



E3G

BRIEFING PAPER August 2018

INVESTING IN THE FUTURE: HOW THE UK CAN REPLACE EU FUNDING FOR LOW CARBON INFRASTRUCTURE

PETER CLUTTON-BROCK, JOSEPH DUTTON

Given the comparatively high ratio of capital expenditure to operational expenditure requirements of low carbon assets, access to reliable sources of low cost capital is essential if the UK Government's climate targets are to be met at least cost to energy consumers. Brexit calls into question the UK's access to several EU sources of low cost finance for clean energy infrastructure risking future increases to consumer energy bills.

Key points:

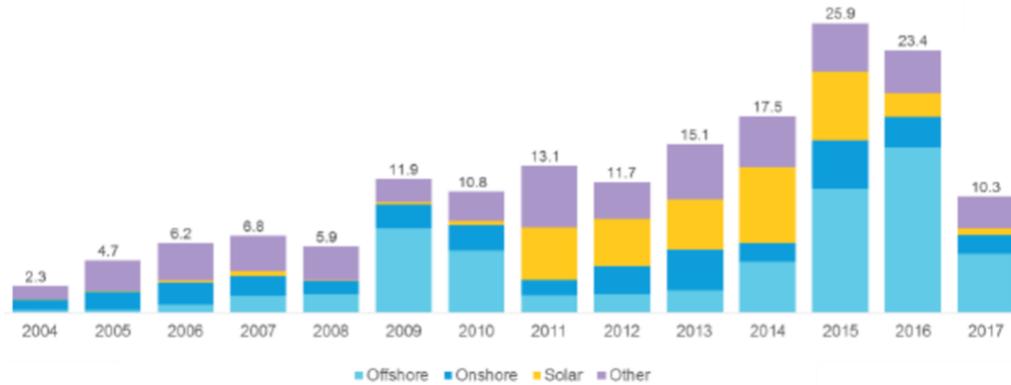
- > UK clean energy investment declined by 56% between 2016 and 2017, with Brexit creating a decisive chilling effect on investment;
- > Loss of access to EU funding mechanisms risks exacerbating this investment hiatus;
- > In the short-term the Government should develop an infrastructure funding package to address the uncertainty created by Brexit and to act as an emergency stimulus in the event of a no-deal Brexit scenario.
- > Concurrently, the Government needs to develop options for addressing the longer-term gap in investment architecture left by EU funding. Existing options under consideration include maintaining access to European Investment Bank (EIB) finance through a new EIB subsidiary for non-EU Member States, or developing a new UK national infrastructure bank;
- > However continued UK access to substantial amounts of EIB capital would be politically challenging for the EU27 to agree to, and a new UK infrastructure bank would likely result in the UK missing its fiscal target for Public Sector Net Debt (PSND) to fall as a percentage of GDP in 2020-21;
- > The UK should assess the potential for establishing a new multilateral infrastructure development bank with other interested countries, to address the shortfall in a way that would support the evolution of infrastructure systems and strengthen alliances, whilst avoiding any impact to the government's balance sheet.



A UK Clean Energy Investment Hiatus

Following strong growth between 2004 and 2015, clean energy investment in the UK fell by 10% in 2016 and by 56% in 2017 (Figure 1)¹.

Figure 1: New investment in clean energy in the UK, \$bn (2004-2017)



Source: BNEF, 2018

The political, policy and trade uncertainty created by Brexit has had a decisive chilling effect on clean energy investment. This effect was summed up by Siemens UK Chief executive Juergen Maier in 2016:

"Short term, in terms of any investment decisions you want to make here [in the UK], especially those that result in exporting to the European Union, they will be on ice. No question about that."

The impact of Brexit on clean energy investment occurs against a backdrop of domestic policy decisions that have impacted investment in clean energy including reduced Feed-In-Tariffs for solar power, reduced support for onshore wind and the privatisation of the Green Investment Bank. Whilst it can be difficult to untangle the possible causes for the reduction in investment, the precipitousness of the investment decline between 2016 and 2017 lends support to the idea that Brexit has played a decisive role in putting clean energy investments on hold.

Of the risks that Brexit presents, supply chain impacts, policy uncertainty and Government capacity are the dominant sources of concern for clean energy investors and E3G has previously published papers detailing the political and policy risks surrounding the Brexit negotiations² and how to establish a cooperative track in the Brexit negotiations on energy and climate change policy to mitigate these risks³.

¹ Environmental Audit Committee: Green Finance Inquiry (May, 2018) (<https://www.parliament.uk/business/committees/committees-a-z/commons-select/environmental-audit-committee/inquiries/parliament-2017/green-finance-17-19/>)

² E3G: Brexit scenarios: space for climate and energy cooperation grows: <https://www.e3g.org/library/brexit-scenarios-space-for-climate-and-energy-cooperation-grows>

³ E3G: Brexit: Cooperation Track For Climate Change And Energy: https://www.e3g.org/docs/E3G_Brexit_climate_and_energy_future_relationship_16_03_2018.pdf



However, the loss of EU infrastructure funding due to Brexit risks exacerbating the clean energy investment hiatus at a time when substantial investment in clean energy infrastructure is needed. The government's Clean Growth Strategy committed an additional £557 million to bring on an estimated additional 45 TWh of low carbon generation, however in its response to the strategy the Committee on Climate Change noted that a further 50-70 TWh will need to be contracted to stay on track for 2030. They go on to say that in a high electrification scenario, with a rapid increase in electric vehicles (EVs) and electrification of heat, but without CCS, low carbon generation would need to be quadrupled between now and 2050.

More recently, the National Infrastructure Assessment⁴ highlighted that increases in the UK population and electric vehicle uptake will mean that UK energy demand could increase by 9-26 % from today to 2030. Over the same period, up to 40 GW of older power stations will come offline. To address the gap the Commission proposed substantial investment in renewables such that half of the UK's power would be provided by renewables by 2030.

Funding from European institutions has been a critical source of finance to support the development of clean energy infrastructure in the UK to date, and the loss of such funding has created a need to rethink how the UK Government can catalyse the required investment.

EU funding for UK low carbon infrastructure

The UK energy sector has primarily received EU investment through three instruments:

- European Investment Bank (EIB)
- Connecting Europe Facility (CEF)
- European Structural and Investment Fund (ESIF)

European Investment Bank (EIB)

The European Investment Bank is the world's largest multilateral financing institution, and co-finances long-term investments across a number of sectors, including energy.⁵ It is also the single most important source of finance for UK infrastructure projects, and the UK has been the fourth largest recipient of EIB finance from 1973-2017 receiving over £120bn. In 2016 the UK was the fifth largest recipient of EIB loans, while in 2015 it was the fourth largest recipient⁶.

Whilst there is no shortage of capital in the capital markets, the EIB has fulfilled an important function in the UK by helping to address a set of market failures; for example, where there has been a mismatch between the risk-perception and actual risk of a

⁴ National Infrastructure Assessment, 2018; https://www.nic.org.uk/wp-content/uploads/CCS001_CCS0618917350-001_NIC-NIA_Accessible.pdf

⁵ The other EIB funding sectors are: agriculture and food; digital economy; education and training; forestry; health and life science; regional development; trans-European networks; urban agenda; water and wastewater management <http://www.eib.org/projects/sectors/index.htm>

⁶ <http://www.eib.org/attachments/general/reports/fr2016en.pdf>

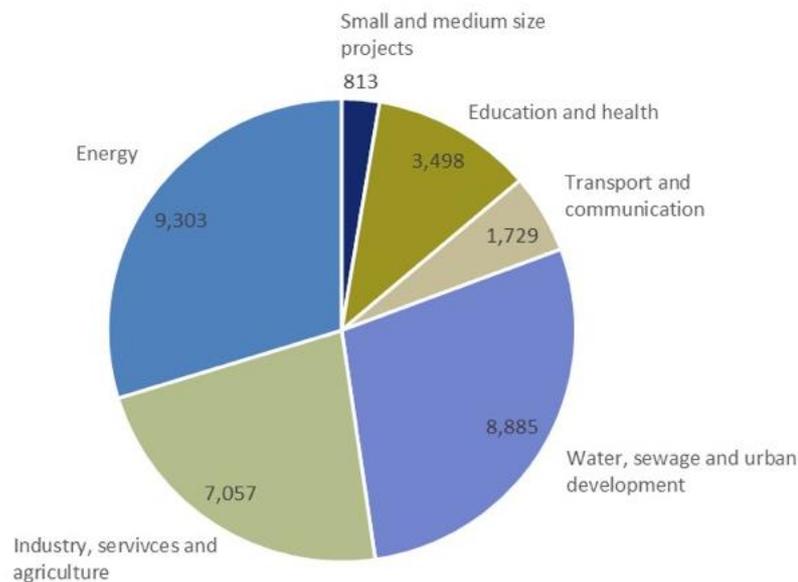
project. In practical terms such market corrections have been achieved in the energy sector through the EIB taking more risky junior debt positions in energy projects at affordable rates. The EIB is capable of fulfilling this function because it has a AAA credit rating and so is able to borrow at lower interest rates and isn't required to achieve a commercial return.⁷

By addressing market failures, the EIB is able to reduce the risk profile of energy infrastructure projects, and so attract additional private sector capital to UK infrastructure.

Between 2012 and 2016 the EIB lent the UK €31.3bn, of which 47% was for infrastructure.⁸ The energy sector received lending of around €9.3bn in this period. Key energy sector projects to receive funding included:

- > £1.5bn in 2014 to National Grid for upgrades to the electricity transmission network – the EIB's largest ever single loan;
- > £500mn in 2016 for reinforcement of electricity transmission network in northern Scotland to improve connections between renewable energy schemes and the grid;
- > £525mn, also in 2016, to support construction of the Beatrice offshore windfarm – the single largest EIB loan an offshore wind project⁹.

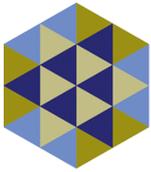
Figure 2: EIB lending to the UK 2012-2016 (€ million)



⁷ http://www.frontier-economics.com/flipbook/frontiers-latest-insights-into-different-pathways-presented-by-brexite/files/assets/common/downloads/BREXIT_PATHWAYS.pdf#page=54

⁸ <http://www.eib.org/projects/regions/european-union/united-kingdom/index.htm>

⁹ <http://www.eib.org/infocentre/press/releases/all/2014/2014-248-largest-ever-eib-loan-provides-gbp-1-5-billion-for-national-grid-investment.htm>



E3G

Post-referendum period

Since the referendum vote the total lending to the UK from the EIB has fallen considerably. The total value of investments in 2016 was €6.9bn, but this fell in 2017 to €1.18bn.¹⁰

The EIB has also been a significant equity investor for UK venture capital and private equity groups. According to a leaked internal EIB document published in April 2018, equity investments in the UK last year fell to just 8% of the bank's total equity investments, down from 27% in 2016, when the UK had the largest share of all member states.

Before the end of the Article 50 period, UK infrastructure projects are still eligible for EIB investment. The reduced investment has largely resulted from a reduction in demand, likely due to investments being put on ice due to Brexit.

Connecting Europe Facility (CEF)

The Connecting Europe Facility was created in 2014 to fund key infrastructure projects across the EU in energy, transport, and digital and telecoms infrastructure. CEF provides finance for infrastructure projects in a manner intended to speed up the project development and attract private investors.

Projects meeting certain criteria on enhancing cross-border integration between member states can receive designation as a Project of Common Interest (PCI), which makes them eligible to receive funding for design, preparatory and early-stage construction work from the CEF, as well as accelerated licensing procedures and improved regulatory conditions. PCIs have access to a total of €5.35bn from CEF out of a total €30bn the fund has for infrastructure between 2014 and 2020.

GB interconnectors and the PCI process

High voltage electricity interconnectors are a key part of the government's future energy plans. There are currently four operational interconnectors with a combined capacity of 4GW, supplying 6% of demand 2016. The total capacity is forecast to increase by at least 12GW by the mid-2020s.

Eleven of the planned electricity interconnectors¹¹ between GB and EU/EEA countries are included on the most recent PCI list of 2017, as well as two interconnectors between Northern Ireland and Ireland as part of the Single Electricity Market (SEM). Five of these GB interconnectors have received funding so far.

¹⁰ <http://www.eib.org/projects/regions/european-union/united-kingdom/>

¹¹ Nemo (Belgium), FAB, IFA2, Eleclink, Acquind, Gridlink (France), Greenlink (Ireland), Northconnect, Northsea Link (Norway), Viking Link (Denmark), Icelink (Iceland)



BEIS and Ofgem actively encourage all interconnector developers to seek PCI status, primarily for the expedited planning process rather than financial support. The finance from CEF is not fundamental for overall interconnector development, but its provision is targeted at an early stage in the projects and reduce risk.

A reduction or loss in this early-stage finance (as well as the planning regime) from CEF could lead to a fall in private capital deployed for interconnector development. Ofgem supports private interconnector development through its cap and floor regulatory regime, but a fall in private investment that CEF funding encourages could lead to a higher burden on transmission system operator National Grid to develop interconnectors, with a similar model to the continent where projects are typically led by TSOs rather than private developers.

In 2016 French regulator CRE decided to withhold planning approval on the new IFA2 interconnector to the UK because of Brexit uncertainty, and launched a public consultation to assess any legal issues arising.¹² However, since the referendum, a number of developers have made final investment decisions on interconnector projects and intend to develop despite the regulatory uncertainty.

Replacing EU finance

The loss of EU funding will leave a structural gap in the UK's infrastructure investment architecture. Whilst this architecture will need to be recreated, rather than replacing like-for-like, the UK has an opportunity to assess what the future of infrastructure finance should look like in the 21st century. This will require a process of careful evaluation of the future infrastructure required, the market failures that exist in funding this infrastructure and the optimal instruments and institutional structures for addressing market failures.

Whilst new investment architecture can be developed relatively rapidly, new institutions will take time to scale up investments.

In the short term the Government will need to develop an infrastructure funding package to bolster investor confidence given the uncertainty created by the Brexit negotiation process and to act as an emergency stimulus in the event of a no-deal Brexit scenario.

A Brexit low carbon infrastructure stimulus package

To allow for a stimulus to be delivered in a timely manner, any short-term funding package for low carbon energy will need to bring forward investment through existing policy and funding mechanisms.

Government support for low carbon energy is mostly provided through Contracts for Difference (CfDs). Auctions for CfDs are held irregularly for established technologies such

¹² <https://uk.reuters.com/article/britain-eu-france-power-idUKL5N1E22T4>



E3G

as onshore wind and solar (known as Pot 1), and less established technologies such as offshore wind and biomass CHP (known as Pot 2).

The government has already committed to holding an auction for Pot 2 technologies in early 2019. It would be beneficial if this auction was held before 29th March 2019, as this would help off-set the risk of a no-deal Brexit scenario before the Article 50 2-year time frame has elapsed.

Looking further ahead, to date offshore wind has been supported through Pot 2 (less established technologies); however as it has matured as a technology it would now be appropriate to transition it to pot 1. Only one pot 1 auction has been held to date largely because the 2017 Conservative Party manifesto noted ‘we do not believe that more large-scale onshore wind power is right for England’. The restriction of CfDs for more established renewable technologies has reduced the pool of capital available for new clean energy investment as institutional investors tend to favour lower risk technologies. However, such a restriction could still be captured in English planning regulations, whilst allowing onshore wind projects to be developed in those areas of Scotland and Wales where they enjoy public support. Moving Offshore Wind to Pot 1 and using this pot to fund the bulk of new renewable capacity would bring forward substantial investment in the renewable energy whilst minimising the cost to energy consumers.

Like any sector the clean energy market benefits from long term clarity on government interventions, and as such the market would be boosted by increased clarity on the timing and size of future CfD auctions. Whilst it is reasonable for the government to seek some flexibility on the precise date of auctions, we recommend that a schedule of auctions be published with dates in ranges, and that data on grid capacity requirement projections be published annually.

Whilst CfDs are the cornerstone of clean energy support, they only provide a benefit once projects have been fully constructed and have started operating. To bring forward investment there is a need to support the earlier stages of project development, financing and construction.

The UK Guarantees Scheme is one mechanism that has developed a strong track record of helping low carbon projects raise the capital needed to build and operate them. The scheme works by offering a government-backed guarantee to help infrastructure projects access debt finance where they have been unable to raise finance in the financial markets. In particular, it guarantees the principal and interest payments on infrastructure debt issued by the borrower to banks or investors.

The government has already expanded the scheme’s mandate to allow it to offer construction guarantees to help de-risk the construction phase of infrastructure projects. However, this is insufficient to bring forward the infrastructure investment required. The scheme already has the legal ability to offer debt finance but has so far not used this capability. If expanded and given sufficient capital to allow it to offer debt, the it could act as a forerunner to any new replacement investment architecture.

To address the short-term clean energy investment hiatus, we recommend the government develop a stimulus package that includes the following:



-
- Proposed Contract for Difference auctions for 'pot 2' technologies to be held before 29th March 2019.
 - Moves offshore wind to 'Pot 1' and announces a schedule of Pot 1 auctions for the coming 5 years.
 - Capitalises the UK Guarantee Scheme with £1bn to allow it to offer debt finance and triple the size of the investment team.

New infrastructure investment architecture

Beyond the short-term need to stimulate the low carbon energy sector, the UK will need to assess the options for replacing EU funding. The bulk of EU infrastructure funding is delivered through the European Investment Bank (EIB). There are a range of options for addressing the investment gap that would be left if the UK no longer had direct access to EIB investment.

Option 1: Enable the proposed EIB subsidiary to support low carbon projects in the UK

The phase one negotiation agreement between the EU and UK stated that “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”. This is because the EIB’s mandate, as set out in Treaty on the Functioning of the European Union, is to support ‘the internal market, in the interest of the Union’. This provision would require a Treaty change to amend¹³, making it highly unlikely to change.

However, the UK-EU agreement also stated that there could be mutual benefits from a continuing arrangement between the UK and the EIB, and it wants to explore this in the second phase of the negotiations.¹⁴

Although the EIB does lend to non-EU and non-EFTA countries, this makes up only approximately 10% of total lending, which in 2016, amounted to €8bn.¹⁵ The EIB’s international non-EU mandates for Europe currently cover EU enlargement countries, EFTA members, and eastern neighbours.

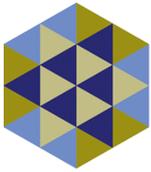
However, the EIB is currently seeking to expand its mandate through the creation of a new subsidiary designed to focus solely on non-EU projects. The new subsidiary would initially focus on countries that are contributing to Europe’s migrant crisis and would lend around 7-8 billion euros a year¹⁶. The EIB has argued that bringing more of the EU’s international development spending into a streamlined and market-savvy unit under the EIB umbrella would improve the value for money for the EU’s development spending. However, some in the EU see this as an attempt to offset the losses created by the withdrawal of the UK’s EIB shareholding after Brexit by getting an additional portion of

¹³ The legal basis for the EIB is the Treaty on the Functioning of the European Union

¹⁴ https://ec.europa.eu/commission/sites/beta-political/files/joint_report.pdf

¹⁵ http://www.eib.org/attachments/country/eib_rem_annual_report_2016_en.pdf

¹⁶ Reuters, 2018; <https://uk.reuters.com/article/uk-eu-eib-exclusive/exclusive-european-investment-bank-plans-internationally-focussed-offshoot-idUKKBN1E02XE>



E3G

the EU's budget. It could also duplicate or compete with existing European Bank of Reconstruction and Development (EBRD) activities in countries such as Turkey,¹⁷

The UK might be able to maintain a close relationship with the EIB through such a subsidiary by using the institution to help deliver UK development finance. However, given the proposed focus on development finance, the UK would not be a natural recipient of the subsidiary's lending and it would be politically challenging for the EIB to maintain anything like the prior level of EIB lending in the UK.

Option 2: Develop a domestic UK Infrastructure Bank

An alternative to maintaining a close relationship with the EIB, would be for the UK to develop its own infrastructure bank. In its recent National Infrastructure Assessment¹⁸ the National Infrastructure Commission recommended that such an institution be developed if it proves impossible to maintain a close relationship with the EIB. There are a range of potential benefits such a new institution could bring. According to the OECD, the UK has lagged behind its competitors on infrastructure spending for thirty years¹⁹ and such an institution could help de-risk long term infrastructure investments and support the government's industrial strategy. At the same time such an institution could consolidate the current constellation of infrastructure support mechanisms that currently exist across government, such as the UK Guarantee Scheme, the Pensions Infrastructure Platform, and the £400 million Charging Investment Infrastructure Fund for EV charging.

However, it is important that any new institution would not attempt to replicate what investors in the capital markets are already doing. Rather, it should focus on catalysing private investment by addressing market failures. For many infrastructure projects in the energy sector that are funded via project finance, there is still a shortfall in investors willing to take on subordinated and mezzanine debt positions at an affordable rate, and for many infrastructure projects the political risk of policy changes can add a premium to the cost of capital. A UK Infrastructure Bank could help address both issues.

The establishment of the Green Investment Bank demonstrated that with the right governance structures and leadership, such new investment institutions can be set up relatively quickly.

However, as the Green Investment Bank found, there are challenges with setting up a UK-only institution. Some reports have suggested that for existing EIB lending levels to be maintained, the government would likely have to capitalise such a new institution with £15 – 20 billion²⁰. As the UK would be a 100% shareholder, such an infrastructure bank would be added to the government's balance sheet, and its finances would be added to Public Sector Net Debt (PSND). This would jeopardise the government's fiscal

¹⁷ <https://www.politico.eu/article/brexit-divorce-brussels-fears-eib-money-grab/>

¹⁸ National Infrastructure Assessment: https://www.nic.org.uk/wp-content/uploads/CCS001_CCS0618917350-001_NIC-NIA_Accessible.pdf

¹⁹ [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=ECO/WKP\(2015\)62&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=ECO/WKP(2015)62&docLanguage=En)

²⁰ NAO, 2018; <https://www.nao.org.uk/wp-content/uploads/2018/04/Exiting-the-EU-The-financial-settlement.pdf>



target for PSND to fall as a percentage of GDP in 2020-21 and reduce funding for other government departments. In the case of the Green Investment Bank, the impact on the government's balance sheet resulted in the government deciding to sell off the bank.

Whilst it is possible to envisage the government collating existing funding into a single institution, it is hard to imagine such an institution being allowed to substantially increase infrastructure funding because of the effect on the government's fiscal targets. It is also likely that the Treasury would require stringent governance controls and financial restrictions (such as limiting borrowing) to control the impact on the PSND. It may also seek to sell the institution in the future, thereby nullifying its ability to address market failures.

Option 3: Develop a new multilateral Future Infrastructure Development Bank (FIDB)

UK investments only sit on the government's balance sheet if the government has a controlling stake, usually meaning a greater than 50% shareholding. To avoid a potential impact to PSND, the UK could consider developing a new multilateral infrastructure bank. After Brexit, the UK will need to reach out, strengthen alliances and develop new mechanisms for collaboration. A new multilateral Future Infrastructure Development Bank (FIDB) would be one way of doing this. The design of such an institution would need to be determined based on the interests of other potential shareholder countries and a thorough assessment of the market failures that need addressing.

One strategy would be to attract geographically close, non-EU Members, such as Iceland, Norway and Switzerland as potential shareholders, as well as EU Member States that receive proportionally less funding from the EIB than others. In the context of energy, such an institution could support collaboration on projects of common interest such as the North Sea Offshore Grid and the proposed Iceland-UK interconnector as well as investing in new low carbon infrastructure within each of the shareholder countries.

Alternatively, the FIDB could seek potential shareholders from a wider set of funding countries, based on filling a distinct global investment gap. Such an option offers an opportunity to reassess what financial support structures will be needed over the coming 50 years. Energy systems are evolving to become more distributed and flexible and are seeking to apply emerging technologies such as machine learning and blockchain technology. Given these changes, there is a need for public investment support to evolve and adapt. Such a focus could allow the institution to add substantial value beyond existing institutions in a way that would leverage UK strengths and attract additional shareholders.

The UK Department for International Development (DFID) has been exploring how de-risk developing country investments to make them attractive to institutional investors in the UK. An international institution could also seek to expand on the role of the CDC in delivering some of the UK's development finance in support of this objective.

A thorough assessment of interest from other potential shareholders and where potential market failures exist would be needed before determining the feasibility of either option and the required institutional structures.

To explore which of these options is preferable we recommend the government:

- Requests the National Infrastructure Commission (NIC) conduct an analysis of whether (and if so where) market failures exist for infrastructure financing as an addendum to the National Infrastructure Assessment. This should be an integral part of the NIC's National Infrastructure Assessments going forward.
- Reach out to prospective shareholder countries to assess whether there would be interest in launching a multilateral Future Infrastructure Development Bank.

Addressing support for Projects of Common Interest between UK and EU Member States

The Connecting Europe Facility (CEF) provides a dual role of offering early stage finance for infrastructure projects, as well as offering Project of Common Interest (PCI) designation to cross-border ones, which helps projects raise further capital. Given the substantial benefits that can be gained from continued EU-UK cooperation on electricity trading, it will be important for private interconnector developers to be able to confirm and demonstrate EU and UK support for such projects. We recommend the UK seeks to ensure that such a process is developed as part of the Brexit negotiations. Continued UK participation in the CEF would be the simplest approach for delivering this outcome and would support continued Europe-wide energy cooperation.

Conclusion

Limited time exists for discussion on the Future Relationship Agreement before the end of the two-year Article 50 period. As such the most likely scenario is that the UK will leave the bloc with, at best, limited details agreed on how the future relationship between the UK and EU27 will proceed. Such a scenario is likely to exacerbate the investment hiatus for clean energy infrastructure unless the government is able to offer some form of stimulus to the sector.

Whilst the understandable, albeit knee-jerk reaction would be for the UK Government to either seek to maintain access to EU funding mechanisms, or simply replace them with domestic alternatives, there is a need to step back and consider additional options.

The infrastructure of tomorrow will require a nuanced understanding from governments and investment institutions of the evolving systems in which infrastructure assets sit and the emerging technology that is shaping these systems. The UK has an opportunity to consider what infrastructure funding in the 21st century needs to look like to support its evolving infrastructure systems.



E3G

If the government is able to think through investment needs holistically, the replacement of EU funding offers an opportunity to address the clean energy investment hiatus, stimulate the economy, strengthen alliances and invest in the infrastructure systems of the future. The only question is whether the government is too focused on Brexit-minutiae to seize the opportunity.



E3G

About E3G

E3G is an independent climate change think tank operating to accelerate the global transition to a low carbon economy. E3G builds cross-sectoral coalitions to achieve carefully defined outcomes, chosen for their capacity to leverage change. E3G works closely with like-minded partners in government, politics, business, civil society, science, the media, public interest foundations and elsewhere. In 2016, E3G was ranked the number one environmental think tank in the UK. www.e3g.org

Berlin office

Neue Promenade 6 Berlin, 10178 – Germany
Tel: +49 (0) 30 2887 3405

Brussels office

Rue de la Science 23 1040 Brussels, Belgium
Tel: +32 (0)28 93 92 12

London office

47 Great Guildford Street London SE1 0ES, UK
Tel: +44 (0)20 7593 2020

Washington DC office

2101 L St NW Suite 400 Washington DC, WA 20037 United States
Tel: +1 202 466 0573

© E3G 2018

Copyright

This work is licensed under the Creative Commons Attribution-Non-Commercial-ShareAlike 2.0 License.

You are free to:

- Copy, distribute, display, and perform the work.
- Make derivative works.

Under the following conditions:

- You must attribute the work in the manner specified by the author or licensor.
- You may not use this work for commercial purposes.
- If you alter, transform, or build upon this work, you may distribute the resulting work only under a license identical to this one.
- For any reuse or distribution, you must make clear to others the license terms of this work.
- Any of these conditions can be waived if you get permission from the copyright holder.

Your fair use and other rights are in no way affected by the above.

