Summary briefing followed by Questions and Answers

Summary briefing

The current situation and challenge for the future

The need to limit global warming to 1.5°C or even 2°C demands a rapid phase-out of fossil fuel burning worldwide, and the protection, regeneration and, where necessary, sensitive restoration of ecosystems, including forests and healthy soils.

In the UK – as in most other countries – this requires deep and speedy changes to energy policy. In 2016, 82% of the UK’s energy came from fossil fuels. Fossil fuel burning generated 54% of electricity, and biomass and waste burning – which are far from zero or low-carbon – a further 9%. There have been some positive developments, but far too few, too slow and many of them reversed by Government policy since 2016. Key positive trends in recent years have been:

- a trebling of wind and solar power between 2011 and 2016 (until the Government ended subsidies for almost all new onshore wind and solar capacity and amended planning policies to block new solar farms and onshore wind turbines in England);

- sustained declines in overall energy use (partly through home energy efficiency measures, recently abolished or cut);

- the UK having become the world leader in offshore wind generation (still supported by Government policies).

As of early August 2018, the EU has rejected the UK’s proposal for a Withdrawal Agreement and the Prime Minister has been given no mandate by either Parliament or her own party to accept or propose a different one. The risk of a no-deal Brexit is higher than ever.

The wider social and economic threats associated with a no-Deal Brexit have been widely exposed in the media. The threats posed to environmental policy in general are well-documented, for example by Friends of the Earth\(^1\) and Greener UK\(^2\). This briefing focusses on the implications for UK energy policy, however, it also includes a section about the implications for Ireland,\(^3\) which would be affected far more than any other remaining EU state.

Multiple threats to a cleaner energy future posed by a no-deal Brexit

A no-deal Brexit would undermine any transition to low-carbon renewable energy and greater energy efficiency and conservation for several reasons:
1. The UK would leave EU’s Internal Energy Market. Smooth and affordable electricity trading is vital for an expansion of solar and wind power. As shown below, this would undermine efforts to reduce reliance on high-carbon energy sources in Ireland, too;

2. Energy prices would rise, which would create strong political pressure to support the cheapest energy sources and investments, regardless of climate and other adverse impacts. Higher energy prices can be expected to reduce UK energy use, but at the cost of spiralling fuel poverty;

3. In the absence of an agreement with the EU, all access to new EU funds will be lost, including low-interest loans from the European Investment Bank. This will make it far harder to raise funds for new offshore wind or tidal projects;

4. The interest groups actively promoting a no-deal Brexit are seeking far-reaching trade agreements with the US and other countries based on sweeping deregulation, i.e. a race to the bottom as far as environmental and climate standards are concerned (as well as public health, food safety, etc.). Regardless of which government was in power during or after a no-deal Brexit, it would be under great pressure to sign any trade agreement on offer, given that the UK would find itself the only country (with the apparent exception of Mauritania) to be trading solely under World Trade Organisation rules.

All of those factors combined favour long-term and likely increased reliance on fossil fuels. Furthermore, the rush to new trade agreements will lead to the dismantling of existing regulations and a block on new ones, including any regulations which still stand in the way of dirty energy schemes, be it big biomass, waste incineration or fracking.

Questions and Answers

1. Would the lights go off?

2. Why is leaving the European Internal Energy Market bad for the climate?

3. What will a no-deal Brexit mean for coal and fossil gas?

4. Won’t a no-deal Brexit at least mean that the UK will no longer have to implement harmful EU biofuel and biomass policies?
1. Would the lights go off?

Across Britain, energy (i.e. heat or electricity) shortages in spring 2019 appear considerably less likely than a disruption of food and medicine supplies.\(^a\)

This statement does not apply to Northern Ireland, which is has a Single Energy Market with the Republic of Ireland and is a net importer of electricity. The legal and practical implications of a hard Brexit for the Single Energy Market are beyond the scope of this briefing. However, the Financial Times reported in June 2018 that UK civil servants had drawn up plans for emergency diesel generators on barges to deal with potential blackouts.\(^4\)

Even if all electricity trading between the UK and EU was suspended – an unlikely scenario - Britain would have more than enough operational but idle coal power station capacity to compensate.

44% of gas used in the UK is imported from Europe, most of it from Norway (a member of the European Free Trade Area but not the EU). Given that gas is imported either by pipeline or, in the case of LNG (which generally comes from outside Europe) by ship, there seems to be little risk of physical trade disruption post-Brexit. Furthermore, the EU does not charge any non-member countries tariffs on unrefined gas or oil.

The one conceivable cause of national energy shortages would be failure to comply with international nuclear safeguards regulations. So far, all nuclear safety inspections and compliance with international law have been undertaken as part of the European Atomic Energy Community (Euratom). The UK has signed safeguards agreements with the International Atomic Energy Authority (IAEA), however it will have to meet tight and challenging deadlines to comply with them. In May 2018, a House of Lords Sub-Committee raised serious concerns about the UK’s readiness.\(^5\) Non-compliance would prevent any nuclear materials from entering or leaving the UK, which means that nuclear plants would run out of fuel until such time as the UK does comply. Around a quarter of UK electricity is generated by nuclear power.\(^6\)

However, even if there may not be any national energy shortages, higher energy prices, together with wider economic disruption, will likely push UK energy poverty rates to record levels. Thus, while businesses and well-off households might not see their lights or heating go off, many more people will no longer be able to afford to keep either of them on.

Ireland:

Eir-Grid, the Irish electricity grid provider, has stated that interconnectors with Northern Ireland alone have cut electricity prices by 8-11%.\(^7\) The planned closer

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\(^a\) This refers to heat and electricity, not transport fuels. The UK is a net importer of refined oil products, i.e. transport fuels and a much of those come from or via the EU or European Free Trade Area. The EU does impose tariffs on the export of refined oil products to third party states.
integration of the energy markets in the Republic of Ireland and Northern Ireland (put into serious doubt by Brexit) had been expected to lower energy prices further. More cumbersome and costly electricity trading with the UK can thus be expected to push up energy prices and thus increasing energy poverty in Ireland, too.

2. Why is leaving the European Internal Energy Market bad for the climate?

Beginning in the 1990s, the EU has been moving towards closer integration of energy policy and regulation, new funding facilities for implementing EU energy policy aims, and, especially since 2013, increased electricity connections (interconnectors) between member states.8

EU energy policy can hardly be described as sustainable and climate friendly: NGOs have long criticised commitments on, for example, energy and transport fuel efficiency, renewable energy targets, and greenhouse gas reduction as being unambitious. EU climate policy has not led to a coal phaseout – although the EU Industrial Emissions Directive (which focuses on emissions of air pollutants) has forced the closure of many coal and oil power plants, including in the UK. EU regulations about subsidies (State Aid Regulations) put market competition above environmental, social and climate considerations. And EU renewable energy policy has allowed biofuels and wood-based bioenergy – neither of which is low-carbon or in any way sustainable – to far outpace wind, solar and tidal power.

However, at the same time, the closer integration of electricity grids across the EU is creating an infrastructure without which wind and solar power could never play a dominant role in energy production (barring a technical breakthrough in cheap electricity storage).

Good grid connections across large regions are essential if we want to depend primarily on wind and solar power in future. It is common for the same weather conditions to prevail in most of the UK. If the weather is cloudy and windless, (wind and solar) electricity would need to be imported, yet during high wind speeds, wind power might be exported.

At present, the UK has 3.5 gigawatt of interconnector capacity with the EU (France, Netherlands, Ireland), plus a 500-megawatt interconnector with Northern Ireland. 17 GW of new interconnector capacity have been awarded subsidy guarantees in the UK. Work on a new interconnector with Norway started before the Brexit referendum and is ongoing. However, an article published in Greenpeace magazine Unearthed reports: “Plans for new interconnectors – such as the two from France – have already been somewhat derailed by the prospect an IEM Brexit. [Energy analyst] Johnston said: “‘Brexit has created economic uncertainty, the more so as it drags on. New interconnectors have already been put on hold’.“9

b Tidal and wave power are promising forms of low-carbon renewable energy, too, however, the technologies are far less mature than those for wind and solar power.
Third-party countries can trade electricity without tariffs with the EU, as Russia and Morocco have been doing. However, outside the Integrated Energy Market, such trade becomes far less flexible and the administration involved pushes up costs. The Single Energy Market across the Republic of Ireland and Northern Ireland will be by far the most exposed to disruption and spiking costs.

The situation would become worse over time if UK and EU energy regulations and policies diverge. Adjusting electricity flows depending on weather conditions would no longer be possible. Moreover, loss of access to EU funds for building interconnectors would push up the cost of building new ones.

Finally, interconnectors have been outcompeting new gas capacity in recent UK auctions for subsidy guarantees. Outside the Internal Energy Market, this will no longer be the case. Plans for large new fossil gas power stations by Drax, RWE and others will be far more likely to go ahead instead.

Ireland:

Although Ireland remains in the Internal Energy Market by virtue of being an EU member, its interconnectors are exclusively with the UK, both Northern Ireland and Britain. Planning consent for a new North-South interconnector has been granted (currently subject to a challenge by landowners objecting to plans for pylons rather than underground cables). However, there are warnings that it could well be derailed by a no-deal Brexit.

Although Ireland is a net exporter of electricity, especially to Northern Ireland, however the ability to smoothly trade electricity is vital for the expansion of wind energy, which would otherwise become more expensive.

The EU has awarded funds for Ireland’s first interconnector with mainland Europe, however a final decision has not been made and the project would be completed in 2025 at the earliest. Furthermore, that new interconnector could end up replacing Ireland’s existing smooth electricity trading (with the UK) instead of scaling it up to support further wind power expansion, as the government had originally intended.

3. What will a no-deal Brexit mean for coal and fossil gas?

As shown above, leaving the European Internal Energy Market will entrench fossil fuel dependence because it will limit the contribution that wind and solar power can make to UK electricity in future. This is far from the only way in which a no-deal Brexit would boost coal and fossil gas burning:

Coal:

Since 2012, electricity generation from coal has declined by over 84%. In 2017, the UK’s coal power stations operated, on average, at less than a quarter of their capacity. Unfortunately, this means that coal generation could be easily increased four-fold if any power shortages due to a disruption of electricity trading with the EU were on the horizon. Coal imports would not be affected by any trade disruptions with the EU because they come from Russia, Colombia and the USA. In such a situation, a new increase in opencast coal mining in the UK...
would also be on the horizon. Already, one new mine is being developed and a planning appeal against refusal of a second is being considered.

The Government has announced a total phase-out of coal by 2025. However, that decision came with a caveat: the Secretary of State will "retain provisions to act in emergency situations, as a last resort, where there might be a shortfall in electricity generation, or risk of one, and that suspension would wholly or partially mitigate that risk". Failure to replace current coal-power capacity with other forms of electricity generation – especially from fossil gas – qualifies as a risk which would justify suspending the coal phase-out. Any disruption of electricity trading post-Brexit, particularly if offshore wind capacity can no longer be expanded as EU funding and cheap loans and potentially investments by European companies dry up, could result in coal being burned indefinitely. The same applies to the Emissions Performance Standard, which limits CO₂ emissions from new fossil fuel power stations.

Finally, EU limits to sulphur dioxide and oxides of nitrogen emissions have been a driving force behind the UK’s 84% coal phase-out so far. With a no-deal Brexit, the UK Government would be free to ditch those as well as any other regulations that still protect us from the worst types of dirty energy.

**Fossil gas:**

More than 10 gigawatts of new gas power capacity are currently proposed by four energy companies alone. However, companies have been struggling to attract investment and subsidies, partly because fossil gas cannot compete with interconnectors. This will no longer be the case outside the European Internal Energy Market.

As EU funds for offshore wind – which is highly capital intensive – dry up, fossil gas – including fracking – will benefit once again.

And “freed” from the EU’s environmental and public health regulations, the UK Government – even without Parliamentary approval – will be free to ditch any regulations that restrict the oil and gas industry, including fracking, in any way.

**Ireland:**

As shown above, a no-deal Brexit would make Ireland’s electricity trading more expensive and cumbersome. This will push up the cost of electricity overall and could make wind power less competitive against dirty forms of energy. Widely opposed plans for a large LNG deepwater terminal in the Shannon estuary, which would be supplied by fracked gas from the USA, were recently revived because of concerns over Brexit.

4. **Won’t a no-deal Brexit at least mean that the UK will no longer have to implement harmful EU biofuel and biomass policies?**

Biofuel targets and support for bioenergy arising from the EU Renewable Energy Directive 2009 have caused immense harm to communities, biodiversity and forests worldwide, and they have increased rather than decreased
greenhouse gas emissions. It is important to note that, while the EU has set a mandatory (mainly) biofuel target for road transport, member states have always been free to decide how they will meet their overall renewable energy target. It has been the choice of UK governments to make large subsidies available for biomass electricity, and that of the current Government to curb those for onshore wind and solar power. This will continue to be the case when the EU’s new Renewable Energy Directives comes into force after 2020.

However, after 2020, the only biofuel target set by the EU will be a 3.5% transport target for biofuels not made from dedicated crops (including palm oil). On the other hand, the Trump administration has expressed a strong interest in trade rules which benefit their soya industry (via exports for biofuels) and their wood pellet industry. It has attacked even the extremely weak EU biofuel and proposed biomass sustainability and greenhouse gas standards as barriers to trade.\textsuperscript{18} A post-Brexit Free Trade Agreement with the USA may well increase pressures for the UK to subsidise biodiesel and wood pellet imports in future. Moreover, removing EU-derived regulations about air emissions, nature protection, the waste hierarchy, etc. would make it far harder still to stop dirty bioenergy developments.

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2 What would a no deal Brexit mean for the Environment?, Greener UK, July 2018, greeneruk.org/resources/What_would_a_no_deal_Brexit_mean_for_the_environment.pdf

3 Ireland refers to the Republic of Ireland in this briefing.

4 Hard Brexit: the eye-catching contingency plans to stop NI power blackouts, 11\textsuperscript{th} July 2018, ft.com/content/dcd8bb09-d583-3407-9209-942ab7915513


7 ireland2050.ie/questions/do-we-really-need-the-interconnectors/


9 Brexit: What leaving the EU internal energy market would mean, Zach Boren, 14\textsuperscript{th} June 2018, Unearthed (Greenpeace blog), unearthed.greenpeace.org/2018/06/14/brexit-eu-internal-single-energy-market-interconnector/

10 The Impact of Brexit on the EU Energy System, Directorate-General for Internal Policies, Policy Department: Economic and Scientific Policy, European Parliament, November 2017,
Interconnectors beat new gas in record-breaking capacity auction, Utility Week, 9th February 2018, utilityweek.co.uk/interconnectors-elbow-new-gas-capacity-auction-clears-record-low/

Northern Ireland energy market is facing 'huge backward step' without EU deal, Belfast Telegraph, 9th March 2018, belfasttelegraph.co.uk/business/brexit/northern-ireland-energy-market-is-facing-huge-backward-step-without-eu-deal-36685215.html

EirGrid and RTE secure €4 million funding for next phase of Ireland France Electricity Interconnector, Eirgrid Group, accessed 3rd August 2018, www.eirgridgroup.com/newsroom/funding-secured/

According to gov.uk/government/statistics/electricity-chapter-5-digest-of-united-kingdom-energy-statistics-dukes, coal power station capacity was 13.34 GW. If that capacity had been operated at full load for 7,000 hours a year, it would have produced 93,398 GWh. However, only 22,530 GWh of electricity was generated from coal.


https://www.desmog.co.uk/2018/05/15/brexit-pushing-ireland-towards-us-fracked-gas-putting-climate-commitments-risk

Strictly speaking, the regulation provides for renewable energy for transport targets, which are being almost exclusively met with biofuels.

2018 National Trade Estimate Report on Foreign Trade Barriers, Ambassador Robert E. Lighthizer, Office of the United States Trade Representative