Written evidence submitted by Oil Change International

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Summary:

- Evidence indicates that meeting the Paris Agreement's goals will require a rapid shift away from fossil fuels and a managed decline of the industry;
- UKEF's continued support for long-lived fossil fuel infrastructure is incompatible with the degree of ambitious climate action required to meet the aims of the Paris Agreement;
- UKEF's support for fossil fuels is significant relative to its peers, and public finance has a particularly powerful role to play in steering investment toward activities and development pathways aligned with the Paris Agreement;
- A decisive move away from fossil fuel finance by UKEF could have considerable influence on its peers and the wider financial system.

Introduction:

1. This evidence is submitted on behalf of Oil Change International, a research and advocacy organisation that aims to facilitate and accelerate the transition of our energy systems from fossil fuels to clean energy. Oil Change International works with governments, investors, companies and civil society to help align energy decisions with climate limits. In this evidence we submit element from two areas of research:

2. (i) The implications of the Paris goals for fossil fuel extraction, which was published in *The Sky's Limit: Why the Paris Climate Goals Require a Managed Decline of Fossil Fuel Production,* by fifteen civil society organisations internationally. Together with other researchers, we are currently working on a paper for the peer reviewed literature, building on that analysis.

3. (ii) The role of public finance in the energy transition. We maintain a unique database tracking publicly financed energy transactions worldwide, and categorising them according to their climate implications.

Meeting the Paris Agreement's goals will require a rapid shift away from fossil fuels, and a managed decline of the industry

4. The Fifth Assessment Report of the Intergovernmental Panel on Climate Change put a lot of emphasis on the concept of *carbon budgets*, reflecting the fact that temperature outcomes are directly related to the cumulative volume of carbon dioxide emitted over time.[1] Carbon budgets are also a useful tool for policy making because they give a clear sense of what the limits are, and of the decisions that must be made to stay within them. Carbon budgets may also be neatly compared to fossil fuel reserves, which give a measure of committed future emissions from the world's stock of fossil fuels. Previous

[1] IPCC, *Climate Change 2013*, Working Group 1 report, sec.12.5.4, pp.1108ff, http://ipcc.ch/pdf/assessmentreport/ar5/wg1/WG1AR5_Chapter12_FINAL.pdf

researchers have shown that the majority of reserves must remain in the ground in order to limit warming to 2 degrees Celsius.[2]

5. Our research[3] focuses specifically on the subset of oil, gas and coal reserves that exists in fields and mines that are already in operation. In other words, this is what would be extracted if the fields and mines are operated for their full economic life, commonly two or three decades (but sometimes longer). This is important, because once capital has been invested and infrastructure built, emissions are *locked-in*.[4]

6. We take estimates of developed reserves from the energy industry, primarily Rystad Energy (an oil and gas consultancy) and the International Energy Agency. The results are shown in Figure 1 below, together with the most optimistic feasible estimates of future carbon dioxide emissions from non-energy sources, primarily land use change and cement manufacture.[5]Figure 1 compares the resulting carbon dioxide emissions with the updated carbon budgets published in the IPCC's recent special report on 1.5 degrees.[6]

7. We find that the oil, gas and coal to be extracted from already-developed fields and mines would take the world well past the 1.5 degrees specified in the Paris goals, and almost to 2 degrees of warming. Even if coal were phased out overnight, the oil and gas alone would take the world beyond 1.5 degrees.

8. If new fields and mines are developed, they will add to the left-hand column of the graph. Logically, this can do one of only two things: either they push the world beyond climate limits, or they require a greater amount of existing infrastructure to be closed early, at a cost of economic and social disruption: stranded capital assets and lost jobs. [7]

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[2] Malte Meinshausen et al, "Greenhouse-gas emission targets for limiting global warming to 2°C", *Nature*, Vol. 458, 30 April 2009

[3] Greg Muttitt, *The Sky's Limit: Why the Paris Climate Goals Require A Managed Decline of Fossil Fuel Production,* Oil Change International, September 2016 http://priceofoil.org/2016/09/22/the-skys-limit-report/

[4] Karen Seto et al, "Carbon Lock-In: Types, Causes, and Policy Implications," *Annual Review of Environment and Resources* vol 41 (2016); pp.425–52,

Gregory Unruh, "Understanding carbon lock-in," *Energy policy* 28 (12), 2000, pp.817-830

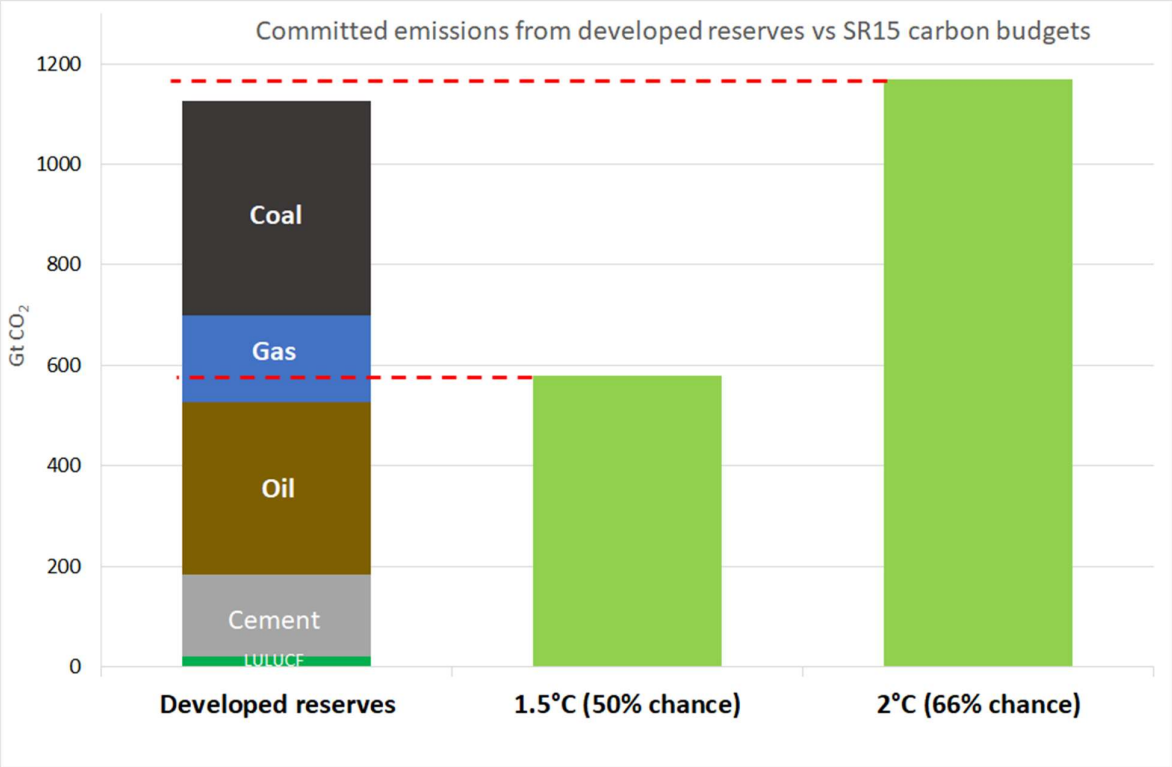
[5] We take 180 Gt as the most optimistic feasible amount of non-energy emissions over the remainder of the century. This comprises 20 Gt of land use change emissions, the median of IPCC scenarios leading to a 66% chance of 2°C (which requires significant reforestation); plus 160 Gt from cement calcination, which based on the IEA's technology roadmap assumes limited growth in cement consumption and maximum technological progress. For more details on these assumptions, see Greg Muttitt, *The Sky's Limit: Why the Paris Climate Goals Require A Managed Decline of Fossil Fuel Production,* Oil Change International, September 2016, p.49 http://priceofoil.org/2016/09/22/the-skys-limit-report/

[6] IPCC, *Special Report on Global Warming of 1.5 Degrees*, October 2015, Table 2.2, p.108

[7] A third logical possibility, promoted by some, is that technology may be invented to suck carbon back out of the atmosphere, such as through bioenergy combined with carbon capture and storage (BECCS). Such technologies are proposed in some theoretical models, but have never been tried in practice, and it is very uncertain whether they would work at scale and affordably. We therefore adopt the precautionary approach of focusing on what must happen if such technologies do not become available.

Kevin Anderson and Glen Peters, "The trouble with negative emissions," Science 354:6309, 14 October 2016

Figure 1: Developed Fossil Fuel Reserves, Compared to Carbon Budgets in the IPCC Special Report on 1.5C



Sources: Rystad Energy, International Energy Agency, World Energy Council, IPCC, Oil Change International analysis. (For detailed methodology, see: The Sky's Limit, Oil Change International, 2016.)

The Role of Public Finance in a Paris-Aligned Future

9. One of the Paris Agreement's three main objectives, in Article 2.1(c), is "[m]aking finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development."

10. Financial flows must shift rapidly away from fossil fuels and towards low-emission development to align with the Paris Agreement's warming limit of well below 2°C and striving to limit warming to 1.5°C. In December 2017, Prime Minister Theresa May asserted that "tackling climate change and mitigating its effects for the world's poorest are amongst the most critical challenges the world faces." She also said, "there is a clear moral imperative for developed economies like the UK to help those around the world who stand to lose most from the consequences of manmade climate change."[8]

11. In order for this moral imperative to be realized, the UK must stop using its international public finance to support fossil fuels, as these activities threaten to seriously undermine UK support for climate action by locking in long-lived, carbon intensive infrastructure around the world. Recent research assessing what public finance alignment with the Paris Agreement might necessitate

[8] Rowena Mason, "Theresa May puts tackling climate change back on Tory agenda," The Guardian, 11 December 2017. https://www.theguardian.com/politics/2017/dec/12/theresa-may-puts-tackling-climate-change-back-on-tory-agenda

indicates that ending support for most, if not all, fossil fuel activity should be on the agenda of public finance providers.[9]

12. In addition, renewable energy costs have declined dramatically in recent years, which should make it considerably easier for the UK to increase its support for clean energy technologies and services abroad through its public finance, including UKEF. Global energy investments in renewables are now on par with fossil fuel investments in mature economies, and in the power sector, investments in renewables accounted for over two-thirds of total electricity supply investment in 2017 overall, while renewable energy accounted for more than half of new electricity generation capacity additions in developing countries.[10]

How Export Credit Agencies, including UKEF, Currently Exacerbate Climate Change

13. Yet despite the urgent need for global climate action, the rapidly declining costs of renewable energy, and the need to shift financial flows toward Paris-aligned activities and away from oil, gas, and coal, UKEF continues to back billions of dollars in finance for fossil fuel expansion around the world each year. The large volumes of public finance that continue to flow to fossil fuel expansion undermine global climate action. To meet globally-agreed climate goals, it is crucial that public finance shifts away from fossil fuel production for a number of reasons, including:

14. **(i) Continued investment in fossil fuel development can lead to carbon & political lock-in**.[11] Financing long-lived fossil fuel infrastructure risks locking in a high-emissions future and entrenches the political interests most likely to resist climate regulations that could result in their assets being stranded or devalued. For example, new oil and gas export pipelines have an intended design life of more than 50 years and are therefore incompatible with the accepted scientific requirement that emissions are reduced by 45 percent in just 12 years and to net-zero in just 38 years in order to have a reasonable chance of staying below 1.5°C.[12] Projects creating long-lasting carbon lock-in are incompatible with the UK's commitment to carbon neutrality by mid-century.[13]

15. **(ii) Public money is relatively scarce.** Each pound must be used as strategically as possible, and further public finance for fossil fuel expansion risks undermining the Paris Agreement.

16. **(iii) Public finance institutions are thought leaders.** They play a central role in supporting and de-risking large fossil fuel infrastructure projects via concessional finance (lending with more favorable

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[9] Germanwatch and New Climate Institute, 2018. "Aligning Investments with the Paris Agreement Temperature Goal," https://germanwatch.org/en/15897

[10] Bloomberg News, "Clean Power Sees First Win Over Fossil Fuels in Emerging Markets," 26 November 2018. https://www.bloomberg.com/news/articles/2018-11-27/clean-power-sees-first-win-over-fossil-fuels-in-emerging-markets

[11] Michael Lazarus, Peter Erickson, and Kevin Tempest. Carbon Lock-in From Fossil Fuel Supply Infrastructure, Stockholm Environment Institute, September 2015, https://www.sei.org/publications/carbon-lock-in-fromfossil-fuel-supply-infrastructure/

See also: Karen Seto et al, "Carbon Lock-In: Types, Causes, and Policy Implications," *Annual Review of Environment and Resources* vol 41 (2016); pp.425–52,

Gregory Unruh, "Understanding carbon lock-in," *Energy policy* 28 (12), 2000, pp.817-830

[12] Leila Mead, "IPCC Special Report: Limiting Global Warming to 1.5°C Will Require "Unprecedented" Transitions," International Institute for Sustainable Development, October 9 2018, http://sdg.iisd.org/news/ ipcc-special-report-limiting-global-warming-to-1-5c-will-requireunprecedented-transitions/

[13] Claire Stam and Frédéric Simon, "19 Countries Team Up to Go Carbon Neutral," ClimateHome News, September 28, 2018, http://www.climatechangenews.com/2018/09/28/19-countries-team-go-carbonneutral/

terms than on the competitive market).[14] They also send key signals to the broader financial community, making shifting public finance a crucial early step on the road to more broadly aligning financial flows with the Paris Agreement's aims.

17. According to the most recent data from Oil Change International's Shift the Subsidies database, which assesses energy projects supported by public finance at the individual transaction level, across nearly 200 transactions, UK Export Finance (UKEF) has approved over USD 11.5 billion / GBP 9 billion in loans or guarantees to support oil and gas activities from FY13 through FY16, with a relatively low proportion of finance approved for renewable energy (note that these figures differ from some others presented in part due to a lack of transparency, and in part because these figures focus on transactions approved, not necessarily finance disbursed).

18. While, as noted above, this data is not comprehensive due to limited transparency on UKEF's transactions, it nevertheless places UKEF among the biggest providers of fossil fuel finance among all export credit agencies globally.

19. As an example of the kinds of oil and gas activities supported by UKEF in recent years, it is useful to consider Petrobras, Brazil's scandal-plagued state-owned oil company. Petrobras has been a magnet for controversy. In 2018, Petrobras agreed to pay nearly USD 3 billion to settle a shareholder lawsuit in the United States related to their corrupt practices;[15] Petrobras' corruption was so widespread that related scandals helped reorient Brazil's political landscape. Beyond the rampant corruption within Petrobras, exploitation of Brazil's vast pre-salt oil reserves, which are targeted for exploration and development by Petrobras, could be disastrous from a climate perspective, given the energy-intensity of oil production in these fields.[16] Offshore oil production has already reportedly devastated communities, making waters too dirty to swim in, in some areas. Land defenders and fisherfolk opposing oil and gas development have been killed.[17] Petrobras is also expanding into areas near uncontacted tribes, and contact could threaten to destroy these communities (especially through introduction of common diseases for which they have no immunity).[18] This is just one illustration of the kinds of oil and gas interests UKEF has recently supported.

20. UKEF is also reportedly considering substantial support for oil and gas activity in Argentina, where one of the world's most controversial fossil fuel expansion projects threatens to undermine global climate action: the development of a shale megaproject in Argentina's Vaca Muerta region. In this region, the rights of indigenous Mapuche communities have reportedly been routinely violated, and development continues despite the fact that fifty local municipalities and one province have passed local regulation against fracking.[19] One major oil and gas company was also allegedly involved in a USD 300 million bribery scheme in Argentina, and has also faced allegations of large-scale

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[14] Jessica Brown and Michael Jacobs, Leveraging private investment: the role of public sector climate finance, Overseas Development Institute, April 2011, https://www.odi.org/publications/5701-leveraging-privateinvestment-role-public-sector-climate-finance/

[15] Chad Bray and Stanley Reed, "Petrobras of Brazil to Pay $2.95 Billion Over Corruption Scandal," New York Times, January 3, 2018, https://www.nytimes.com/2018/01/03/business/dealbook/brazil-petrobrascorruption-scandal.html/ort_web.pdf

[16] Lindsay Poulton and Jonathan Watts, "Brazil's Troubled Waters," The Guardian, June 2015, https://www.theguardian.com/environment/nginteractive/2015/jun/25/brazils-gamble-on-deep-water-oil-guanabarabay/

[17] Poulton and Watts, 2015.

[18] Survival International, "The dark side of Brazil: Oil giant Petrobras moves into 'deepest Amazon'," March 27, 2014, https://www.survivalinternational.org/news/10088/

[19] Anna Markova, BP's Fracking Secrets: Pan-American Energy and Argentina's Shale Mega-project, November 2017, Platform London and Observatorio Petrolero Sur, https://platformlondon-org.exactdn.com/ wp-content/uploads/2017/12/bps-fracking-secrets-ENG-2017-12-06.pdf/

groundwater contamination in its areas of operation.[20] Recent analysis suggests that the climate implications of developing the Vaca Muerta shale could be disastrous for the climate.[21]

Export Credits for Fossil Fuels Should be Phased Out, and the UK Can Help Lead the Way

21. The UK can play an extremely important role on the issue of export credits for oil and gas, just as they did on the issue of coal finance, helping to leverage UK leadership on ending public finance for coal into a multilateral agreement among export credit agencies that are party to the OECD Arrangement, and later on, into the Powering Past Coal Alliance.

22. Many other providers of finance, but public and commercial, have signaled a move away from financing fossil fuel activity. In addition to a multitude of restrictions on coal finance from public and private institutions, some institutions are moving to end financing for oil and gas. In December, 2017, the World Bank Group announced a commitment to end its direct financing for upstream oil and gas activity by the end of 2019. Also as of 2017, Sweden had ended all development finance via Swedfund for fossil fuel activity, including oil and gas. Brazil's BNDES has also placed restrictions on certain types of activity involving oil and gas. Among commercial financial players, BNP Paribas, ING, Societe Generale, Natixis, HSBC, ABN Amro, Standard Chartered, RBS, and Credit Agricole, among others, have committed to at least partial restrictions on their financing of certain oil and gas-related activities, though to move further, these institutions would benefit from public sector leadership.

23. If the UK Government and UKEF want to demonstrate serious commitment to climate action, they must take a cue from world-leading public finance institutions such as the World Bank Group and signal an end to UKEF's substantial public finance for fossil fuels. UKEF should establish a policy that clearly commits to a phase out of financing and support for fossil fuels.

[20] Markova, 2017.

[21] See http://priceofoil.org/content/uploads/2018/06/debunked_g20_eng_07_web.pdf and http://priceofoil.org/content/uploads/2018/06/debunked_vaca_muerta_eng_04_fin_web.pdf