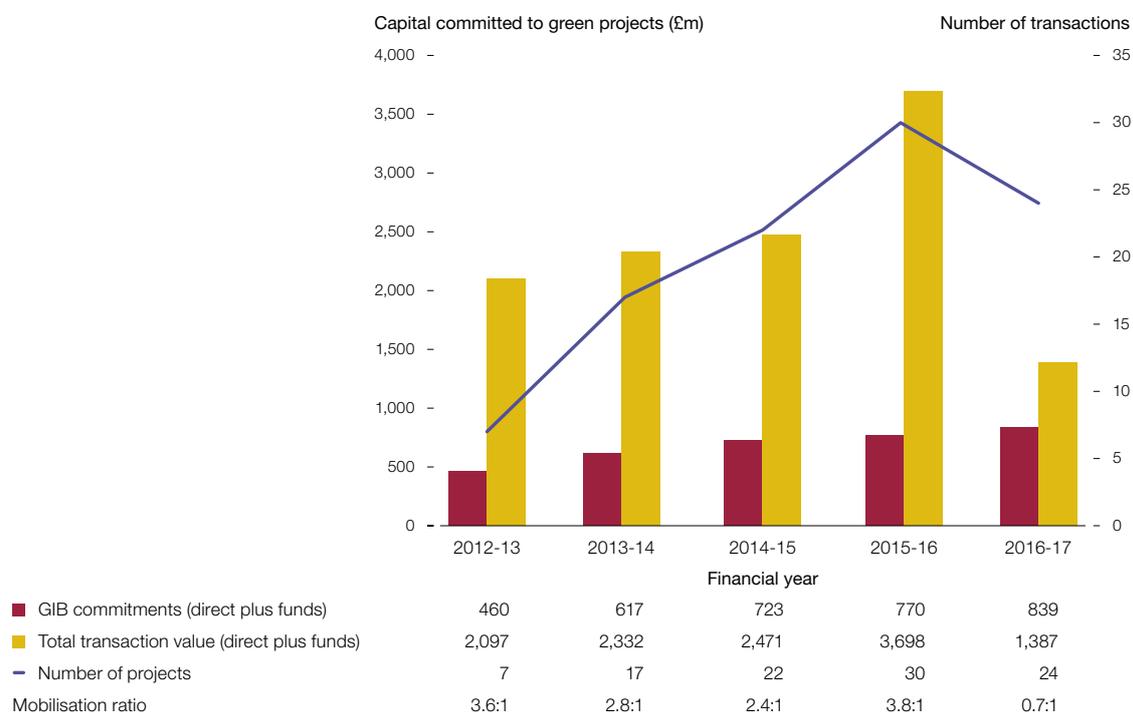
- The disruption of the sale process itself has reduced the number of investments made by the Bank during 2016/17;
- The new international focus of the Green Investment Group (GIG) may lead to the Bank making fewer investments in the UK;
- As a private institution the GIG is unlikely to fulfil the original purpose of the Bank, which was to invest in riskier projects.

### Disruption of the sale process

59. As previously noted in Chapter 1, the disruption of the sales process had an impact on the number of investments that the Green Investment Bank made in 2016/17. The National Audit Office's report in December 2017 examining the sale of the Green Investment Bank shows that the number of projects being invested in by the Bank, and the total transaction value of those projects, fell in 2016/17 (see graph below). The GIB told the NAO that the delay and uncertainty throughout the sale process led to the loss of key GIB staff, and affected GIB's ability to continue investing in projects.<sup>86</sup> When asked about the rate of investments made by the bank, Lord Teverson told us: "Yes, it looks slow."<sup>87</sup>

Green Investment Bank (GIB) investment activity and commitment of capital

GIB's investment activity increased over time



#### Note

1 GIB's gross commitments between 2012-13 and 2016-17 total £3.4 billion. This figure includes asset sales into, and purchases made by, GIB's Offshore Wind Fund, and other asset refinancing. GIB's net committed capital as at 31 March 2017 was approximately £2.1 billion.

86 National Audit Office, [The Green Investment Bank](#) (December 2017)

87 Q107

60. The Green Purposes Company (GPC) pointed out that the GIB sale process took 18 months, more than twice as long as expected. It said:

This was a difficult period and GPC welcomes the strong management during this time which has resulted in relatively modest staff losses and some continued investment activity. However, Macquarie have had little time since August to build a new pipeline of opportunities and bring new talent into the GIG. We note that UK deal flows in the first few months have been modest and hope that reflects the distraction of the recent sale process rather than a market response (to recent government policy) or focus abroad by the GIG.<sup>88</sup>

### **International focus of the GIG**

61. The GIG outlined its new international focus in a letter to us on 15 December:

The early intention ... was that GIG would become the main platform for Macquarie's principal investments in green infrastructure in Europe. That has now broadened to include Asia and the Middle East—key markets for the global growth of green infrastructure. All geographic expansion of the GIG business will be conducted under the same green purposes and principles which governed the business under public ownership.<sup>89</sup>

62. The Green Investment Group has announced four investments since its privatisation in August. Only one of these is in the UK:

- €136M investment for 50% equity stake in the operational waste-to-energy (WtE) plant in Dublin;
- €300M joint equity investment with GE Energy Financial Services, for 650MW of onshore wind in northern Sweden;
- Up to £30M of UK Climate Investments funds in partnership with Lightsource, for up to 300MW of solar PV in India;
- £38M of debt financing for Wheelabrator Technologies for a new Energy-from-Waste facility in West Yorkshire.<sup>90</sup>

63. Concerns were raised during the inquiry that this new international focus of the Green Investment Group could leave an investment gap in the UK. We asked the Head of the GIG Edward Northam about its balance of international to UK investments to date and whether this would reflect future GIG investments. He told us that we were looking at a 'very short timeframe' since privatisation and that in those five months the GIG had invested 'in excess of £1billion'.<sup>91</sup> He said it was too early to say what the GIG's portfolio will look like in 12 months, but suggested that the balance of UK to international projects could be different in the future:

---

88 Green Purposes Company (GF10006)

89 Letter from GIG to the EAC (15 December 2017)

90 <http://greeninvestmentgroup.com/news-and-insights/?news-type=all-news>

91 Q142

I can't predict the future, so I can't categorically say about the one-to-four ratio but there is a couple of factors. Within the four projects that we have committed to to date, one of the larger ones involves investment in a partnership alongside the world's leading waste-to-energy company and that partnership contemplates the delivery of a range of assets, the majority of which and the pipeline of which is UK-based. The second thing is that I can look forward a little in my current investment pipeline, which moves around and changes shape, and when I look at what that looks like today, the percentage of UK-based projects that make up that pipeline is quite substantial. It is in excess of 50%, so that gives me confidence to suggest that the one-to-four ratio that you are quoting is not necessarily indicative of the way this will play out.<sup>92</sup>

64. On 14 March 2018, the Public Accounts Committee published a report on the sale of the Green Investment Bank, criticising the Government for failing to secure assurances guaranteeing future investment in the UK. The PAC concluded that:

It is unclear whether Green Investment Group (GIG; the rebranded GIB under Macquarie ownership) will continue to support the government's energy policy, or continue to have an impact on the UK's climate change goals. We believe that it was a misjudgement that the Department has so little assurance over GIG's future investment in the UK and in emerging technologies, which will be crucial to ensuring that the UK's green commitments are met.<sup>93</sup>

**65. We are pleased to have secured protections for the Bank's green purposes with the Special Share we recommended. However, we are concerned that the Green Investment Group's new international focus may mean less direct green investment in the UK. It is too early to say whether the sale of the Green Investment Bank has left an investment gap in the UK, but only one of the GIG's first four investments has been located here.**

### *Addressing market failures*

66. Our predecessor committee identified a risk that even if the GIB's green purposes were protected, it would 'move its focus away from novel and complex projects which struggle to find funding in favour of easier and less complex projects'.<sup>94</sup> Several submissions to this inquiry also highlighted a move away from higher risk or less attractive sectors as a risk now that the GIG has been privatised.<sup>95</sup> It was felt that as a private entity the GIG would inevitably take a different approach. Sini Matikainen from the Grantham Institute said:

One of the things that we highlighted ... is the concern that with the Green Investment Bank now being privatised it will fulfil a different role than it did before. The special share arrangement should be helping to guarantee that the focus is the same as it was before, but in a sense it is going to be a private sector actor competing with other private sector actors for similar types of projects, as opposed to a Government entity that is perhaps taking on

92 Q142

93 Public Accounts Committee, the Sale of the Green Investment Bank (March 2018)

94 Environmental Audit Committee, The Future of the Green Investment Bank (December 2015)

95 E3G (GFI0016), Grantham Institute (GFI0001), Green Alliance (GFI0011)

higher risk projects or projects that private sector actors would be unwilling to fund, so it might be changing its focus. We did highlight that concern but I think at this stage it is difficult to say definitively, given the privatisation is still quite new, so we have only a few months' information to draw from.<sup>96</sup>

67. We put these concerns to the GIG. It insisted that although it now has a broader mandate and an international remit, this did not amount to a 'fundamental shift in focus':

**Edward Northam:** Addressing market failures remains our core focus for the Green Investment Group under private ownership. There are a number of reasons for that. I think it starts with the fact that that is in our DNA. The team that came together as part of the Green Investment Bank now under Macquarie ownership still has the same focus, the same desire, I guess, to identify those areas where the market is short of capital and to look to ways to fill—<sup>97</sup>

68. The GIG also argued that its initial investments had all had 'significant risks':

**Edward Northam:** Market failure is not as simple as saying no one supports that technology. A market failure in the waste-to-energy industry can be that there is insufficient liquidity in that market to deliver the potential of that opportunity. When I look at the role we played in financing the Ferrybridge waste-to-energy facility, that was the situation we found. While there is capital available to a degree to support those projects, there is sometimes a shortfall, and that is the role that we fill there.<sup>98</sup>

69. The Green Purposes Company stated the obvious fact that as a private entity the GIG is no longer obliged to support Government policy:

**Peter Young:** ... we have to be clear there is a slight game change here because it has been privatised and the GIG is no longer connected to Government policy. [...] It is for Government to think about whether there are gaps that are going to appear. In any organisation, however constructed and whatever purposes are set to it, its investment committees... will have to take a decision on the basis of an investable project. If no investable projects can be brought forward, that is something that needs to be done in collaboration with policies that help address those market failures.<sup>99</sup>

70. However, Energy and Infrastructure Project Finance consultant Martin Blaiklock, was sceptical as to whether the Green Investment Bank had ever addressed market failures, even before privatisation:

Primarily, GIB was a re-financing, rather than a development finance, institution. Most of its business was re-financing existing investment projects, particularly offshore wind projects which had reached completion,

---

96 Q2  
97 Q148  
98 Q148-Q149  
99 Q111

rather than investing in ‘green’ projects at the outset of construction (where the risks are higher). Hence, its impact on the UK’s industrial strategy was, in my view, minimal.<sup>100</sup>

71. We asked the Minister whether the sale of the Green Investment Bank would have an impact on the availability of finance to stimulate investment in innovation in green technology. She told us that there were no longer market failures in this area:

**Claire Perry:** ...do we think there is a funding shortfall that is somehow hindered by this change of ownership? I do not think there is. I look at the fact that originally the GIB was set up to address market failure and it does not appear that there is market failure now. There are questions around the cost of risk structuring, particularly around carbon capture, but that is not the point of the additional finance.<sup>101</sup>

72. While significant progress has been made in decarbonising power, we heard from Lord Turner that considerable policy and investment challenges remain to be overcome in decarbonising transport, heating and heavy industry.<sup>102</sup> Market failures also remain when it comes to pricing and protecting biodiversity and habitats. The RSPB noted in its evidence that ‘prior to privatisation, natural capital was one of the GIB’s green purposes against which it failed to invest anything, despite trying.’<sup>103</sup> According to the RSPB, this shows that the challenge with natural capital investments is the lack of reliable revenue streams. Because many of the benefits associated with environment protection—such as improved well-being or flood protection—are public goods ‘they are not amenable to market allocation, do not automatically generate revenue streams and are therefore uninvestible to a large extent.’<sup>104</sup>

73. The Green Purposes Company agreed that there were still market failures when it comes to protecting natural capital. It pointed out that the 25 Year Environment Plan will require new investment flows into natural capital, but there are currently no markets at scale for investing in biodiversity or the natural environment: two of the five ‘green purposes’ of the GIB. It suggests that ‘until such markets are created through policy and incentives it is unlikely that the market, including the GIB, will be able to invest in these areas in a meaningful way.’<sup>105</sup>

**74. We do not accept the Government’s assertion that the market failures the Green Investment Bank was set up to address have been resolved. The previous Committee was unconvinced by the case for privatisation of the Green Investment Bank at the time. Now that the GIG is operating as a private company it is no longer bound to support Government objectives and is likely to invest in lower risk projects.**

---

100 T. Martin Blaiklock (GFI0009)

101 Q428

102 Q280

103 RSPB (GFI0017)

104 RSPB (GFI0017)

105 Green Purposes Company (GFI0006)

## European Investment Bank funding

75. Compounding the concerns about the future provision of green finance in the UK by the Green Investment Bank is the uncertainty over our continued access to European Investment Bank finance. The European Investment Bank (EIB) is an EU development bank owned by Member States that provides finance and expertise for sustainable investment projects that contribute to EU policy objectives. The EIB has an AAA credit rating and can raise money at a cheaper rate than private debt and equity providers. As the EIB does not make commercial returns, it is a cheaper source of finance than private equivalents.<sup>106</sup> The EIB supports projects by investing directly helping to ‘de-risk’ projects for private investors.<sup>107</sup>

76. The UK is a 16% shareholder in the EIB.<sup>108</sup> Since 2012, the EIB has invested over €31.3 billion in the British economy, including more than GBP 13.4 billion in ‘climate projects’.<sup>109</sup> This includes onshore and offshore windfarms, sustainable transport and energy efficient public buildings. In 2016, Britain was the fifth largest recipient of EIB loans with most funding going to upgrading infrastructure like water, transport projects, or energy.<sup>110</sup> The Grantham Institute says that the EIB contributed more to renewable projects in the UK than the GIB. In the fiscal year ending in 2016, the GIB committed £700 million in financing, whereas the EIB committed £1.2 billion in renewable energy investment in the UK.<sup>111</sup> At our private roundtable event on green finance, one participant told us that the UK could lose 90% of EIB funding after Brexit.

### *The UK’s future relationship with the EIB*

77. On 8 December 2017, a joint report concluding Phase 1 of the Brexit negotiations, published by the European Commission and UK Government stated that:

The UK considers that there could be mutual benefit from a continuing arrangement between the UK and the EIB. The UK wishes to explore these possible arrangements in the second phase of the negotiations. After the date of withdrawal, UK projects will not be eligible for new operations from the EIB reserved for Member States, including those under Union mandates.<sup>112</sup>

78. There are potential options for a continued relationship between the UK and EIB post-Brexit. The European Free Trade Association (EFTA) states (Norway, Iceland, Switzerland and Lichtenstein), for example, have been funded since 1994 under the EIB

106 <https://www.instituteforgovernment.org.uk/explainers/european-investment-bank-brexit>

107 <https://www.instituteforgovernment.org.uk/explainers/european-investment-bank-brexit>

108 <https://www.brugesgroup.com/media-centre/papers/8-papers/717-the-uk-s-risks-and-exposure-to-the-eib-and-other-european-financial-mechanisms>

109 Email from EIB to committee specialist, 13 November 2017

110 <https://www.instituteforgovernment.org.uk/explainers/european-investment-bank-brexit>

111 Grantham Institute, Financing low-carbon growth and innovation in the UK Industrial Strategy (April 2017)

112 [https://www.gov.uk/Government/uploads/system/uploads/attachment\\_data/file/665869/Joint\\_report\\_on\\_progress\\_during\\_phase\\_1\\_of\\_negotiations\\_under\\_Article\\_50\\_TEU\\_on\\_the\\_United\\_Kingdom\\_s\\_orderly\\_withdrawal\\_from\\_the\\_European\\_Union.pdf](https://www.gov.uk/Government/uploads/system/uploads/attachment_data/file/665869/Joint_report_on_progress_during_phase_1_of_negotiations_under_Article_50_TEU_on_the_United_Kingdom_s_orderly_withdrawal_from_the_European_Union.pdf)

EFTA Loan Facility.<sup>113</sup> Reuters has also reported that in phase 2 of Britain's EU-exit, the EIB will be investigating whether it can set up a subsidiary which would also be open to non EU-Members.<sup>114</sup>

### **Replacing GIB & EIB funding**

79. In written evidence, E3G called for Government to develop and publish contingency plans, and guarantee funding for climate change finance that would otherwise be provided by the EIB. It says that:

The EIB and GIB have played an important role in financing infrastructure by undertaking due diligence on complex and 'first of a kind' projects. With the sale of the Green Investment Bank, and uncertain arrangements with the EIB, this financing is uncertain.<sup>115</sup>

80. In oral evidence Treasury Minister, John Glen MP, suggested that the British Business Bank could play a role in replacing funding from the Green Investment Bank and European Investment Bank.<sup>116</sup> We pressed him on this:

**Chair:** EIB's investments in the UK collapsed by about 60% to 70% last year, post the referendum results. In 2016 it was €5.5 billion invested, last year €1.9 billion. [...] that is about a 60% drop. The British Business Bank isn't going to make up that shortfall, is it?

**John Glen:** You are right, and if I could take that perspective back further. If you look from 2006 to 2016, you see €15.69 billion invested [by the EIB]. I acknowledge that there is work to be done in terms of overcoming the challenge of working out how we transition to the new environment. The Chancellor has been very clear about the possibility of seeing it mutually beneficial to continue to have that relationship with the EIB, but it is not something I can categorically tell you the outcome of because it is part of the wider negotiations. We are aware of the actual sums of money involved and the need to have an appropriate alternative mechanism to invest should that be necessary at the end of the negotiation process.<sup>117</sup>

81. The British Business Bank (BBB) was created by the Government in 2014 'to make finance markets work better for small businesses in the UK at all stages of their development'.<sup>118</sup> Its focus as a development bank, owned by the Department for Business, Energy and Industrial Strategy, is on increasing 'the supply of finance available to smaller businesses where markets don't work well' to support entrepreneurs starting—or scaling up—businesses.<sup>119</sup> In the November 2017 budget, the Chancellor announced £2.5bn of new resources for the BBB in response to the Patient Capital Review.<sup>120</sup> The BBB currently has no remit to invest according to green objectives or support infrastructure development. Its

113 ClientEarth (GFI0012)

114 <https://uk.reuters.com/article/uk-eu-eib-exclusive/exclusive-european-investment-bank-plans-internationally-focussed-offshoot-idUKKBN1E02XE?feedType=RSS&feedName=GCA-GoogleNewsUK>

115 E3G (GFI0016)

116 Q428 & Q429

117 Q434

118 <https://british-business-bank.co.uk/what-the-british-business-bank-does/>

119 <https://british-business-bank.co.uk/what-the-british-business-bank-does/>

120 <https://british-business-bank.co.uk/budget-2017/>

role in delivering the Government's Industrial Strategy is currently limited to correcting regional imbalances in small business funding and supporting companies to innovate and grow.<sup>121</sup>

82. **The decision to privatise the Green Investment Bank after only three years of operation carries additional risks, given the potential loss of EIB funding and the Government's desire to build investment markets in natural capital. There is likely to be a continued case for development finance tied to the Government's green policy objectives—especially as we move in the coming years to decarbonise heat, transport and heavy industry. If the Government wants to use the British Business Bank to replace EIB investment in green infrastructure and clean energy projects it would require a refocusing of the Bank's remit and objectives.**

83. *The Government should set out how it intends to stimulate development finance for the decarbonisation of local heat, transport and heavy industry. The UK Government should negotiate to maintain our relationship with the European Investment Bank, which would allow riskier early stage green infrastructure projects in the UK continued access to development bank finance.*

## Development finance at a local level

84. We heard that local authorities often struggle to access development capital for their small scale low-carbon projects,<sup>122</sup> and that central government could do more to help them make a low carbon transition.<sup>123</sup> Polly Billington, Director of UK100, told us that local authorities struggle to access public finance because they do not have the capacity or expertise to access the various 'pots of money' available within different Government offices, such as the Office for Low Emission Vehicles (OLEV) or the Heat Networks Delivery Unit. She told us:

There is clearly a finance gap on clean energy. It is primarily an issue of development capital. As you point out, with the prospect of the UK leaving the European Union, the access to the kind of funding that has currently been available to local authorities is under threat. However, the development capital is important because, although Government has invested in individual technologies previously—and we have seen how that has prospered—what we actually need to do to transform the energy system overall to make it more resilient in the future, is local transformation. You need integrated projects at local level and the people who are going to be best placed to do that, because they have levers across a wide range of energy vectors, is the local authority.<sup>124</sup>

85. The scarcity of funding for local projects may be exacerbated following the sale of the GIB and the UK's withdrawal from the EU. We heard that the GIB had played an important role in financing local projects, such as converting street lighting from sodium

121 <https://british-business-bank.co.uk/industrial-strategy-showcases-increased-role-of-the-british-business-bank-to-help-finance-uk-innovation/>

122 UK100 (GFI0033)

123 Abundance Investment (GFI0014)

124 Q200

lamps to LED bulbs.<sup>125</sup> Local authorities have also been able to access European Regional Development Funds for low-carbon infrastructure projects, but will lose access to that European funding after the UK leaves the EU.<sup>126</sup>

**86. Local authorities and metro mayors could play a key role in financing small-scale low-carbon projects, reducing emissions and maximising the benefits of the transition to a low-carbon economy to their areas. At present, they lack the technical capacity to develop projects and to attract public and private finance. With the UK's withdrawal from the EU and the sale of the GIB, local authorities may find it even harder to attract finance for projects.**

*87. The Government should explore how to create partnerships with local authorities to provide technical and development expertise to enable more towns and cities to access finance for green projects. The Government should set out in its response to this report the concrete steps it will be taking to work with local government to increase access to green finance at a local level.*

### Utilising Dormant Assets

88. During our inquiry, we heard evidence that the Government could utilise dormant financial assets to boost investment. It was suggested to us that this could follow the model of Big Society Capital Ltd (BSC), which was founded in 2012 to enact the recommendations of the 2005 Commission on Unclaimed Assets, using the Dormant Bank and Building Society Accounts Act 2008. BSC received money from dormant UK bank accounts, which are bank accounts where the account holder cannot be found. Steve Waygood from Aviva suggested it may be possible to mobilise other dormant UK financial assets:

You will recall that Big Society Capital was created from the dormant assets in the banks, about £3.5 billion. You may be familiar with the fact—and we mentioned it briefly in our written evidence—that there is roughly £2 billion of dormant assets sitting in the UK fund management sector and the insurance sector—£2 billion. That is people who have either not understood what they did when they invested or perhaps have emigrated and died and we cannot find their estate, their estate cannot find us. [...] at the moment £2 billion is sitting there being managed for no one.<sup>127</sup>

89. He noted that fund managers will be charging a fee for managing dormant assets, and went on to say: ‘We could set up a fund, which co-invested with various development banks, pension funds, and insurance companies and so on, in direct solutions to sustainability challenges.’<sup>128</sup>

**90. There may be significant untapped resources in dormant UK financial assets in the UK fund management and the insurance sectors. While the first priority must always be to locate the owners of these assets, this is sometimes not possible. In these cases, dormant assets could be used to create an environment fund to support investment in low-carbon and sustainable development projects, and to create markets for natural capital, fund climate change adaptation and ecosystem preservation.**

125 Green Purposes Company (GFI0006)

126 UK100 (GFI0033)

127 Q68

128 Q70

## 4 Green Financial Products

91. During our inquiry we heard about the range of green financial products like green bonds, ISAs or mortgages that could potentially make more capital available for clean energy or environmental projects. The Government's Clean Growth Strategy promises to develop green mortgage products and work with the British Standards Institution to develop green and sustainable finance standards.<sup>129</sup>

### Green mortgages

92. In the Clean Growth Strategy, the Government pledged to 'work with mortgage lenders to develop green mortgage products that take account of the lower lending risk and enhanced repayment associated with energy efficient properties.'<sup>130</sup> The Green Finance Taskforce also recommended that Government 'provide short-term incentives to pump prime the green consumer loans and green mortgages markets'.<sup>131</sup>

93. The Grantham Institute questioned the assumptions underpinning the Government's pledge. It argues that the claim that energy-efficient households have lower mortgage default risk needs better empirical corroboration. It says robust empirical analysis on the relationship between energy efficiency and mortgage default is limited, with one US study from 2014 often cited.<sup>132</sup>

94. The Grantham Institute pointed out that there are several concerns with drawing conclusions from this study that would be applicable to the UK. Its primary concern is whether or not the study presents a sufficiently convincing case for causality—is higher energy efficiency indeed the cause of better repayment behaviour?<sup>133</sup> It cites evidence that energy efficiency measures tend to be adopted by those with higher incomes as well as those with greater concern for the environment. Sini Matikainen explained the Grantham Institute's concerns:

...the way the Clean Growth Strategy specifically focused on green mortgages and the lower interest rate, the lower mortgage default rate associated with it, especially siloed away from other energy efficiency considerations, is somewhat concerning. It would be better to think that lower interest rates might be part of an overall push towards energy efficiency but in some instances it might not be sufficient. The rental market is an interesting point. There is a large buy-to-let market in the UK, so the person who is paying the mortgage is not the one paying the energy bills. In that sense it might not have a lower credit default rate. The evidence for that is based on one study from the US, which is insufficient.<sup>134</sup>

95. We asked Barclays about this when it gave evidence because of the work it had done in packaging up and refinancing mortgages in energy efficient homes as a green bond. The Chair of Barclays Green Banking Council, Rhian-Mari Thomas, said that the bank's own

129 Department for Business Energy and Industrial Strategy, [Clean Growth Strategy](#) (October 2017)

130 Department for Business Energy and Industrial Strategy, [Clean Growth Strategy](#) (October 2017)

131 Green Finance Taskforce, [Accelerating Green Finance: a report to Government](#) (March 2018)

132 Grantham Institute (GFI0001)

133 Grantham Institute (GFI0001)

134 Q37

analysis had also shown a correlation between loan-performance and a home's energy efficiency rating. She said Barclays would need to do more analysis and look more closely at the causality and the precise reasons.<sup>135</sup> However, she added that:

A green mortgage in itself is unlikely to be the panacea. It needs to be part of a broader group of products, for example green consumer loans, to support energy efficiency retrofits, such that people can apply for a green mortgage almost as an aspiration.<sup>136</sup>

**96. Any policy to promote green mortgages must be based on robust evidence from multiple sources. Government policy should not be made on the basis of one US study. To avoid repeating the policy failures of the Green Deal, it is also important to be realistic about the impact and potential take up of green mortgages. It may well be that improvements in the energy efficiency of the UK's housing stock can be more efficiently achieved with other measures—such as building regulations like the Zero Carbon Homes policy scrapped in 2015, or the Mayor of London's boiler scrappage scheme.**

## Green bonds

97. During 2017 there were 27 green bonds listed in London, raising \$10.9 billion compared to 14 green bonds in 2016 that raised \$5.65 billion. In November alone there were seven green bonds listed in London by Australian, Danish, Finnish, Indian, Japanese and UK institutions.<sup>137</sup> We heard that bonds can provide the long-term, stable investment returns which institutional investors need. Since the Paris Agreement, there has been rapid growth in the number of bonds labelled as 'green' listed on the London Stock Exchange. In 2017, there was a 92 per cent growth in green bonds listed on the London Stock Exchange and a 78 per cent increase in money raised.<sup>138</sup>

**A bond** is a fixed income investment. By buying a bond an investor in effect loans money to the issuer (typically corporate or governmental) for a defined period of time at a variable or fixed interest rate. Bonds are used by companies, municipalities, and sovereign governments to raise money and finance a variety of projects and activities. Owners of bonds are debtholders, or creditors, of the issuer.<sup>139</sup>

**Green bonds** can allow financial institutions or the owners of assets to refinance existing 'green' projects, potentially making more capital available for further green investment.

98. Despite London's success in attracting the listing of green bonds, the UK is lagging well behind other leading economies when it comes to the domestic issuance of green bonds. There has been only \$3.9 billion of issuance in the UK compared with \$24.9 billion

135 Q49

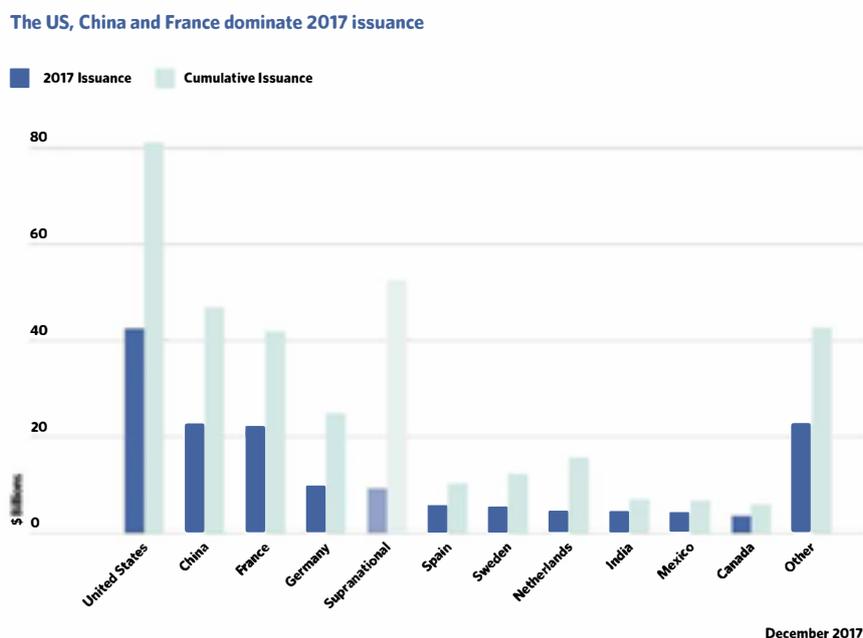
136 Q50

137 London Stock Exchange Group (GF10021)

138 London Stock Exchange Group (GF10021)

139 <https://www.investopedia.com/terms/b/bond.asp>

from Germany and \$41 billion issued in France.<sup>140</sup> The Climate Bonds Initiative has provided the graph below, ranking countries according to their cumulative issuance of green bonds. The UK does not make the top ten.



99. In November 2017, Barclays became the first UK bank to issue a green bond, raising €500 million on the London Stock Exchange. Barclays says its proceeds will be used to finance and refinance mortgages on residential mortgages on properties in England and Wales based on the overall carbon intensity of the underlying property. In December, Barclays launched a further suite of Green Finance products, including loans specifically targeted at green projects and green innovation finance backed by the European Investment Fund, aimed at providing funding for small and medium enterprises.<sup>141</sup>

100. We heard calls from Barclays and the London Stock Exchange for tax breaks and incentives to encourage greater green bond issuance in the UK.<sup>142</sup> In its submission, the London Stock Exchange Group argued that fiscal incentives and exemptions would support the UK's status as a destination for green bond issuance. It suggested:

- **Removing stamp duty from green bonds**—mirroring policy moves previously taken to abolish stamp duty on shares sold by smaller companies on the AIM market;
- **Offering grants for the verification process of the green bond**, which is already being offered in other fixed income markets such as Singapore;
- **Incentivising issuers to allocate a tranche of their green bonds to retail investors**, using tax relief or subsidy as mentioned in the two previous suggestions.<sup>143</sup>

140 Email to the committee from the Climate Bonds Initiative (January 2018)

141 [https://newsroom.barclays.com/r/3559/barclays\\_launches\\_pioneering\\_range\\_of\\_green\\_corporate](https://newsroom.barclays.com/r/3559/barclays_launches_pioneering_range_of_green_corporate)

142 Q78

143 London Stock Exchange Group (GFI0021)

101. Steve Waygood from Aviva, however, was sceptical about the value of green bonds as a means of mobilising capital into green infrastructure:

I believe green bonds are also a distraction to some extent. We need to bear in mind that they are refinancing mechanisms almost all the time, so the infrastructure already exists. It is important that they can refinance and lower their cost of capital, but people look at the £100 billion green bond market and assume that £100 billion has gone into green infrastructure that year. It is not the case.<sup>144</sup>

102. On 28 March 2018, the industry-led Green Finance Taskforce established by the Clean Growth Strategy published a report recommending that the UK Government should follow France in issuing a Sovereign Green Bond.<sup>145</sup> The Taskforce says that a UK Sovereign Green Bond Framework should be designed to reflect the targets set out in the Clean Growth Strategy and 25-Year Environment Plan ‘and channel low-cost, patient capital towards selected qualifying green projects’.<sup>146</sup> The Taskforce highlighted that it must be made clear that the proceeds ‘amount to additional sources of capital, invested in new green projects that might otherwise not have been funded’.<sup>147</sup>

### **Standards for green bonds**

103. To list on the London Stock Exchange, green bond issuers are currently required to provide independent certification by an experienced third-party certification provider, but there are other green bonds that are self-certified.<sup>148</sup> Several submissions pointed to the need for better certification and data to demonstrate the environmental credentials of green bonds. WWF argued that some form of sustainability disclosure was required on the bond market in order to evaluate the additionality achieved by green bonds.<sup>149</sup> It has previously warned that a lack of agreed standards has led to the risk of ‘greenwashing’ where bonds labelled as green only achieve minor or ‘in fact no actual environmental benefits’.<sup>150</sup>

**Additionality** refers to the extent to which something happens as a result of an intervention that would not have occurred in its absence.<sup>151</sup>

104. The Institute for Sustainable Resources at University College London said that more reliable and detailed data disclosure is required to boost the development of the green bond market.<sup>152</sup> It said that the MSCI Green Bonds Index is the only credible green bond index, as many others rely on whether the issuer calls a bond ‘green’ or not. It warned

144 Q77

145 Green Finance Taskforce, [Accelerating Green Finance: A report to Government by the Green Finance Taskforce](#) (March 2018)

146 Green Finance Taskforce, [Accelerating Green Finance: A report to Government by the Green Finance Taskforce](#) (March 2018)

147 Green Finance Taskforce, [Accelerating Green Finance: A report to Government by the Green Finance Taskforce](#) (March 2018)

148 Q375

149 WWF (GF10022)

150 <https://www.wwf.org.uk/updates/wwf-calls-industry-standards-green-bond-market-bolster-sustainable-economy>

151 <https://www.gov.uk/government/publications/additionality-guide>

152 Institute for Sustainable Resources, University College London (GF10020)

that the Green Bond Principles only provides an indicative list of what constitutes ‘green’. It says that further standardisation of green bond definitions, structures and reporting would be beneficial for three reasons:

- To provide transparency and understanding of what green bonds are, allowing for appropriate assessment of risk/return profiles by investors
- To allow for the development of credible green bond labels and indices
- To allow greater aggregation of bonds, reducing transaction costs and spreading risks<sup>153</sup>

105. The Climate Bonds Initiative talked about the importance of certification during the first hearing for this inquiry:

**Diletta Giuliani:** We have found that green bonds are a great way to start a whole green finance strategy. When we look at green bonds, it immediately calls for green labelling, a definition of what is green, which is the first step in implementing any green finance strategy.<sup>154</sup>

106. The London Stock Exchange Group argued that while robust certification was important, overburdening business could be counterproductive:

**David Harris:** There is a difficult balancing act here. On the one hand, what is really important is that you have credibility around the green bonds standards. You also need not to overburden green bond issuers. Because, if you make the requirements too onerous and costly, it becomes too expensive and they won’t bother. [...] The approach we are taking to ensure that we have got credibility behind green bond issuance is that to be admitted on to the green bond segments of the LSE you have to have independent certification.<sup>155</sup>

107. In March 2018, the EU published its Action Plan on Sustainable Finance, drawing on the recommendations of the High-Level Expert Group (HLEG) on Sustainable Finance. The Action Plan proposes a number of reforms that are relevant to the UK Government’s ambitions in the Clean Growth Strategy. For example the EU plans to:

- Develop a **common sustainable finance classification system**—or taxonomy—to establish market clarity on what is ‘green’ and identify areas where sustainable investment can make the biggest impact.
- Create **EU labels for green financial products** on the basis of this EU classification system that will allow investors to easily identify investments that comply with green or low-carbon criteria.<sup>156</sup>

---

153 Institute for Sustainable Resources, University College London (GF10020)

154 Q32

155 Q375

156 European Commission, [Action Plan: Financing Sustainable Growth](#) (March 2018)

108. In its submission, the Government said that:

Efforts to align the EU and UK green finance agenda have already positively translated into more targeted UK green finance policy. For example, the UK has commissioned the British Standards Institution (BSI) to develop the world's first green finance management standards. The BSI will specifically not be developing 'green' taxonomies as part of this work, in recognition of the progress already being made in this area by the EU HLEG.<sup>157</sup>

A **standard** is an agreed way of doing something, such as making a product, managing a process, or delivering a service. Standards are voluntary and are not the same as regulations. The point of a standard is to provide a reliable basis for people to share the same expectations about a product or service.<sup>158</sup>

109. Aviva's Steve Waygood praised the Government announcement on standards:

One of the things that I would applaud in the Clean Growth Strategy is the reference to the British Standards Institution creating a set of standards for sustainable finance, so that the end investor can see whether their financial investments are sustainable. Think of it as a 'Fairtrade for finance'. We have seen what happened to the coffee sector and chocolate and others, where a standard is created it actually gives voice to a mechanism for the latent demand that we know to be out there. It gives them a quick and easy way of seeing whether the claims that people are making here—and there are a huge number of claims by financial institutions for being sustainable—the standard enables the end consumer to know whether it is true or not.<sup>159</sup>

110. Standards, such as those developed by the British Standards Institution (BSI), provide an established non-statutory mechanism for credible and robust reporting on environmental performance.<sup>160</sup> One example of this is the internationally agreed environmental management standard ISO 14001, which is designed to help organisations improve environmental performance through more efficient use of resources and reduction of waste.<sup>161</sup>

111. Given the Clean Growth Strategy's pledge that the Government would be working with the BSI on green finance standards, we were surprised to hear the Economic Secretary to the Treasury John Glen MP explain that the Government does not plan to develop standards for green bonds:

There seems to be a number of market initiatives to examine and set out what a green bond looks like. There are no plans at the moment to develop new regulatory and definitional properties of a green bond.<sup>162</sup>

157 HM Treasury and BEIS (GFI0028)

158 <https://www.bsigroup.com/en-GB/standards/Information-about-standards/what-is-a-standard/>

159 Q62

160 British Standards Institute (ENP0070)

161 British Standards Institute (ENP0070)

162 Q440

112. If green bonds make additional capital available for low-carbon or sustainable projects then they could have transformational public benefits. We can therefore see a case for incentives to encourage financial institutions and owners of UK assets to issue green bonds, but only once clearly defined standards are in place. It is crucial that investors and policy makers can have confidence in green bonds, before taxpayers' money is used to subsidise bond issuance by financial institutions.

113. *Ministers must outline a timetable for the introduction of authoritative standards on green financial products—including bonds—that can give investors' confidence they provide additional green benefits. Liaising with our EU partners will be necessary to ensure that the UK's efforts in this cohere with the proposals set out in the Commission's Action Plan on Sustainable Finance. If Europe-wide standards are adopted, it would make sense to continue to utilise them after we leave the EU.*

114. The Green Finance Taskforce's proposal of issuing a Sovereign Green Bond to drive investment into clean growth presents a good opportunity for the Government to set a benchmark of good practice and high standards for domestic issuance of green bonds. If additionality is ensured then this could be a useful mechanism to direct investment into projects to deliver our carbon budgets and other environmental objectives. It may have a greater role to play if a future relationship with the EIB cannot be negotiated.

115. *The Government should explore how a Sovereign Green Bond could be directly tied to achieving its Clean Growth Strategy and include its analysis in the delivery plan it must bring forward in time for Budget 2018 to show how it intends to plug the shortfall in achieving our fourth and fifth carbon budgets.*

# Conclusions and recommendations

---

## The Investment Challenge

1. The UK has made impressive progress in reducing the carbon intensity of the UK power sector and driving investment in clean energy. But our predecessor committee warned in 2016 that sudden changes to policy had undermined investor confidence and could have an impact on the pipeline of projects in development. Recent figures for cash investment confirm that there has been a dramatic and worrying collapse in clean energy investment since 2015. Sudden policy changes have clearly played a significant part. We hope that this proves to be a temporary dip, but the fall in clean energy investment in 2017 is concerning because of the potential implications for our longer-term carbon reduction plans: we are only five years away from the start of the fourth carbon budget period (2023) and ten years away from the fifth (2028 to 2032). (Paragraph 26)
2. To meet these targets, low-carbon energy projects need to be in development now, given the long lead-in times involved. The rapidly falling cost of generating electricity from renewables, like wind and solar, should mean that the UK is able to deliver greater clean energy capacity at lower prices. However, policy changes have dented investor confidence and curtailed the support available to new low carbon projects. The Government needs to restore confidence and provide a stable policy environment to deliver a pipeline of projects. (Paragraph 27)

## Policies to secure investment

3. We are encouraged by the cross-Departmental ambition of the Government's Clean Growth Strategy. However, in many areas the detail is lacking. Aspirations alone are not enough to redirect investment away from high carbon to lower carbon alternatives. Indeed, the Government's independent advisers, the Committee on Climate Change, have warned of a policy gap that will lead to a shortfall in the fourth (2023–2027) and fifth (2028–2032) carbon budgets even if the Strategy's policies are 'interpreted generously' and delivered in full. (Paragraph 39)
4. *Given that these budgets are only a few years away, Ministers must urgently plug this policy gap and publish a delivery plan to secure the investment needed to meet the fourth and fifth carbon budgets—without relying on carrying over a surplus from previous budgets. It is imperative that the Government responds to the Green Finance Taskforce's recommendations promptly and produces a delivery plan in time for the 2018 Budget to show how it intends to deliver the Clean Growth Strategy. Ensuring that we are on track to meet our current carbon budgets is even more important now that the Government has asked the Committee on Climate Change to explore how to strengthen the UK's greenhouse gas targets in the light of the 2015 Paris Agreement aspiration to limit temperature rises to 1.5 degrees.* (Paragraph 40)
5. Given the disruption and policy uncertainty of the last three years, the Treasury must ensure that its attempts to keep costs down for consumers do not exacerbate the current dip in clean energy investment. *The Government should launch a*

*consultation before the next round of CfD auctions in 2019 to explore how it can continue to encourage new low-carbon generation with fixed-price contracts in the early 2020s, while keeping costs down for consumers. (Paragraph 47)*

6. The future of both of the UK's carbon pricing policies are at risk, on the one hand from Brexit and on the other from the lack of Government commitment to use carbon pricing to drive decarbonisation in the power sector after unabated coal is phased out. Carbon pricing has been extremely effective at driving investment away from carbon-intensive forms of generating electricity. We heard evidence that a carbon price would be an effective way to drive decarbonisation in other sectors of the economy. Long-term clarity about the future level of that price would allow businesses and investors to plan for the transition to a low-carbon economy. (Paragraph 52)
7. *Ministers should set out a trajectory to gradually increase the carbon price—starting after the current freeze on Carbon Price Support comes to an end in 2021—to continue driving investment away from fossil fuel based electricity generation. The Government should also carry out an assessment to consider how extending carbon pricing to cover the whole economy could help us meet our climate change targets. (Paragraph 53)*

## Development finance

8. We are pleased to have secured protections for the Bank's green purposes with the Special Share we recommended. However, we are concerned that the Green Investment Group's new international focus may mean less direct green investment in the UK. It is too early to say whether the sale of the Green Investment Bank has left an investment gap in the UK, but only one of the GIG's first four investments has been located here. (Paragraph 65)
9. We do not accept the Government's assertion that the market failures the Green Investment Bank was set up to address have been resolved. The previous Committee was unconvinced by the case for privatisation of the Green Investment Bank at the time. Now that the GIG is operating as a private company it is no longer bound to support Government objectives and is likely to invest in lower risk projects. (Paragraph 74)
10. The decision to privatise the Green Investment Bank after only three years of operation carries additional risks, given the potential loss of EIB funding and the Government's desire to build investment markets in natural capital. There is likely to be a continued case for development finance tied to the Government's green policy objectives—especially as we move in the coming years to decarbonise heat, transport and heavy industry. If the Government wants to use the British Business Bank to replace EIB investment in green infrastructure and clean energy projects it would require a refocusing of the Bank's remit and objectives. (Paragraph 82)
11. *The Government should set out how it intends to stimulate development finance for the decarbonisation of local heat, transport and heavy industry. The UK Government should negotiate to maintain our relationship with the European Investment Bank, which would allow riskier early stage green infrastructure projects in the UK continued access to development bank finance. (Paragraph 83)*

12. Local authorities and metro mayors could play a key role in financing small-scale low-carbon projects, reducing emissions and maximising the benefits of the transition to a low-carbon economy to their areas. At present, they lack the technical capacity to develop projects and to attract public and private finance. With the UK's withdrawal from the EU and the sale of the GIB, local authorities may find it even harder to attract finance for projects. (Paragraph 86)
13. *The Government should explore how to create partnerships with local authorities to provide technical and development expertise to enable more towns and cities to access finance for green projects. The Government should set out in its response to this report the concrete steps it will be taking to work with local government to increase access to green finance at a local level.* (Paragraph 87)
14. There may be significant untapped resources in dormant UK financial assets in the UK fund management and the insurance sectors. While the first priority must always be to locate the owners of these assets, this is sometimes not possible. In these cases, dormant assets could be used to create an environment fund to support investment in low-carbon and sustainable development projects, and to create markets for natural capital, fund climate change adaptation and ecosystem preservation. (Paragraph 90)

### Green Financial Products

15. Any policy to promote green mortgages must be based on robust evidence from multiple sources. Government policy should not be made on the basis of one US study. To avoid repeating the policy failures of the Green Deal, it is also important to be realistic about the impact and potential take up of green mortgages. It may well be that improvements in the energy efficiency of the UK's housing stock can be more efficiently achieved with other measures—such as building regulations like the Zero Carbon Homes policy scrapped in 2015, or the Mayor of London's boiler scrappage scheme. (Paragraph 96)
16. If green bonds make additional capital available for low-carbon or sustainable projects then they could have transformational public benefits. We can therefore see a case for incentives to encourage financial institutions and owners of UK assets to issue green bonds, but only once clearly defined standards are in place. It is crucial that investors and policy makers can have confidence in green bonds, before taxpayers' money is used to subsidise bond issuance by financial institutions. (Paragraph 112)
17. *Ministers must outline a timetable for the introduction of authoritative standards on green financial products—including bonds—that can give investors' confidence they provide additional green benefits. Liaising with our EU partners will be necessary to ensure that the UK's efforts in this cohere with the proposals set out in the Commission's Action Plan on Sustainable Finance. If Europe-wide standards are adopted, it would make sense to continue to utilise them after we leave the EU.* (Paragraph 113)
18. The Green Finance Taskforce's proposal of issuing a Sovereign Green Bond to drive investment into clean growth presents a good opportunity for the Government to set a benchmark of good practice and high standards for domestic issuance of green

bonds. If additionality is ensured then this could be a useful mechanism to direct investment into projects to deliver our carbon budgets and other environmental objectives. It may have a greater role to play if a future relationship with the EIB cannot be negotiated. (Paragraph 114)

19. *The Government should explore how a Sovereign Green Bond could be directly tied to achieving its Clean Growth Strategy and include its analysis in the delivery plan it must bring forward in time for Budget 2018 to show how it intends to plug the shortfall in achieving our fourth and fifth carbon budgets.* (Paragraph 115)

## Formal minutes

---

**Tuesday 1 May 2018**

Members present.

Mary Creagh, in the Chair

Colin Clark	Caroline Lucas
Geraint Davies	Kerry McCarthy
Mr Philip Dunne	Dr Matthew Offord
Zac Goldsmith	Joan Ryan
Mr Robert Goodwill	

Draft Report (*Green finance: mobilising investment in clean energy and sustainable development*), proposed by the Chair, brought up and read.

Paragraphs 1 to 115 read and agreed to.

Summary agreed to.

*Resolved*, That the Report be the Sixth Report of the Committee to the House.

*Ordered*, That the Chair make the Report to the House.

*Ordered*, That embargoed copies of the Report be made available, in accordance with the provisions of Standing Order No. 134.

[The Committee adjourned

## Witnesses

The following witnesses gave evidence. Transcripts can be viewed on the [inquiry publications page](#) of the Committee's website.

### Tuesday 16 January 2018

*Question numbers*

**Alex White**, Senior Policy Officer, Aldersgate Group; **Diletta Giuliani**, Climate Bonds Initiative; **Dustin Benton**, Policy Director, Green Alliance; and **Sini Matikainen**, Research Fellow, Grantham Institute on Climate Change and the Environment.

[Q1–42](#)

**Angus McCrone**, Chief Editor, Bloomberg New Energy Finance; **Steve Waygood**, Chief Responsible Investment Officer, Aviva; and **Rhian-Mari Thomas**, Chair Green Banking Council, Barclays.

[Q43–90](#)

### Tuesday 23 January 2018

**Lord Teverson**, Trustee, Green Purposes Company and **Peter Young**, Trustee, Green Purposes Company.

[Q91–125](#)

**Edward Northam**, Head of the Green Investment Group.

[Q126–196](#)

### Tuesday 6 February 2018

**Alice Garton**, Company and Financial Project Leader, Client Earth; **Dr Ben Caldecott**, Oxford Sustainable Finance Programme; **Russell Picot**, Chair of the Trustee board of the HSBC Bank (UK) Pension Fund; and **Polly Billington**, Director, UK100.

[Q126–237](#)

**Emma Howard-Boyd**, Chair of the Environment Agency; **Diandra Soobiah**, Head of Responsible Investment, NEST; and **Will Fox-Robinson**, Director, UK Institutional Business and Head of LGPS, Natixis Investment Managers.

[Q238–279](#)

### Tuesday 20 February 2018

**Lord Turner of Echinswell**, chair of the Institute for New Economic Thinking and of the Energy Transitions Commission.

[Q280–309](#)

**Sarah Breeden**, Executive Director, Bank of England; **Stephen Haddrill**, Chief Executive, The Financial Reporting Council; **David Harris**, Group Head of Sustainable Business at London Stock Exchange Group; **David Geale**, Director of Policy, The Financial Conduct Authority; and **Anthony Raymond**, Acting Executive Director of Regulatory Policy, Analysis and Advice and General Counsel, The Pensions Regulator.

[Q310–384](#)

### Wednesday 21 February 2018

**Rt Hon Claire Perry MP**, Minister for Energy and Clean Growth, BEIS; **John Glen MP**, Economic Secretary to the Treasury; **Fiona Walker**, Deputy Director in Private Pensions and Head of Automatic Enrolment and Defined Contribution, Department for Work and Pensions; and **Catherine Bremner**, Transformation Director, BEIS.

[Q385–508](#)

## Published written evidence

---

The following written evidence was received and can be viewed on the [inquiry publications page](#) of the Committee's website.

GFI numbers are generated by the evidence processing system and so may not be complete.

- 1 Abundance Investment ([GFI0014](#))
- 2 Aldersgate Group ([GFI0003](#))
- 3 Aviva Plc ([GFI0024](#))
- 4 Bank of England ([GFI0038](#))
- 5 Barclays ([GFI0028](#))
- 6 Carbon Tracker Initiative ([GFI0005](#))
- 7 Christian Aid ([GFI0015](#))
- 8 ClientEarth ([GFI0012](#))
- 9 Climate Disclosure Standards Board ([GFI0008](#))
- 10 Committee on Climate Change ([GFI0004](#))
- 11 Confor—promoting forests and wood ([GFI0032](#))
- 12 Department for Work and Pensions ([GFI0037](#))
- 13 Durham University Business School ([GFI0036](#))
- 14 Grantham Research Institute ([GFI0001](#))
- 15 Green Alliance ([GFI0011](#))
- 16 Green Purposes Company ([GFI0006](#))
- 17 HM Treasury ([GFI0027](#))
- 18 IEEFA ([GFI0026](#))
- 19 Iken Culmer Raphael ([GFI0010](#))
- 20 London Stock Exchange Group ([GFI0021](#))
- 21 Martin Blaiklock ([GFI0009](#))
- 22 NextEnergy Capital ([GFI0031](#))
- 23 Overseas Development Institute ([GFI0018](#))
- 24 Oxford Sustainable Finance Programme ([GFI0034](#))
- 25 Positive Money ([GFI0023](#))
- 26 Principle for Responsible Investment ([GFI0029](#))
- 27 Royal Society for the Protection of Birds (RSPB) ([GFI0017](#))
- 28 ShareAction ([GFI0013](#))
- 29 SRI Services ([GFI0025](#))
- 30 Third Generation Environmentalism Ltd. (E3G) ([GFI0016](#))
- 31 UCL Institute for Sustainable Resources ([GFI0020](#))
- 32 UK100 ([GFI0033](#))
- 33 UKSIF ([GFI0002](#))
- 34 WWF-UK ([GFI0022](#))List of Reports from the Committee during the current Parliament

All publications from the Committee are available on the [publications page](#) of the Committee's website. The reference number of the Government's response to each Report is printed in brackets after the HC printing number.

### Session 2017–19

First Report	Plastic bottles: Turning Back the Plastic Tide	HC 339
Second Report	Disposable Packaging: Coffee Cups	HC 657
Third Report	The Ministry of Justice: Environmental Sustainability	HC 545
Fourth Report	Improving air quality	HC 433
Fifth Report	UK Progress on Reducing F-gas Emissions	HC 469
First Special Report	The Future of Chemicals Regulation after the EU Referendum: Government Response to the Committee's Eleventh Report of Session 2016–17	HC 313
Second Special Report	Marine Protected Areas Revisited: Government Response to the Committee's Tenth Report of Session 2016–17	HC 314
Third Special Report	Sustainable Development Goals in the UK: Government Response to the Committee's Ninth Report of Session 2016–17	HC 616
Fourth Special Report	Plastic bottles: Turning Back the Plastic Tide: Government Response to the Committee's First Report	HC 841
Fifth Special Report	Disposable Packaging: Coffee Cups: Government's Response to the Committee's Second Report	HC 867