



House of Commons
Committee of Public Accounts

Support for innovation to deliver net zero

**Seventy-Ninth Report of Session
2022–23**

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

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The Committee of Public Accounts

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Contacts

All correspondence should be addressed to the Clerk of the Committee of Public Accounts, House of Commons, London SW1A 0AA. The telephone number for general enquiries is 020 7219 5776; the Committee's email address is pubacom@parliament.uk.

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Summary

Creating the right environment for research and innovation to succeed is vital if the UK is to achieve net zero by 2050. Businesses need to have confidence to invest in developing new technologies and bring them to market. There is also the potential to deliver valuable exports for the UK and for the creation of tens of thousands of new jobs. In October 2021, The Government published its Net Zero Research and Innovation Framework (the Framework), setting out for the first time the 31 technology challenge areas it intends to support and the timescales within which it expects technological solutions to be delivered. The challenge for government now is to target its cross-government support effectively to help the research community and businesses develop and deploy new technologies that consumers will want to buy and adopt quickly. However, we are not yet convinced that The Government's delivery plans match the ambitions set out in the Framework.

The Government has allocated £4.2 billion of funding for net zero research and innovation up to 2025. But it is difficult for businesses to know what funding is available and from where, with support being delivered through 115 funding programmes across government. In terms of the private sector, The Government estimates a significant increase in external investment to deliver net zero. The Government expects that overall low-carbon investment will need to increase in total from an estimated £23 billion in 2022 to between two to three times that level per year through the late 2020s and into the 2030s, with most of this increase coming from the private sector. Yet the Government itself has made few public sector funding commitments in its delivery plan beyond 2025, providing little comfort for investors in the medium to longer-term, particularly in the context of the government's announcement in September 2023 to delay the phasing out of new fossil fuel vehicles and heating systems.

Investment in innovation always involves risk. The Government must be prepared to act quickly to support promising technologies and to reduce support if a technology shows little promise. Responsibility for overseeing the individual net zero innovation priorities is siloed across numerous government bodies, and the Government has not defined what success might look like for each of the challenge areas in the medium or longer term, which will make it difficult to determine whether progress is on track.

Introduction

In June 2019, Parliament passed an amendment to the Climate Change Act 2008 committing the UK to achieving net zero emissions by 2050. This will require the UK to reduce substantially its emissions from current levels, and the Government expects technological innovation to play a crucial part in the UK achieving this. In October 2021, The Government published its Net Zero Innovation Framework, setting out for the first time the 31 technology challenge areas it intends to support and the timescales within which it expects technological solutions to be delivered. In March 2023, the Government followed up the Framework with a delivery plan, setting out how government will prioritise investment into net zero innovation. The delivery plan set out £4.2 billion of government support, to be delivered across eight government departments, for the period from 2022 to 2025.

The newly formed Department for Energy Security & Net Zero (DESNZ) has responsibility for net zero policy, while the newly created Department for Science, Innovation & Technology (DSIT) has responsibility for supporting research and innovation and creating the underlying conditions for it to succeed. A host of public bodies may be involved in supporting the development and deployment of new technologies. This can range from UK Research and Innovation (UKRI) providing funding for research and the early stages of innovation, through to departmental policy teams creating the conditions to support market deployment, working with regulators and, for example, the UK Infrastructure Bank and British Business Bank.

Conclusions and recommendations

1. **Too often The Government's plans for supporting the progression of net zero technologies are short-term, which risks jeopardising efforts to attract the large amounts of private investment needed to achieve net zero by 2050.** When designing the Framework, the government did not consider what level of longer-term public sector investment might be required up to 2050 to support delivery of the 31 innovation technology challenge areas. Some commentators have suggested that many of the challenge areas will require longer-term financial investment from both the public and private sectors. The Government's delivery plan, however, only reflects funding for the Spending Review period from 2022 to 2025. This provides little comfort for investors in the medium to longer-term, particularly in the context of the government's announcement in September 2023 to delay the phasing out of new fossil fuel vehicles and heating systems. HM Treasury says that the next Spending Review will be an opportunity to reassess plans. DESNZ estimated in its 2023 Green Finance Strategy that new low-carbon investment in 2022 in the UK from the public and private sectors totalled £23 billion. It expects this will need to increase to around two to three times that level per year through the late 2020s and 2030s and that most of this increase will need to come from the private sector. The Government has announced longer-term support for Carbon Capture, Utilisation and Storage beyond the current spending period, but this remains the exception rather than the rule.

Recommendation 1: *DESNZ, working with the Treasury, should set out its plans for supporting priority technologies beyond the confines of the spending review period, including, where appropriate, potential funding support. It should explain how recent announcements to delay the phasing out of new fossil fuel vehicles and heating systems will impact on costs.*

2. **The Government is dependent on businesses delivering successful innovation to reach net zero, but too often it is difficult for businesses to know what support is available and how to access it.** The Government is providing £4.2 billion of support for net zero research and innovation to 2025 through 115 funding programmes across eight government departments. The funding arrangements are complex because of the number of institutions and different geographies involved. DSIT tells us that it has no regrets about the large number of funding programmes, preferring to focus on trying to make them accessible and understandable for those businesses and other bodies seeking support. Innovate UK has recently launched the latest version of its Innovation Hub, which we are told will serve as a "front door" for helping businesses understand what support might be available. But it is too early to assess whether this Innovation Hub has made it easier for businesses to find government support for net zero research and innovation.

Recommendation 2: *Ahead of the next Spending Review, the Treasury, working with DESNZ and DSIT, should take the opportunity to review whether the current complex funding arrangements, which largely pre-date the development of the Innovation Framework, are best suited to supporting the fast-paced innovation needed to deliver many aspects of net zero.*

3. **We are not convinced that the Government is paying sufficient attention to the practical challenges consumers can face in adopting low carbon technologies and how to overcome them.** The Government selected the technology areas included in the Innovation Framework based on the opportunity to deliver major decarbonisation gains, the potential for major business opportunities for UK companies and the desire to create options for how to reach net zero. However, we are concerned that technology development may take priority without giving sufficient attention to the practical challenges consumers might face. DESNZ says it sought to maximise opportunities for consumers to take part in technology development. However, it is not clear that government is giving timely consideration to how the take-up of new technologies is best supported. The challenges can be significant, for example, ensuring an adequate charging network to support the projected rapid expansion in the use of electric cars. The Government also has no research programme focusing on the behavioural change that will be needed to complement the deployment of technologies included in the net zero innovation delivery plan.

Recommendation 3: *When it next reviews progress against the innovation priorities, DESNZ, working with other government departments, should commit to assessing specifically the challenges consumers might face in adopting new technologies and whether these are being adequately addressed when re-assessing priorities.*

4. **Despite the Government's ambition to have an effective end-to-end innovation system, responsibility for overseeing progress is siloed, making it difficult to assess progress across each of the priority technology areas.** No single person or organisation has responsibility for overseeing the performance of government support for the end-to-end innovation system. Without such oversight, there is a risk that support is not targeted effectively at the right innovation stages, that barriers to market deployment are not addressed quickly, and that businesses and the research community lack a clear focal point for providing feedback. DESNZ says that there is already a lot of joint working, and has put in place a governance and oversight process through the Net Zero Innovation Board, supported by the Innovation Delivery Board. However, it acknowledges that there is more to do, in particular to bridge the boundary between research and innovation on the one hand and deployment and commercialisation on the other.

Recommendation 4: *DESNZ, working with other departments, should identify clear responsibilities for overseeing cross-government progress on each of the net zero technologies. These responsibilities should include paying particular attention to whether factors that might impede deployment of viable technologies are being given early enough attention, for example by policy teams, regulators and the investment community.*

5. **The Government has not yet defined what success will look like for the main net zero technology challenge areas and therefore lacks benchmarks with which to judge whether progress remains on track.** It is vital that desired outcomes are clearly defined to enable government and Parliament to assess whether progress in the individual innovation challenge areas are on track to contribute to the UK achieving net zero. DESNZ, with other departments, has started to establish a process for monitoring progress systematically across the Framework but it has still

to define what outcomes, such as carbon reductions and business opportunities, it is seeking to support. It is still too focused on what individual projects are delivering rather than the bigger picture. Without clear benchmarks it will be more difficult to judge whether the support it is providing is working and whether further action is needed.

Recommendation 5: *Government should define the outcomes, rather the outputs, that it is hoping to deliver from each technology in the short, medium and longer-term to enable it to benchmark progress and ensure that taxpayer support continues to be well targeted.*

6. **A well-run innovation programme always carries with it the risk of failure, but government has yet to define what failure is tolerable overall before its net zero objectives are jeopardised.** We recognise that innovation involves a degree of risk and that a successful innovation portfolio will include both failures as well as breakthroughs. DESNZ, with other government departments, have yet to define what level of failure it could tolerate across the Framework, instead placing reliance on risk management by departments at the individual programme level. Each funding programme will have a business case including an assessment of risk. DESNZ says it has set a risk appetite for these sort of activities – ranging from medium to very high. However, the Innovation Framework does not include a clear assessment of risk against each of the priority technology areas.

Recommendation 6: *In reporting on progress on the priority technologies, government should include its assessment of which technologies are likely to deliver within the timescales required and those it regards as higher risk.*

7. **There is no clear mechanism for reporting publicly progress in each of the priority technology areas.** Government uses its overall Net Zero Strategy to report on the overall approach and progress to net zero but acknowledges this will not give all the detail that Parliament needs on progress in the priority technology areas. Some of the investment includes projects on the Government Major Projects Portfolio, for example the Net Zero Hydrogen Fund, and in those instances, performance is reported publicly. However, these projects account for only a small number of the technologies in the Innovation Framework. As we have previously recommended in relation to net zero, the Government needs to report progress to the public in a user-friendly way that details where we are against our net zero goals, whether we are on track and, if not, how much we still have to do.

Recommendation 7: *For each of the technology areas, the Government should report publicly on progress against the measures of success that it has defined, to make it visible whether the initial expectations are being met.*

1 Supporting the delivery of new technologies

1. On the basis of a report by the Comptroller and Auditor General, we took evidence from the Department for Energy Security and Net Zero (DESNZ) and the Department for Science, Innovation and Technology (DSIT) about net zero innovation. We also took evidence from HM Treasury.¹

2. In June 2019, Parliament passed an amendment to the Climate Change Act 2008, committing the UK to achieving net zero emissions by 2050. This will require the UK to reduce substantially its emissions from current levels, and the Government expects research and innovation to play a crucial part in the UK achieving this². In October 2021, the Government published its Net Zero Innovation Framework, setting out for the first time 31 chosen net zero technology areas across seven categories that it intends to support and the timescales within which it expects technological solutions to be delivered. In March 2023, the Government followed up the Framework with a delivery plan, setting out how government will prioritise investment into net zero innovation³. In total, the delivery plan detailed £4.2 billion of support to be delivered across eight government departments for the period from 2022 to 2025.⁴

3. The newly formed DESNZ has responsibility for net zero policy, while the newly created DSIT has responsibility for supporting research and innovation and creating the underlying conditions for it to succeed. A host of public bodies may be involved in supporting the development and deployment of new technologies. This can range from UK Research and Innovation (UKRI) providing funding for research and the early stages of innovation, through to departmental policy teams creating the conditions to support market deployment, working with regulators and, for example, the UK Infrastructure Bank and British Business Bank.⁵

Planning for the longer term

4. Alongside the planned taxpayer investment, the Government needs to attract a substantial increase in private capital investment in net zero in the UK by the late 2020s. It expects new low-carbon investment will need to increase from an estimated £23 billion in 2022⁶ to two to three times that level per year through the late 2020s and 2030s, and for most of this increase to come from the private sector.⁷ The Government believes that increased long-term public investment in innovation, skills and infrastructure, alongside appropriate policy support and coordination with industry, will encourage the private sector to invest in long-term net zero technology developments.⁸

1 C&AG's Report, [Support for innovation to achieve net zero](#), Session 2022–23, HC 1321, 19 May 2023.

2 C&AG's Report, para 1

3 C&AG's Report, paras 5, 8

4 C&AG's Report, para 13

5 C&AG's Report, paras 1.11, 1.12

6 HM Government, [Mobilising green investment: 2023 green finance strategy](#), March 2023, p.18

7 Q 40; C&AG's Report, para 18

8 HM Government, [UK Net Zero Research and Innovation Framework](#), October 2021, p.124; C&AG's Report, para 1.7

5. Despite the long-term aim of meeting net zero by 2050, the net zero innovation delivery plan focuses largely on the period 2022 to 2025.⁹ DESNZ told us that this reflects the available funding in the current spending round.¹⁰ When designing the Framework, the Government did not consider in its analysis what level of longer-term public sector investment might be required up to 2050 to support delivery of the innovation challenge areas.¹¹ In written evidence to this Committee, a number of industry bodies argued that many of the technologies would require longer-term financial investment from both the public and private sector.¹² DESNZ explained that there is less certainty about the pathway to 2050 and it is “not right to plan everything now into the 2030s and 2040s”.¹³ The Treasury told us that it could “not say what the world is going to be like in 15 years’ time”, adding that it will use the next spending review as an opportunity to reassess the “next set of spending plans” in support of the Government’s net zero strategy.¹⁴ This will be important given the government’s announcement in September 2023 to delay the phasing out of new fossil fuel vehicles and heating systems.

6. The Department did suggest, however, that its broader plan “does not stop in 2025”, and that it is aiming to provide strong signals to private investors for each sector over the medium term.¹⁵ In March 2023, as part of its updated Green Finance Strategy, the Government published several net zero investment roadmaps setting out the government support for some sectors including offshore wind, heat pumps, hydrogen and carbon, capture, use and storage.¹⁶ In one area, HM Treasury has gone further and announced a £20 billion whole-lifetime budget for rolling out Carbon Capture Utilisation and Storage, which it hopes will “provide certainty around funding”.¹⁷ DESNZ told us that it has also set out longer-term ambitions including achieving offshore wind by 2030, and a decarbonised power sector by 2035. However, we recently examined, in a separate inquiry, DESNZ’s ambitions for decarbonising the power sector and concluded that it lacked an overarching delivery plan that would provide confidence to the private sector.¹⁸

Identifying what support is available for businesses

7. The Government is providing its support for net zero innovation through 115 funding programmes. Many of these funding programmes pre-dated the development of the delivery plan, with some also pre-dating the 2021 Framework. The programmes range in size from £0.35 million to £685 million.¹⁹ DSIT acknowledged that there are “a large number of programmes built up into a complex system”, suggesting this was “inevitable” because of the “many institutions” and “many stages of research” in the UK’s research and innovation system across a “huge topic”.²⁰ As a result, some businesses have found it difficult to navigate all the net zero research and innovation sources of public sector

9 C&AG’s Report, para 13

10 Q 20

11 C&AG’s Report, para 11

12 [SDZ0002](#), [SDZ0003](#), [SDZ0004](#), [SDZ0006](#), [SDZ0009](#), [SDZ0010](#)

13 Q 17

14 Q 21

15 Qq 22, 40, 41, 44

16 Q 41; C&AG’s Report, para 15

17 Qq 39, 78; HM Treasury, [Spring Budget 2023](#), March 2023

18 HC Committee of Public Accounts, [Decarbonising the power sector](#), Fifty-Ninth Report of Session 2022–23, HC 1003, June 2023

19 C&AG’s Report, para 13

20 Qq 31, 55

funding.²¹ We have also previously reported on the long delays in processing applications for support, for example, in 2021 we reported that UKRI was taking up to 31 weeks to process applications to its Industrial Strategy Challenge Fund. In written evidence to this Committee, a UK-based aerospace organisation questioned whether time-limited and competition-focused innovation funds are the best means of achieving the fastest net zero innovations.²²

8. While DSIT said it did not regret the fact that there is a large number of programmes, it recognised that it is important to make the sources of funding “accessible” and “understandable”. It explained that UK Research and Innovation (UKRI), a non-departmental public body sponsored by DSIT, is developing a Simpler and Better Funding programme to make it easier for applicants to find funding opportunities.²³ Innovate UK, part of UKRI, has recently launched the latest version of its online Innovation Hub.²⁴ This is intended to serve as a “front door” for helping businesses understand what support might be available, and is a search tool so that businesses can see the range of government innovation support in one place.²⁵ DSIT saw this online portal as a “useful and important step forward”.²⁶ While these tools are in the early stage of use, it is too early to tell whether they have made it easier for businesses to find government support for net zero research and innovation,²⁷ or whether prompt decisions are being taken on applications for support.

Consumers’ adoption of new technologies

9. The rapid deployment of net zero technologies will depend crucially on whether consumers want to buy them. However, consumers can face significant practical challenges in incorporating new technologies into their everyday lives, as we see with building an adequate charging network to support the projected increase in the number of electric cars. We asked DESNZ whether it had done any assessment of the extent to which consumers would buy into net zero technologies. DESNZ told us that it is seeking to maximise opportunities for consumers to take part in technology development.

10. The Government, however, selected the 31 net zero technology areas in the Framework based on their potential carbon impact, the number of options to reach net zero and the potential for business opportunities in the UK.²⁸ There is a risk that technology development has priority without sufficient regard being given to potential consumer needs. There is no specific programme that looks at the behavioural changes that might be needed from consumers and how to encourage them, although we were told that behavioural strategy is being funded through some of the existing programmes in the delivery plan.²⁹ DESNZ suggested that influencing and communicating to consumers “is almost a topic in its own right”, often best done through government incentivising the private sector to engage with consumers in individual markets.³⁰

21 C&AG’s Report, para 17; [SDZ0004](#)

22 [SDZ0010](#)

23 Q 31

24 Department for Business, Energy & Industrial Strategy, [UK Innovation Strategy](#), July 2021, p.6; Q38

25 Qq 31, 38

26 Q 38

27 C&AG’s Report, para 17

28 HM Government, [UK Net Zero Research and Innovation Framework](#), October 2021, p.124; C&AG’s Report, para 10

29 Qq 66–67

30 Q 65

2 Oversight of progress

Responsibility for overseeing net zero innovation

11. DESNZ has responsibility for net zero policy, while DSIT has responsibility for supporting research and innovation and creating the underlying conditions to support success.³¹ Many different organisations are involved in supporting innovation, both public and private, ranging from the research funding bodies such as UKRI through to policy teams, regulators and others creating the right environment to support market deployment. All of these organisations, working with research groups and businesses will need to work together effectively to accelerate the delivery of viable technologies and other solutions to market.³²

12. DESNZ told us that it had overall responsibility for delivering carbon budgets and oversight of a “whole government effort” to reach net zero.³³ The Net Zero Innovation Board (the Board), chaired by the Government Chief Scientific Advisor provides advice to DESNZ on the Innovation Framework.³⁴ However, there is no single entity looking at how well the innovation system as a whole is working.³⁵ It is not clear who is responsible for the delivery of the overall Framework and who is responsible for overseeing end-to-end progress across the innovation process in the individual technology areas.³⁶

13. The Net Zero Innovation Board, established in 2020, had responsibility for overseeing the development of the Framework. It now has several ongoing functions including providing strategic direction and seeking to influence spending decisions. The Board does not, however, have authority to direct decisions on the use of individual funds or policies. Since July 2022, the Board has been supported by a sub-group, the Innovation Delivery Board, comprising senior officials, which has responsibility for reviewing programme delivery, improving collaboration, and capturing and communicating successful outcomes.³⁷ DESNZ argued that these governance structures mean government is not working towards net zero in individual silos, and that there is “more join-up on this issue than almost any other issue in government”.³⁸

14. Both DSIT and DESNZ recognised however that there is more to do to oversee performance across the portfolio of activities. DESNZ acknowledged that “we are not at the finished article yet”.³⁹ DSIT and HM Treasury told us that oversight of innovation is done at the project level through peer-level and project-level reviews with experts who understand the field.⁴⁰ DESNZ agreed that it would be sensible to have a clearer lead for each of the seven technology categories in the Framework. DESNZ also agreed there is a boundary between the research and innovation and the deployment and commercialisation and that

31 C&AG’s Report, para 1.10

32 C&AG’s Report, para 2.9

33 Qq 30, 32

34 Qq 10, 13, 30

35 C&AG’s Report, para 2.9

36 Qq 30, 33; C&AG’s Report, para 16

37 C&AG’s Report, para 2.11

38 Q 33

39 Qq 31, 32, 45

40 Qq 11, 14, 43

they need to do everything they can to “bridge that boundary”. Addressing this would make sure there is “join-up” from research and innovation through to demonstration project and commercialisation within the overarching governance.⁴¹

Judging the success of net zero innovation

15. DESNZ, with other departments, has started to establish a process for monitoring progress systematically across the Framework but it is still to define what outcomes it is seeking to deliver. We were told that the Net Zero Innovation Board is starting to run a series of “deep dives” on each category in the Framework and DESNZ is developing a set of indicators for measuring progress.⁴² Many of the proposed programme indicators are output-focused rather than outcome-focused, such as the number of projects and organisations supported, rather than the number of business opportunities created or the potential for reductions in carbon emissions. This reflects the output-focused commitments in the delivery plan. The Innovation Delivery Board, with DESNZ, had yet to specify what interim measures of success might look like.⁴³

16. We challenged DESNZ on how it was going to measure progress in terms of the potential to achieve carbon reductions and economic growth.⁴⁴ It told us that individual programmes have set outputs and ‘near-term’ outcomes for what interim measures of success might look like.⁴⁵ DESNZ agreed that it was a good challenge but told us that for many individual projects, the most practical way to consider success is the achievement of an output, such as installing a nuclear reactor to extract heat.⁴⁶ It argued that it is harder to measure outcomes such as carbon savings in the early stages.⁴⁷

Determining which net zero innovations to support

17. The uncertain and longer-term nature of innovation makes some level of failure inevitable.⁴⁸ DESNZ, however, has yet to define what level of failure it could tolerate across the Framework, instead placing reliance on risk management by departments at programme and project level.⁴⁹ The business case for each innovation programme includes a risk statement that needs to be consistent with a department’s overall risk appetite, which we were told ranges from medium to very high. DESNZ told us that it funds some high-risk projects and deliberately takes a range of risks to maximise the returns across its portfolio of projects.⁵⁰

18. We asked at what point DESNZ would pull the plug for a project that might not succeed. It explained that it carries out a review process across its portfolio using evidence and modelling to understand the impact of a low-carbon technology.⁵¹ DSIT added

41 Qq 33, 42, 43

42 C&AG’s Report, para 2.12, Qq 49, 50, 58

43 C&AG’s Report, para 2.29

44 Qq 50, 51, 61, 63

45 Q 58

46 Qq 49, 61

47 Qq 58, 60

48 Qq 8, 14, 47

49 Qq 8, 19; C&AG’s Report, para 19

50 Qq 8, 9, 10

51 Qq 10, 19

that technologies with higher potential will start to receive more investment, whereas technologies with less potential would scale down; it suggested that pulling the plug on a project would be a “relatively low-probability scenario”.⁵²

19. We were told that the Innovation Delivery Board is starting to collate risk assessments for individual net zero innovation projects.⁵³ DESNZ told us that there is an “honesty” about when an innovation project does not work compared with other government projects, because it is about seeing what does and does not work across a portfolio of projects. It agreed with our view that a ‘failure’ when trying a range of innovative projects is not a failure if it is identified early. DESNZ noted that finding out that something does not work can itself be a “successful outcome”.⁵⁴

Making progress visible to the public

20. The complexity of public sector funding will make it hard for DESNZ and the Innovation Delivery Board to track spending.⁵⁵ We challenged witnesses on how the Government will report to the public on progress against plans for delivering net zero innovations and reaching carbon objectives.⁵⁶

21. DESNZ suggested that while it is a complex picture and the delivery plan was a first attempt at publishing details on net zero innovation, it accepted that government could be better at articulating its plans towards net zero.⁵⁷ DESNZ said that it has produced several “weighty documents”, including the net zero strategy, the Framework and the delivery plan. It acknowledged that the Net Zero Strategy does not provide all the detail that Parliament, businesses and other interested parties might need.⁵⁸ It did not, however, see a need for a single document, instead explaining that there are “several layers of plans and strategies” that feed into updated versions of the overall net zero strategy.⁵⁹ In addition, some major government net zero innovation programmes, such as Carbon Capture, Utilisation and Storage, require public reporting of spend and risks because they are part of the Government Major Projects Portfolio. However, this requirement does not apply to many of the technologies included in the Framework.⁶⁰

52 Qq 11, 12

53 Q 13

54 Q 47

55 C&AG’s Report, para 2.17

56 Qq 16, 64,

57 Qq 74, 75, 79

58 Q 74

59 Qq 64, 74

60 Q 16

Formal minutes

Thursday 19 October 2023

Members present:

Dame Meg Hillier

Sir Geoffrey Clifton-Brown

Mr Jonathan Djanogly

Mr Mark Francois

Ben Lake

Anne Marie Morris

Declaration of interests

Olivia Blake declared that her husband provides secretarial support services to the cooperative Sheffield Renewables Group.

Support for innovation to deliver net zero

Draft Report (*Support for innovation to deliver net zero*), proposed by the Chair, brought up and read.

Ordered, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 21 read and agreed to.

Summary agreed to.

Introduction agreed to.

Conclusions and recommendations agreed to.

Resolved, That the Report be the Seventy-ninth 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.

Adjournment

Adjourned till Monday 23 October at 3.30pm.

Witnesses

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

Thursday 15 June 2023

Jeremy Pocklington CB, Permanent Secretary, Department for Energy Security and Net Zero; **Dr Damitha Adikaari**, Director for Climate Science and Energy Innovation, Department for Energy Security and Net Zero; **Sarah Munby**, Permanent Secretary, Department for Science, Innovation and Technology; **Steve Field**, Director Climate, Environment and Energy, HM Treasury

[Q1–80](#)

Published written evidence

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

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

- 1 Association of Public Service Excellence (APSE) ([SDZ0003](#))
- 2 Carbon Engineering; 1PointFive ([SDZ0005](#))
- 3 Enertechos ([SDZ0009](#))
- 4 First Light Fusion Ltd) ([SDZ0012](#))
- 5 Hybrid Air Vehicles ([SDZ0004](#))
- 6 IDRIC ([SDZ0002](#))
- 7 Make UK ([SDZ0001](#))
- 8 MoltexFlex ([SDZ0006](#))
- 9 Royal Institution of Chartered Surveyors (RICS) ([SDZ0007](#))
- 10 Royal Society ([SDZ0013](#))
- 11 Royal Society of Chemistry ([SDZ0011](#))
- 12 Small Steps Big Changes ([SDZ0008](#))
- 13 ZeroAvia Ltd ([SDZ0010](#))

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.

Session 2022–23

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