Green Alliance policy insight
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Britain's trading future

A post-Brexit export strategy led by clean growth

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Executive summary

"The UK should capitalise on its existing skills and high standards and expand its low carbon exports to the EU and the rest of the world."

The UK is in the process of developing an independent trade strategy, as part of the Brexit process. At the same time, its industrial strategy is focused on maximising the opportunity of clean growth. This policy insight sets out what a trade strategy, designed to benefit UK businesses in a decarbonising world, would look like.

At the heart of the government's new strategy is the idea of 'global Britain'. This implies that the UK will set up a network of free trade agreements with the EU and other major trading nations. Free trade proponents outside government, notably the Legatum Institute, have taken global Britain to mean that the UK will lead the world towards greater free trade, independent of the world's major trading powers: the EU, the US and China.[1]

However, major sociopolitical and economic factors are forcing both the US and the EU to look inwards to domestic priorities, and smaller potential trading partners have a highly diverse set of interests, which makes UK leadership of a single model of free trade seem unlikely.[2]

In reality, the UK has a binary choice in its future trade relationships: to align with the rules and standards set by the EU or to align with different, and often lower, standards set by the United States. Trade deals now focus on resolving non-tariff barriers as these are more economically significant than tariffs, roughly estimated to be worth five times the value of average UK tariffs.[3] And non-tariff barriers are more domestically salient than tariffs; often, they are simply domestic regulation designed to protect the environment, human health and local industry within a country.

The government's Clean Growth Strategy and Industrial Strategy both signal a clear direction of travel toward a more low carbon, high tech and resource efficient world. The UK should capitalise on its skills and high standards and expand its low carbon exports to the EU and the rest of the world, and particularly emerging economies, where it is estimated there

is a £17 trillion investment opportunity.[4] We believe that the UK low carbon sector's best interests lie in keeping regulatory alignment with the EU.

To be able to make the most of the opportunities ahead, and considering the complex politics around Brexit, we recommend that the UK makes the following economic, regulatory and governance decisions:

1

Maximise trade in low carbon goods and services on the basis of maintaining high UK standards. Rather than offering to lower UK standards in exchange for trade deals with stronger partners, like the United States, China or India, the UK should maximise its trade in low carbon goods and services on the basis of high UK standards. The UK's trade white paper highlights the importance of keeping the government's Industrial Strategy central to trade policy. This means clean growth should be the basis for negotiating future free trade agreements, thereby aligning UK domestic and international priorities.

2

Place the Paris climate agreement at the heart of UK trade negotiations. The Paris climate agreement is an international commitment to invest in clean growth, and is a diplomatic framework to ensure ambitious climate targets are met. The UK should use its strength in climate diplomacy to sell its world-leading low carbon goods and services. This could be a win-win: these exports can help other countries to decarbonise quickly and cost effectively.

"As over half of the UK's low carbon trade is with the EU, it makes sense to keep regulation aligned, especially in areas like electricity."

3

Ensure a stable transition period where the UK fully participates in the internal energy market and its rule making bodies, remains in the EU's Emissions Trading Scheme (EU-ETS) and continues to access cheap finance for domestic energy infrastructure. This will provide certainty in the short term for industry and investors to invest in UK decarbonisation.

4

Harmonise regulation with the EU where it is critical for UK clean growth. As over half of the UK's low carbon trade is with the EU, it makes sense to keep regulation aligned, especially in areas like electricity, in which countries in the European Economic Area (EEA) are the only possible trading partners. In other areas, like the REACH chemicals regime, vehicle emission standards and product standards, where the EU dominates, it makes no sense to increase bureaucracy and raise business costs by diverging.

5

Agree on a framework for regulatory equivalence where complete harmonisation is not necessary. In areas like low carbon farming, renewables targets, smart energy innovation, green finance and energy efficiency, regulatory equivalence would allow the EU to acknowledge the UK's standards and regulatory framework as broadly achieving the same goals as its own, thereby facilitating trade. Regulatory equivalence with the EU would be an economic second best to the single market and customs union, but it offers the UK flexibility in meeting shared objectives. The UK's goal in these cases should be to move swiftly to set high standards which provide an advantage to its low carbon businesses and trade, both with the EU and beyond.

"Trade agreements should not undermine the UK's ability to address its climate change priorities."

6

Apply environmental principles and sustainability assessments to future trade agreements. Trade agreements should not undermine the UK's ability to address its climate change priorities. Environmental principles like the precautionary principle or polluter pays should be enshrined into UK law. Similarly, sustainability impact assessments on future trade agreements, for instance with the US and India, will be critical to prevent negative outcomes.

7

Reject a hard line on the role of the European Court of Justice. The benefits of the internal energy market and energy union, especially for Northern Ireland, should not be lost due to an inflexible UK position on the European Court of Justice. But, if the UK remains committed to leaving the European Economic Area (EEA), a Ukrainian-style 'association agreement' and its principles and provisions for dispute settlement could be considered instead.[5]

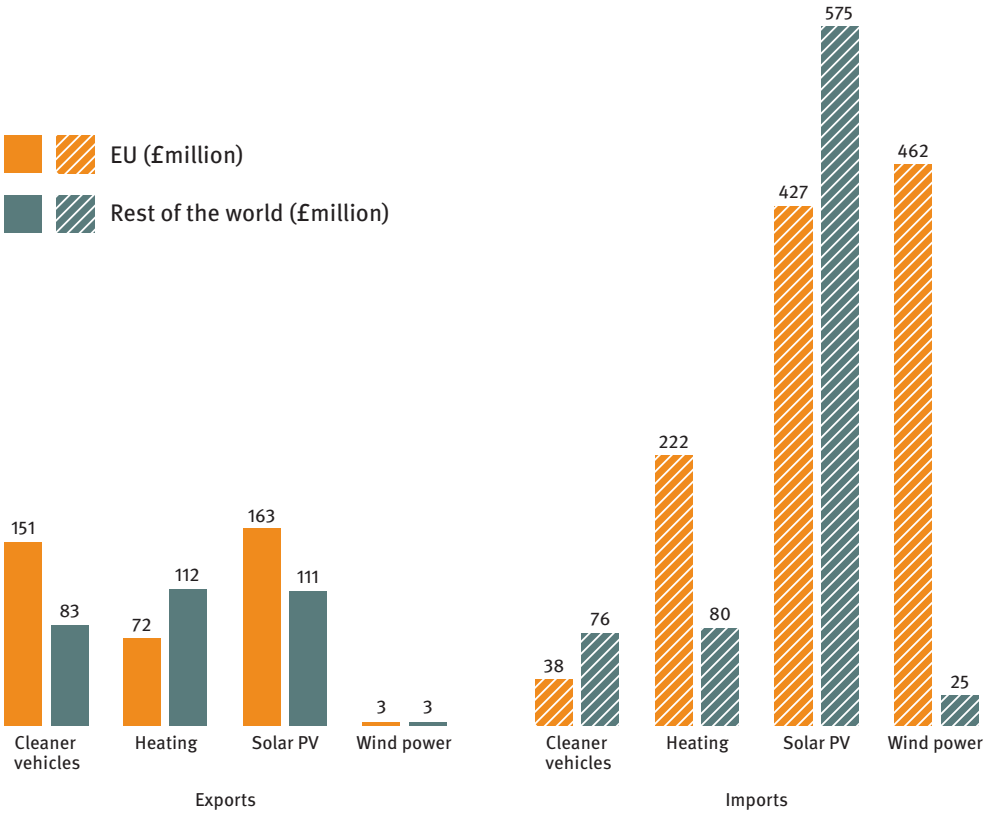
Opportunities for future UK trade in low carbon goods and services

Trade in low carbon goods and services contributed over £42 billion in Gross Value Added (GVA) to the UK economy in 2015, with energy efficient products and low carbon electricity being the most significant contributors. In terms of export opportunities, low carbon transport, offshore wind technology and energy services are expected to grow rapidly over the coming decade. The low carbon and renewable energy (LCRE) sector is estimated to increase five fold by 2030, potentially bringing two million jobs and contributing more than eight per cent of the UK's total output.[6]

As the graph below indicates, the UK's trade in low carbon goods is highest with the EU but there are significant opportunities for trade in solar PV, cleaner vehicles and heating with the rest of the world.

The estimated GVA contribution of this sector to the UK's economy over the next decade would be more than the long term benefits forecasted for free trade deals with Canada, Australia and New Zealand combined.[7]

Current UK trade in low carbon goods with the EU and the rest of the world [8]



Where the UK has a comparative advantage.[9]

Low carbon and renewable energy (LCRE) sector	Potential to capture the market share	Examples of current UK strengths
Energy efficient products	Medium	Smart grids, advanced building design, materials and manufacturing systems
Energy from waste and biomass	Low to medium	Biofuels, waste recycling techniques
Low carbon electricity	Medium	Offshore wind, energy storage, solar PV
Low carbon services	High	Finance, insurance, consultancy
Low emission vehicles, infrastructure, fuel cells and energy storage	Medium to high	Power systems and transmissions, batteries, logistics, telematics
Other products and services	Medium to high	Membranes, catalysts, bioprocessing

The UK's LCRE sector had a turnover of £12 billion in 2015 and is projected to almost quadruple to £44 billion by 2030.[10] Offshore wind already accounts for nearly 20 per cent of the GVA within the sector and, as costs of generation continue to fall, it is likely to contribute an increasing proportion of the sector's growth. The government has proposed a sector deal for the industry as part of its Clean Growth Strategy. An ambitious deal could see total installed capacity of 30 GW of offshore wind by 2030 with the potential to create at least 50,000 jobs across the country.[11] If achieved, this would be a six fold increase from the current installed capacity and would make offshore wind the largest source of domestic electricity. Delivering such ambition will depend on the nature of the future energy partnership with the EU.

The current and projected contribution of the low carbon and renewable energy (LCRE) sector to GVA and employment in the UK[12]

LCRE sector	Technology	GVA 2015 (in £ billions)	GVA 2030 (in £ billions)	Full Time Equivalent (FTE) employment 2015	FTE employment 2030
Low carbon electricity		12.5	44	161,000	562,000
	Offshore wind	2.2	15	13,000	37,000
	Solar photovoltaic	3.1	11	31,300	n/a
Low carbon heat	Renewable heat and renewable CHP	1.1	3.3	42,000	115,000
Low carbon services	Low carbon financial advisory	0.66	4.5	29,000	187,000
Low emission vehicles	Fuel cells and energy storage, low emission vehicle infrastructure	3.6	94.1	18,000	440,000
Energy efficient products	Efficient lighting, energy monitoring and other energy efficient products	20.2	55.7	91,000	248,000
Energy from waste and biomass	Bioenergy and alternate fuels	4.9	12.4	19,000	52,000
Total		**43**	**213**	**449,000**	**>2 million**

Low carbon trade opportunities with India

The total value of trade in goods and services between India and the UK has ranged from £16 billion to £20 billion annually since 2010.[13] In 2015, India ranked 17th on the list of trade exports by value, representing 1.5 per cent of total UK exports and 1.7 per cent of imports.[14]

A majority of this trade is not in low carbon goods. But, as the Indian market decarbonises, there will be a huge market opportunity. In 2016, Ricardo estimated that the value of the Indian low carbon goods and services market open to the UK ranged from £2.6 billion to £8.3 billion by 2022.[15] The higher estimate represents an almost 50 per cent growth in the value of trade between both countries within five years, just from the low carbon market.

To put this in context, this could would mean an export trade value greater than the UK's total combined trade in goods with Canada and Australia in 2015.[16]

Vehicles

Another estimate from the Commonwealth foresees an increase in trade value with India of over £2.1 billion with almost half of this being in the motor vehicles sector.[17] However, these estimates were made assuming low growth of low emission vehicles. Since the Commonwealth's report was published, India has committed to phasing out non-electric cars by 2030, which equates to avoiding, on average, the sale of three million new fossil fuel vehicles annually.

There is a significant opportunity for UK companies to expand early into this market, including huge government procurement. The Indian company Mahindra is the only passenger electric vehicle manufacturer in India and the government's decision has prompted the company's CEO to invite global EV car manufacturers to set up shop and drive competition in the country.[18]

Beyond low emission vehicles, India's automotive sector opens up further opportunities for trading in fuel efficient goods and services and electric vehicle charging infrastructure, areas in which the UK has already trialled different business models and regulatory approaches.

Energy

The government of India has set ambitious targets of 100 GW of installed solar capacity and 60 GW of wind capacity by 2022, pursuing an aggressive strategy of setting state wide capacity targets and using reverse auction mechanisms to drive competition. This has resulted in a dramatic drop in solar and wind tariffs, from as high as £150 per MWh for offshore wind in 2012 to £30 per MWh, for projects to be delivered by 2020.[19]

The UK has a comparative advantage in offshore wind, smart meters and grid management, grid scale and home battery storage, green financial services and power system electronics. All of these sectors have significant export potential, if a strategic approach is taken to support UK businesses in the very different Indian regulatory environment.

Setting high standards for low carbon goods and services

"The UK faces a binary choice, either to align its regulatory standards with the EU or the US, the two regulatory super powers."

As countries tighten their regulations to tackle air and water pollution and climate change, new markets will open up for environmental goods and services. For example, in Chile, government policy opened up the market to foreign investment while tightening environmental standards, increasing imports of environmental goods and services and eventually delivering high quality universal water potability and sanitation services.[20] High environmental standards and regulation in the UK would stimulate the growth of domestic industries prepared to take advantage of these rapidly growing international markets.

To realise the global Britain vision and support the development of free trade worldwide, it could be more advantageous for the UK to support multilateral trade agreements with groups of large countries rather than making bilateral deals with much stronger economies like the US or China.[21]

The Environmental Goods Agreement (EGA) is the most salient example of such an agreement: it is a plurilateral trade agreement, currently under negotiation, between 48 World Trade Organisation (WTO) members. It aims to bring tariffs on environmental goods down to zero. It is modelled on the Information Technology Agreement (ITA), signed in 1996, which is now contributing more than $1.6 trillion a year in trade value. The UK has been a strong supporter of the EGA, but the talks are deadlocked, with opposing Chinese and EU demands. It is unlikely that, having left the EU, the UK will be able to influence this, but it could seek to convene independent, smaller countries to help support clean growth through trade.

Once agreed, the EGA could eventually align the Paris climate agreement and low carbon trade. But, if it goes ahead in its current form, it will be limited: the EU's sustainability impact assessment of the EGA estimated it would contribute to a reduction of just ten million tonnes of CO_2 compared to its baseline scenario.[22] Significantly, it is limited because the UK's greatest strengths are in selling services, not goods.

The EU has already benefited from trading partners adopting its standards. It is likely that it will continue to wield its regulatory muscle and market power to drive greater harmonisation in standards across all signatories to any agreement, as is the case with the EU-South Korea trade agreement.[23,24]

To optimise its strengths and opportunities in the market, the UK should negotiate trade agreements that prioritise high regulatory standards designed to meet its decarbonisation objective and have a positive impact on its growing low carbon sector. Regulatory standards matter because they are the basis for some non-tariff barriers, which are by far the greater barriers for a service-oriented economy like the UK. The government should draw on its technical expertise to convince the EU to adopt them and then work with the EU to expand them internationally.

The choice over future regulatory alignment

Assuming the UK seeks a free trade agreement with the EU in the first instance, it will then look to the US for a deal. But it faces a binary choice, either to align its standards with the EU or the US, the two regulatory super powers.

Different objectives have led to different regulatory approaches in both regions. The EU has sought to achieve secure, affordable and low carbon energy. In doing so it has actively subsidised its renewable energy industry and introduced carbon trading and mandatory renewable energy targets. The UK was a highly influential co-author of this strategy.

The US has pursued 'energy independence'; it has favoured its shale gas industry under the Obama administration and is seeking to revive its coal industry under the leadership of Donald Trump. While states like California have pursued goals more like those in Europe, the rest of the US, for instance, does not have meaningful carbon pricing or carbon related fuel quality standards. Furthermore, the US is withdrawing from the Paris climate agreement and supporting centralised energy generation like nuclear and coal rather than renewables.

"The extended period of status quo offered by the Brexit transition period should be used to maximise UK trade in low carbon goods and services."

Given the UK's domestic carbon commitments, it looks challenging to establish regulatory alignment with the US in low carbon goods and services, so in this policy insight we focus on how to manage regulatory alignment, or divergence, with the EU. Because the UK will, in all likelihood, sign its first FTA with the EU, this will be the agreement that sets the tone for all future UK trade arrangements.

UK climate and energy priorities during the transition period

The extended period of status quo offered by a possible Brexit transition period should be used to maximise UK trade in low carbon goods and services. The UK has already said that it wishes to remain in the EU Emissions Trading Scheme (EU-ETS) until 2020, a decision that avoids disrupting the integrity of the EU-ETS.[25] Similarly, we have recommended that the UK also volunteers to participate in the EU's effort sharing regulation, which aims to ensure that most sectors contribute to greenhouse gas reduction, until at least 2020.[26]

During this time, the UK can participate fully in the internal energy market and optimise its trade with the EU. This will mean negotiating continued membership of regulatory bodies like the Agency for Cooperation of Energy Regulators (ACER) and the Energy Transmission System Operators (ENTSO-E and ENTSO-G). And, although Brexit should not immediately affect the British Standards Institute's membership of European standard setting bodies like CEN and CENELEC, it will be important to reinforce the UK's commitment to continued participation in these bodies, both during and after the transition phase.[27]

During the transition the UK will continue to make significant financial contributions to the EU budget, so it should negotiate continued access to low cost loans from the European Investment Bank (EIB). Over £10 billion has been invested in the UK's energy infrastructure via the EIB and other European funding agencies over the past five years.[28]

Finally, maintaining the Irish Integrated Single Energy Market will be absolutely critical and is non-negotiable for the island of Ireland. Northern Ireland imports 15 per cent of its power and EirGrid is projecting potential generation inadequacy by 2021, even assuming Northern Ireland remains within the internal energy market.[29] Ireland also depends on imports for almost 100 per cent of its gas supplies.[30]

Future alignment with the EU

In a Brexit where the UK leaves the single market and the customs union, new mechanisms and institutions will be needed to retain similar access to that which the UK currently enjoys. As the EU's chief negotiator, Michel Barnier, has noted: "This will not be easy. For the first time ever in trade talks, the challenge will be to limit divergence of rules rather than maximise convergence. There will be no ambitious partnership without common ground in fair competition, state aid, tax dumping, and food safety, social and environmental standards."[31]

In September 2017, the prime minister made specific remarks on how she foresees the negotiation on regulation, stating, "there will be areas which do affect our economic relations where we and our European friends may have different goals; or where we share the same goals but want to achieve them through different means. And there will be areas where we want to achieve the same goals in the same ways, because it makes sense for our economies."[32]

Harmonisation vs equivalence

The principle of regulatory harmonisation fits the last of Theresa May's categories: "the same goals in the same ways". EU ecodesign rules are an example, in that they apply in the same way to all members of the single market. The government's own sectoral impact assessments have identified electricity as one area where harmonisation will be essential to trade. They

show that "all international trading takes place with the EU", that "there are no proposals to build interconnectors to non-EU/EEA countries", and that the island of Ireland retaining full harmonisation in electricity is necessary to "maintain security of supply."[33]

Regulatory equivalence, by contrast, refers to one party acknowledging the other's regulation as equivalent to its own, owing to shared regulatory objectives: this is Theresa May's "same goal through different means" approach. For example, the EU shares equivalence agreements with a number of third party countries like Canada, India and Tunisia on rules governing organic agriculture.

The table below provides an inexhaustive snapshot of a few areas where regulatory harmonisation with the EU would have significant economic benefits for industry and consumers and where regulatory equivalence could meet the negotiating conditions laid out by both parties. The sums involved can be high: the European Parliament estimates that a more physically integrated single market in energy could result in annual efficiency gains of at least 250 billion euros.[34]

We recommend that the UK government undertakes a detailed analysis of where harmonisation or equivalence would be critical for sustaining barrier free trade with the EU.

Examples where harmonisation or equivalence will be necessary for barrier free trade

Regulatory harmonisation	Regulatory equivalence
Ecodesign and energy labelling standards	Carbon pricing and emissions trading mechanisms
Greenhouse gas emission standards for vehicles	State aid disciplines through setting up parallel state aid systems[35]
The internal energy market, including regulation on wholesale Energy Market Integrity and Transparency (REMIT)	Financial regulation in relation to energy commodity trading
Construction product standards	Industrial greenhouse gas emissions
REACH (Registration, Evaluation, Authorisation and restriction of Chemicals) regulation	Low carbon farming practices
Nuclear safety and safeguards	

(See annex one on page 18 for an explanation of this assessment.)

Regulation in the context of devolved administrations

For devolved administrations, the complexity of regulatory harmonisation compared to alignment increases. Scotland, for instance, has set ambitious climate targets and also aims to ban all fossil fuelled cars by 2032, eight years before the rest of the UK. It sees full participation in the EU's internal energy market and the customs union, and alignment with EU regulations, as critical to achieving this ambition. Devolved administrations pursuing significantly divergent policies post-Brexit could complicate and potentially delay the delivery of the UK's Clean Growth Strategy. It is, therefore, vital that the UK's negotiators transparently consider and manage the diverse interests and aspirations of the devolved administrations before setting out its regulatory pathway.

A UK-EU regulatory tracking forum to manage divergence

To manage areas of potential divergence, ie the prime minister's 'different goals' category, we propose a regulatory tracking forum. This builds on Article 21 of the agreement with Canada (CETA), which creates a Regulatory Cooperation Forum (RCF) with the intention of aligning regulation between the EU and Canada.[36] In contrast to CETA, we suggest a forum

"Similar to Norway, the UK should continue to contribute to wider EU carbon targets."

that identifies where both parties expect divergence in regulation, to quantify the consequences of such divergence and, ideally, to identify how to minimise negative economic consequences, by:

- sharing relevant information and reviewing regulatory developments across both parties, in consultation with respective regulatory departments;
- commissioning impact assessments of regulatory divergence on cost to businesses, consumers and the target of rapid decarbonisation;
- submitting policy amendments and other non-binding recommendations to the body ultimately agreed to govern UK-EU future trade partnership.

This forum would mirror the EU's existing Mutual Recognition Regulation. Under this regulation, states offer to provide free information on their national technical rules and set out a standard procedure for enforcing them. This ensures that, in areas where deep regulatory harmonisation is not achieved or is unnecessary, mutual recognition allows for continued legal trading across member states.

Within the context of energy and climate policy, the UK is expected to transpose the EU's Clean Energy Package and its associated directives and regulations into domestic law. This legislative package is expected to govern the energy transition across the EU until 2030.

A joint regulatory forum could be used to avoid the UK's departure from the EU preventing the EU's 2030 emission targets from being met, as the EU benefits from a significant contribution from the UK.[37] Our recommendation is that, similar to Norway, the UK should continue to contribute to wider European carbon targets.[38]

Borrowing from CETA, the proposed forum could be co-chaired by senior representatives of the UK government, at the level of a deputy minister, and of the European Commission, at the level of a director general. Beyond this, such a forum should establish greater transparency and accountability. It is critical that civil society stakeholders and businesses are engaged in the process and have their say in the negotiations.

Mutual recognition agreements for the transport sector

Brexit poses a significant challenge to the UK's automotive sector. If the UK and the EU trade on World Trade Organisation (WTO) terms post-Brexit, tariffs as high as ten per cent could be imposed on vehicles moving across borders, with an SMMT analysis suggesting that the UK's motor industry could face an additional £4.5 billion in value of import and export tariffs alone.[39] The UK's automotive sector is highly interlinked with the EU, as more than half of the roughly 30,000 small components of a car are imported from outside the UK.[40] Eighty per cent of cars manufactured in the UK are exported and half of them are sold to the EU, so it will be important to maintain strong regulatory co-operation with the EU post-Brexit. The EU's automotive market is worth over £42 billion, more than six times the size of the United States and almost three times the combined value of trade flows in the top ten nations outside the EU.[41]

Regulatory harmonisation will be important in areas like emission standards, product recycling, product safety and type approval and data protection regulation. Divergence within these areas would amount to non-tariff barriers, increasing costs and reducing the competitiveness of the manufacturing base and the ability to sell vehicles. The government's assurances to Nissan, to sustain its investments in the UK by offering "free and unencumbered" trade with EU countries, will require strong regulatory harmonisation.[42]

If the UK chooses to forego harmonisation out of a desire to diverge from the EU, mutual recognition agreements (MRAs) can partly reduce the new administrative and transaction barriers to trade that divergence would create. An MRA between the UK and the EU could perform two functions: it could be used to recognise the certification of manufactured automotive goods, so these can continue to be traded; second, it can offer some degree of confidence for investors to continue to invest in the UK automotive research and manufacturing sectors. In practice, this would require the UK to commit to the same goals as EU regulation, and would be a much weaker guarantee, as MRAs can be suspended comparatively easily, and resolving trade disputes can take several years, compared with the relatively efficient and quick mechanisms of the single market.

The UK's trade white paper affirms the government's commitment to providing high quality manufacturing that adheres to, or even surpasses, international standards. Given the EU's market size, its standards are often adopted by non-EU countries, including China, enabling them to sell into the large EU market. Similarly, the EU-Japan Economic Partnership Agreement, states that "the agreement ensures that both Japan and the EU will fully align themselves to the same international standards on product safety and the protection of the environment, meaning that European cars will be subject to the same requirements in the EU and Japan, and will not need to be tested and certified again when exported to Japan. This also paves the way for even stronger co-operation between the EU and Japan in international standard setting".[43] EU standards will continue to influence the UK vehicle manufacturing sector and, therefore, regulatory harmonisation or mutual recognition will be critical to maintain free trade.

Key features of a trade deal to aid UK clean growth

The UK's future FTAs should be underpinned by principles and strategies that ensure positive environment and climate outcomes in the long run and the following three actions will be essential to achieving that:

Enshrine Paris climate agreement ambitions in trade strategy

The Paris climate agreement, which the UK had a strong role in securing, has spurred a growing market for low carbon goods: the IEA estimates investments will be necessary to the tune of $1 trillion a year between 2016 and 2050 to stay in line with the two degree target set by the agreement.[44]

The UK should use the agreement's Intended Nationally Determined Contributions (INDCs), setting out countries' reductions in greenhouse gas emissions, as a guide to determine which countries to trade with. This would add an export focused component to the UK's industrial strategy. Trade negotiations could also encompass research and development, technology transfer and capacity building in developing economies, within the overall trade liberalising objectives of the FTA.

Continue to use sustainability impact assessments

Modern FTAs tend to include dedicated chapters on environmental sustainability, but they are often unenforceable and do not reflect the actual sustainability of the trade agreement, once ratified. To address this, the UK should build on the EU's sustainability impact assessment (SIA) approach. This is necessary to analyse the expected impact of a trade agreement on the environment, prior to its ratification, to better inform the negotiations. More importantly, provisions to amend the trade agreement in line with post-implementation impacts are needed to meet sustainability objectives."[45] This would ensure that the UK is able to pursue and maintain high standards in relation to trade.

Safeguard environmental principles and regulation

One of the risks involved in doing trade deals is the temptation to trade away principles and regulation in exchange for market access. The government should minimise this risk by following the EU's approach to safeguarding key principles, including the precautionary principle, polluter pays, sustainable development and the rational utilisation of scarce natural resources.

Furthermore, to protect the UK from being undercut by environmental dumping, it should adhere to, and also oblige its trade partners not to use, environmental standards as a bargaining chip for expanding or retaining foreign investment in its respective territories.[46] Enshrining this principle in the legal text of future FTAs will underscore the government's commitment to maintaining high standards of consumer, worker and environmental protection.

An analysis of existing free trade agreements

We have analysed existing FTAs to understand which might offer useful models for future UK agreements in relation to low carbon trade. This is summarised in the table below. For the analysis behind these conclusions, see annex two on page 20.

Green boxes indicate positive aspects of the agreements, which the UK would benefit from replicating in its own free trade agreements.
Amber boxes indicate those areas that have some good characteristics but which will need improvement to be suitable for the UK.
Red boxes indicate aspects which are harmful to the environment. We recommend that these elements are not included in future UK agreements.

Trade agreement	Principles	Low carbon trade	Investor – state arbitration	Regulatory convergence	Governance and institutions
CETA[47] The Comprehensive Economic Trade Agreement (CETA) between the European Union, its member states and Canada.					
NAFTA[48] The North American Free Trade Agreement (NAFTA) is a deal between the US, Canada and Mexico.					
EU-Singapore[49]					
EU-Ukraine Association Agreement[50]					
EU-South Korea[51]					
European Economic Area (EEA - a Norway style deal)[52]					

A model free trade agreement for low carbon trade

Building on our analysis, we propose the inclusion of the following components in any FTA for the UK with the EU and other trading partners, to ensure it benefits fully from the opportunities of low carbon trade.

	Recommendations
Principles	Environmental principles, particularly the precautionary principle and polluter pays principle, are clearly enshrined in the agreement.
Low carbon goods and services	At a multilateral level, secure the Environment Goods Agreement (EGA) to eliminate tariffs on all environment related goods while ensuring a flexible approach to listing and delisting and revising the nature of goods within the agreement. Prioritise environmental goods and services in subsequent trade agreements with other countries. Include low carbon research and innovation in the agreement, particularly focusing on technology transfer, intellectual property rights and capacity building in developing economies. Include the above two points within a dedicated low carbon trade chapter.
Regulatory co-operation	Establish a regulatory tracking forum aimed at managing the implications of regulatory divergence between parties. Establish mutual recognition arrangements in relevant areas, like transport, where sustained regulatory equivalence is mutually beneficial for trade.
Governance	Place the Paris climate agreement commitments at the heart of negotiations, to assist trade in the low carbon market, particularly with emerging economies like India and China. Conduct sustainability impact assessments before and after ratification, with meaningful engagement from civil society. Set up a compliance committee, supported by independent advisory bodies, to monitor and evaluate the implementation of sustainability criteria. Secure the above within a legally binding framework, similar to the joint interpretive statement issued with CETA.
Arbitration	The EU's association agreement with Ukraine is a strong legal framework the UK could follow and build upon, particularly in a future FTA with the EU. Such an agreement could ensure the mutually shared outcomes on energy and climate are achieved while maintaining compatibility with the UK's and the EU's political red lines and objectives.

Conclusion

Over 40 per cent of the UK's trade in goods and services is with the EU and it is likely to remain the single largest market for the UK post-Brexit. The UK has been integral to the EU's energy union, contributing to its evolving market rules and facilitating greater energy integration amongst European countries. This mutually beneficial arrangement has not just kept energy affordable for UK consumers but it has also offered a robust framework for global leadership on tackling climate change.

As the UK leaves the EU, it must choose whether to align itself with the EU or the US, as they are the two dominant regulation setters in the world. For the low carbon and renewable energy sector and all the industries it encompasses, it is clear that regulatory alignment with the EU is preferable to enable it to continue to thrive and expand its contribution to UK trade in future; and where there must be divergence, a free trade agreement should be negotiated that maximises the opportunities for the sector.

Annex one

Examples where harmonisation or equivalence will be necessary for barrier free trade

Regulatory harmonisation

Ecodesign and energy labelling standards have been highly beneficial in cutting down the UK's energy use by encouraging energy efficient products. Repealing or rolling back standards could add almost £90 to the average UK household's bill.[53]

Greenhouse gas emission standards for vehicles. These are a critical factor in directing business investment towards cleaner, more efficient vehicles. The UK should harmonise its vehicle emission standards to avoid disrupting the domestic automotive market in the short term and consider enhancing the standards in line with its carbon budgets and in consultation with stakeholders like the Committee on Climate Change, businesses and civil society.

The internal energy market. The National Grid estimated an annual loss of £0.5 billion to UK consumers by 2020 from leaving the internal energy market (IEM).[54] The IEM is driven by clear rules that significantly align with the UK's domestic energy and climate goals. Maintaining regulatory harmonisation, while negotiating access to rule making and other technical bodies, like the Agency for the Cooperation of Energy Regulators (ACER), will be in the UK's interests. Similarly, REMIT or the Regulation on wholesale Energy Market Integrity and Transparency, that facilitates information sharing and implements rules to prevent insider trading and abuse of the market, is a clear area to maintain harmonisation with the EU

Construction products. Manufacturers of construction products that operate or sell in both the UK and rest of Europe are unlikely to accept a twin regulatory system with different sets of standards and compliance procedures, resulting increased costs of doing business.[55] The Construction Products Regulation is already embedded in the UK's national legislation and should remain harmonised with European Norms (ENs).

REACH. The EU's Registration, Evaluation, Authorisation and restriction of Chemicals regulation is the most advanced system in the world for protecting people and the environment from thousands of harmful chemicals. Attempting to create a UK equivalent would be enormously expensive and time consuming. Maintaining REACH and accepting the jurisdiction of the European Court of Justice in this area is necessary to keep the same levels of protection from chemicals in the UK.[56]

Nuclear safeguarding. The UK's nuclear safeguarding requirements are managed by EURATOM, a European agency that provides safeguarding inspections for more than 100 facilities in the UK. The BEIS select committee has been unequivocal in stating that "Government should seek to retain as close as possible a relationship with Euratom, and that this should include accepting its delivery of existing safeguards requirements in the UK".[57]

Regulatory Equivalence

Carbon pricing. This is currently a mix of the UK's unilateral decision to impose a carbon support price on top of the price discovered through the EU Emissions Trading Scheme (ETS). The EU-ETS has failed to deliver a consistent carbon price that directs investments towards clean energy. Post-Brexit, regardless of the UK's participation in the EU-ETS through the establishment of a new domestic ETS, a progressively rising carbon price should be enforced. This remains a domestic policy choice for the UK that needs to balance the aims of meeting the carbon budgets while maintaining a competitive edge for its industry. Achieving such a balance will require supporting industry to be more energy and resource efficient.

State aid. This is a contentious issue that has raised concerns for the EU through its implications on distorting markets and disrupting the level playing field that is needed for cross border trade.[58]The UK has historically granted much less state aid than other comparable member states and has demonstrated its support for the continuance of a robust domestic state aid regime. Post-Brexit, the UK can establish a parallel or domestic set of state aid disciplines "with an independent competition authority under the UK government that could undertake a screening for competition distortions, whereby only state aid that would be likely to distort competition to a significant extent would require further investigation, thereby focusing on enforcement".[59] Different interpretations and applications of rules could arise but, given the harmonisation that the EU and UK start from, divergence needs to be managed through forums such as the regulatory tracking forum recommended in this report.

Financial service regulation. A recent analysis from Norton Rose Fullbright has elaborated on a bespoke framework of regulatory equivalence that can be negotiated with the EU in the context of financial service regulation.[60] The UK government has already accepted the need for equivalence that minimises the disruption to financial services trade across the EU. This analysis extends to regulation in relation to energy commodity trading.

Industrial greenhouse gas emissions. These are regulated primarily through the Industrial Emissions Directive (IED), limiting the amount of pollutant emissions from industrial installations by obligating all sites to operate on Best Available Techniques (BAT). Coal reliant countries have consistently lobbied to avoid these obligations but with a commitment to phasing out coal by 2025 and recently adopting the new BAT reference documents (BREFs), it is unlikely that the UK will dilute its obligations on coal installations post-Brexit.[61] The IED should nonetheless aim to regulate emissions in line with the UK's climate targets.

Low carbon farming. Farming policy as a whole is expected to undergo significant change post-Brexit. The powers set out in the government's agriculture bill will not only be the base for the creation of future payment schemes for land managers, but will also shape the UK's approach to land management throughout the transition period. The bill should provide a meaningful articulation of 'public money for public goods', focused on achieving positive environmental outcomes from future land management practices.

Annex two

An analysis of existing free trade agreements

CETA

The Comprehensive Economic Trade Agreement (CETA) is a free trade agreement between the European Union, its member states and Canada. It was agreed on 21 September 2017.

Both the Canadian government and the European Parliament have signed the document and it is being applied provisionally, awaiting ratification by the EU's member states.

Principles	The preamble includes the parties' commitment to promote sustainable development, as well as their commitment to the development of international trade in a way that contributes to sustainable development. The chapter on trade and environment does not include any other principles explicitly. CETA safeguards the precautionary principle that is included in the EU treaties and allows the EU to apply it according to its own reading of the principle, which is stricter for the EU than it is for Canada.
Low carbon trade	CETA does not include a low carbon or energy chapter. However, Article 24.9 on 'trade favouring environmental protection' urges parties to pay special attention to facilitate the removal of obstacles for trade in climate change mitigation goods and services as well as trade or investment in renewable energy goods and related services. The Regulatory Cooperation Forum within CETA could be expected to facilitate this.
Investor - state arbitration	CETA includes an Investment Court System (ICS) with permanent judges and an appeal mechanism. The differences between ICS and Investor State Dispute Settlement (ISDS) are not yet fully known as it is a new model introduced for the first time under CETA. However, the main concern about ISDS allowing corporations to sue states for their environment, public health or human rights policies has not been addressed.
Regulatory convergence	A Regulatory Cooperation Forum (RCF) is established under CETA. The RCF constitutes regulators from both parties. They will discuss regulatory issues of mutual interest, review regulatory initiatives and help with the development of bilateral co-operation activities to encourage regulatory convergence. The forum will report to the CETA Joint Implementation Committee that oversees the implementation of the agreement.
Governance and institutions	The CETA Joint Implementation Committee will oversee the implementation of the agreement and the work of the RCF. A Committee for Trade and Sustainable Development oversees the implementation of the chapter on trade and environment, which also includes a Civil Society Forum, composed of organisation representatives in the territories of both parties and conducts dialogue on the sustainability element of the chapter.

Key

Green boxes indicate positive aspects of the agreements, which the UK would benefit from replicating in its own free trade agreements.

Amber boxes indicate those areas that have some good characteristics but which will need improvement to be suitable for a UK agreement.

Red boxes indicate aspects which are harmful to the environment. We strongly suggest that these elements are not included in future UK agreements.

NAFTA

The North American Free Trade Agreement (NAFTA) is a deal between the US, Canada and Mexico that came into force on 1 January 1994.

It is being renegotiated with significant changes likely, including on energy and low carbon trade.

Principles	The preamble refers to the promotion of sustainable development, but does not mention any other principles or environmental safeguards.
Low carbon trade	Includes a chapter on energy and petrochemicals. There are several problems with this chapter from an environmental perspective. It is very heavily focused on fossil fuels and limits Canada's ability to restrict the decrease of their production of polluting tar sands. It is not very specific, leaving parties to interpret it as they please. Finally, Mexico is not a party to this chapter, although constitutional changes mean it could now be. However, there is no indication when or if this will happen.
Investor - state arbitration	Investor State Dispute Settlement (ISDS) is part of NAFTA. Through an ISDS system, an investor can sue a government that is party to the agreement for alleged discriminatory practices. Notably, of all cases brought under chapter 11 of NAFTA until 2015, 63 per cent involved charges for environmental protection or resource management. A recent example of an ISDS case under NAFTA is TransCanada v the United States. TransCanada filed a $15 billion lawsuit against the US, after President Obama decided to reject the Keystone XL project, a pipeline running from Alberta in Canada to oil refineries in Illinois and Texas. TransCanada owned the pipeline and considered the decision discriminatory and thus filed the law suit. This was suspended when President Trump reversed the decision.
Regulatory convergence	NAFTA does not contain a regulatory co-operation mechanism. Instead it urges parties to the energy chapter to avoid disruption of contractual relationships to the maximum extent practicable in the application of any regulatory measure, ie by setting pollution standards or incentives.
Governance and institutions	NAFTA has set up numerous committees to oversee the implementation of the agreement, including a Financial Services Committee to a Committee on Agricultural Trade.

EU-Singapore

The free trade agreement between the European Union and Singapore was finalised on 17 October 2014, but implementation has since been delayed due to a request for clarification about its ratification. The European Court of Justice ruled that all member states need to approve the deal before the EU can finalise its negotiations. It is unclear when this free trade agreement will come into force.

Principles	The preamble states that the parties are determined to act in accordance with the objective of sustainable development and that the promotion of trade and investment needs to be done in a manner mindful of high levels of environmental protection. It recognises the international standards and agreements to which the parties are also party to, and urges them to act into accordance with them.
Low carbon trade	Chapter seven deals with non-tariff barriers to trade and investment of renewable energy generation. It has limited scope, because the chapter only deals with renewable energy generation and not with energy efficiency or other areas relevant to clean growth.
Investor - state arbitration	ISDS is part of the agreed text and does not resolve any concerns around the undemocratic nature of this dispute settlement mechanism. It allows corporations to sue states for their environment, public health or human rights policies. In December 2017, it became clear that the EU has been able to convince Singapore that instead of ISDS an ICS will be part of the trade agreement. However, the concerns still stand.
Regulatory convergence	The parties agreed to set up regulatory co-operation initiatives appropriate for the sectors or issues they are collaborating on. This includes avoiding unnecessary divergence to technical regulations and conformity assessment procedures to prevent barriers to the bilateral trade between the parties, with the eventual goal to adhere to international standards.
Governance and institutions	The agreement sets up a trade committee to ensure that it operates properly.

EU-Ukraine Association Agreement

The Association Agreement between Ukraine, the EU and its member states is a framework for enhanced co-operation between the parties.

The agreement came into force on 1 September 2017.

Principles	The preamble includes commitment to enhancing energy security, promoting energy efficiency and the use of renewable energy resources. The parties commit themselves to enhancing co-operation in the field of environmental protection and to the principles of sustainable development and a green economy.
Low carbon trade	The agreement contains a comprehensive chapter on energy co-operation, including renewable energy resources and energy efficiency, in line with the energy efficiency and renewable energy directives. For energy efficiency, this includes amongst other things the public sector having to purchase energy efficient buildings, products and services, but also the empowerment of energy consumers to make better choices. For renewable energy this includes the development, and support for, alternative fuels, and co-operation on regulatory issues, certification and standardisation.
Investor - state arbitration	The agreement does not include an ISDS mechanism yet, but the parties set out to include ISDS procedures in the agreement at a later stage.
Regulatory convergence	It discusses the fact that Ukraine needs to converge with EU rules and standards through regulatory reforms. Practically, this means that Ukraine needs to adopt the full energy acquis in preparation for potential EU membership one day. The EU thus does not move towards Ukrainian rules and standards, only Ukraine moves towards EU standards.
Governance and institutions	An Association Council at ministerial level is established to oversee the implementation of the agreement. A Parliamentary Association Committee is established with members from both the Ukrainian parliament and the European parliament.

EU-South Korea

The EU-South Korea free trade agreement was signed in 2010, ratified in 2015 and came into force in 2017.

Principles	The preamble includes the parties' commitment to sustainable development and stresses their conviction of the contribution of international trade to sustainable development. The trade and sustainable development chapter commits the parties to the implement the multilateral environmental agreements they are part of.
Low carbon trade	The agreement does not include a specific chapter on energy or low carbon trade. However, trade favouring sustainable development is explicitly included in the trade chapter. Co-operation on trade related aspects of the current and future international climate regime, including carbon markets, the adverse effects of trade on the climate and the promotion of low carbon technologies and energy efficiency, is included in an annex.
Investor - state arbitration	ISDS is part of the agreed text and does not resolve any concerns around the undemocratic nature of this dispute settlement mechanism. It allows corporations to sue states for their environment, public health or human rights policies.
Regulatory convergence	This agreement is the first FTA to include sector specific disciplines on non-trade barriers to trade, including on electronics and motor vehicles and their parts. In practice, this means that European car manufacturers do not have to conduct test to show compliance with Korean safety standards, as cars manufactured in the EU have already gone through the EU tests that are considered equivalent. A Working Group on Mutual Recognition Agreements on Services exists to help overcome regulatory challenges for the service sector.
Governance and institutions	The agreement includes a Trade Committee that oversees the implementation of the agreement. It also entails a Committee on Trade and Sustainable Development and a Working Group on Motor Vehicles and Parts. Importantly, the EU-South Korea FTA is the first free trade agreement that has been subject to post ratification sustainability impact evaluations. The European Commission uses these to assess whether the actions they took were justified and reach their objectives, as well as to identify any unintended consequences.

European Economic Area (EEA) or 'Norway style' deal

The EEA unites the EU member states and the three EEA EFTA States (Iceland, Liechtenstein and Norway) into an internal market governed by the same basic rules. It came into force on 1 January 1994.

Principles	The agreement fully adopts the European Union's four freedoms of free movement for persons, capital, services and goods. The agreement creates equal conditions of competition, and the respect of the same rules, with a view to creating a homogeneous European Economic Area.
Low carbon trade	There is no specific agreement on low carbon trade given the significant alignment of regulation around the single market. EEA members are free to pursue their own decarbonisation strategies but are increasingly aligning their targets with the EU.
Investor - state arbitration	All EEA members must automatically implement all the EU acquis concerning the single market. All must comply with rulings of the EFTA court. In the majority of cases these rulings follow European Court of Justice principles.
Regulatory convergence	The EU aims for maximum regulatory convergence with all EEA members, in areas where the EEA access the EU single market. EEA members have very little formal influence over the making of regulations, effectively making them rule-takers
Governance and institutions	EEA members are not represented in EU institutions but engage with them as observers or through other mechanisms. Decision making control is in the hands of EU member states. EEA states are free to strike trade deals with non-EU countries.

Endnotes

[1] Legatum Institute, 4 November 2017, *The UK government needs to act now if we are to make 'Global Britain' a reality*

[2] P Ungphakorn, 8 November 2017, 'What WTO leadership means and where the UK would fit in', tradebetablog.wordpress.com/2017/11/08/uk-wto-leadership/

[3] World Trade Report, 2012, *D. The trade effects of non-tariff measures and service measures*

[4] International Finance Group, 2016, *Climate investment opportunities in emerging markets*

[5] EU-Ukraine Association Agreement, 29 May 2014

[6] Ricardo, Energy & Environment, 2016, *UK business opportunities of moving towards a low carbon economy*

[7] The UK has developed an analysis of the potential benefits of a free trade agreement with Canada. We assume rough estimates for Australia and New Zealand in relation to the size of trade with Canada. We used the OECD data on long term GDP growth projections and Ricardo's estimates on the UK's GVA from global low carbon trade. See: House of Commons Library, 12 September 2017, 'CETA: the EU-Canada free trade agreement', http://researchbriefings.parliament.uk/ResearchBriefing/Summary/CBP-7492"

[8] Average trade values 2011-2014, taken from from UN Comtrade. M Carvalho and S Fankhauser, April 2017, 'UK export opportunities in the low carbon economy', Grantham Research Institute on Climate and Environment, LSE

[9] Ricardo, Energy & Environment, (for the Climate Change Committee), 2017, *UK business opportunities of moving to a low carbon economy*

[10] Ibid

[11] RenewableUK, 'Off-shore wind', www.renewableuk.com/page/OffshoreWind (for the Climate Change Committee)

[12] Ricardo, Energy & Environment, 2017, *UK business opportunities of moving to a low carbon economy*. The numbers given in this table are at the lower end of the estimates.

[13] Foreign and Commonwealth Office, 2016, 'India: Trade factsheet', www.gov.uk/government/publications/india-trade-fact-sheet--2

[14] Ibid

[15] Ricardo, Energy & Environment, 2016, *UK business opportunities of moving towards a low carbon economy*

[16] Office for National Statistics. April 2016, 'UK trade statistical bulletin'

[17] Banga, September 2016, 'Brexit: opportunities for India'

[18] *The Economic Times*, 2 June 2017, 'Anand Mahindra's amusing reply to Elon Musk's tweet on 100% EVs in India'

[19] S Mahapatra, 25 December 2017, 'India auctions 750 megawatts of solar at 3.9¢/KWh', https://cleantechnica.com/2017/12/25/india-auctions-750-megawatts-solar-%C2%A23-9-kwh/

[20] ECD Joint Working Party on Trade and Environment, 19 November 2014, 'The stringency of environmental regulations and trade in environmental goods'

[21] PWC, November 2016, *UK trade prospects after Brexit*, www.pwc.co.uk/economic-services/ukeo/ukeo-nov16-trade-prospects-after-brexit.pdf

[22] European Union, Directorate General Trade, 2016, *Final report - Trade SIA on the Environmental Goods Agreement*

[23] A Portugal Perez, J Daniel Reyes and JS Wilson, 1 April 2009, 'Beyond the information technology agreement: harmonisation of standards and trade in electronics', World Bank Open Knowledge Repository

[24] EU-Singapore free trade agreement, May 2015, article 7.5

[25] Lord Prior of Brampton, 26 October 2017, answer to EU emission trading scheme: written question - HL2265

[26] Green Alliance, 2017, *Negotiating Brexit: positive outcomes for the UK on climate and energy*

[27] BSI Group, 2017, *What Brexit means for industry standards: maintaining status and influence for UK industry*

[28] G Frederikson, A Roth, S Tagliapietra and G Zachmann, November 2017, 'The impact of Brexit on the EU energy system'
[29] Eirgrid Group, 2016, 'Generation capacity statement 2016-2025'
[30] North-South Interparliamentary Association, 24 September 2013, 'Energy Security', paper 132/13
[31] M Barnier, speech to the Centre for European Reform, 20 November 2017, 'The future of the EU'
[32] Prime Minister Theresa May, 22 September 2017, 'Florence speech: a new era for co-operation and partnership between the UK and the EU'
[33] House of Commons, December 2017, 'Electricity and renewables sector report', www.parliament.uk/documents/commons-committees/Exiting-the-European-Union/17-19/Sectoral%20Analyses/12-Electricity-and-Renewables-Report.pdf
[34] European Added Value Unit, April 2015, 'Mapping the cost of non-Europe 2014-2019'
[35] M Schonberg, April 2017, *Comparative Law Journal*, 'Continuity or change? State aid control in a post-Brexit United Kingdom'
[36] EU-Canada Comprehensive Economic and Trade Agreement (CETA), 30 October 2016, article 21
[37] Green Alliance, 2017, *Negotiating Brexit: positive outcomes for the UK on climate and energy*
[38] Ibid
[39] SMMT, 'Brexit', www.smmt.co.uk/industry-topics/brexit/
[40] *Financial Times*, 30 July 2017, 'Brexit triggers a great car parts race for UK auto industry'
[41] SMMT, 29 March 2017, 'UK automotive sector demands government delivers deal to safeguard competitiveness'
[42] *The Guardian*, 30 October 2016, 'UK seeking tariff free EU-deal for carmakers, Nissan told'
[43] European Commission, 6 July 2017, 'EU-Japan Economic Partnership Agreement fact sheet'
[44] A Cosby, 18 May 2016, 'The Paris Climate Agreement: what implications for trade?', OECD
[45] Kommerskollegium National Board of Trade, 27 May 2015, 'Implementation and enforcement of sustainable development provisions in free trade agreements – options for improvement'
[46] A Berger, C Brandi and D Bruhn, February 2017, 'Towards "greening" trade?', German Development Institute
[47] EU-Canada Comprehensive Economic and Trade Agreement (CETA), 30 October 2016
[48] North American Free Trade Agreement (NAFTA), 1 January 1994
[49] EU-Singapore Free Trade Agreement (EUFSTA), 1 May 2015
[50] EU-Ukraine Association Agreement, 29 May 2014
[51] EU- South Korea Free Trade Agreement, 1 July 2011
[52] Agreement on the European Economic Area, 1 January 1994
[53] Energy & Climate Intelligence Unit, August 2017, *Made in China: importing higher energy bills*
[54] Department of Energy and Climate Change, press release, 24 March 2016, 'Electric shock of Brexit could see UK energy costs rocket by half a billion'
[55] Local Authority Building Control, 'What will Brexit mean for manufacturing standards?', www.labc.co.uk/news/what-will-brexit-mean-manufacturing-standards
[56] Green Alliance, November 2017, *A new direction for UK resource strategy*
[57] Parliament.uk, answer to parliamentary question, 13 December 2017, 'Leaving the EU: implications for the civil nuclear sector', https://publications.parliament.uk/pa/cm201719/cmselect/cmbeis/378/37811.htm
[58] Ad hoc working party on Article 50, 25 January 2018, *Level playing field: an introduction*, https://ec.europa.eu/commission/sites/beta-political/files/level_playing_field.pdf

[59] M Schonberg, April 2017, *Comparative Law Journal*, 'Continuity or change? State aid control in a post Brexit UK'
[60] J Herbst and P Snowdon, 12 January 2017, 'Examining regulatory equivalence', Norton Rose Fulbright
[61] P Davies and M Green, 5 May 2017, 'European Union: trouble ahead? Lobbying underway to prevent the extension to the industrial emissions directive', Mondaq

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