During my appearance before the Committee on 19 March, I indicated that I would write to the Committee in respect of the arrangements for UKEF’s support to energy projects in Iraq, use of DFID’s carbon lock-in toolkit, risk assessments for projects in Iraq and Oman, and details of the premium and claims paid in relation to fossil fuel-related exports.

**Iraq – Samawa and Dhi Qar Power Plants**

UKEF is providing support to contracts between GE and Iraq’s Ministry of Electricity to build two new power stations in Samawa and Dhi Qar, in Southern Iraq. The Iraq Ministry of Electricity (MoE) has provided a written commitment to ensuring that Natural Gas is available as the primary fuel for both the Samawa and Dhi Qar power plants by March 2019. In the event Natural Gas is not available in sufficient quantities at any time to operate the power plants, the MoE has committed to delivering liquid fuel (Light Distillate Oil – LDO) with a sulphur content of <0.5% as a back up fuel. Use of LDO complies with international standards (i.e. IFC Performance Standards and World Bank Group EHS Guidelines) related to stack emissions and ambient air quality in nearby communities. In the event LDO with sulphur content of <0.5% is not available, the MoE is committed to limiting operations using other liquid fuels to no more than 500 hours per annum at full capacity or to reduce the capacity of the plants accordingly (i.e. such that international standards related to ambient air quality are maintained).

If this commitment is not maintained, it would be considered a breach of environmental and social (E&S) obligations under the Loan Agreements. The Loan Agreement requires the Government of Iraq to promptly notify UKEF of an E&S Obligations Breach. The Loan Agreement further requires: i) self-monitoring reports to be submitted to Lenders on environmental and social performance regularly during construction and operations; and ii) the Government of Iraq to retain an independent environmental and social consultant (IESC), with duty of care to Lenders, to monitor the construction and operation of power plants.

Upon UKEF becoming aware that a breach of E&S obligations has occurred, we, in consultation with relevant parties, would determine whether we consider the breach to be capable of remedy. If so, we would require the plant operators to remedy the breach within a time frame acceptable to us, which may involve the production of a Corrective Action Plan. If the breach continues and/or is deemed not capable of remedy, we would be able to stop future draw downs on the Loan, exit the Loan via Mandatory Prepayment, or declare an Event of Default.
DFID Carbon Lock-in Toolkit

DFID’s carbon lock-in toolkit is aimed at decision makers in national or local governments in low and middle-income countries that are considering domestic policy options that may result in carbon intensive pathways and is not intended for use by the financial industry in their assessment and consideration of specific projects. UKEF’s policy requires environmental, social and human rights (ESHR) assessments to be benchmarked against IFC Performance Standards and World Bank Environment, Health and Safety (EHS) guidelines. The DFID toolkit is not included in the IFC Performance Standards or the EHS guidelines and UKEF does not apply the toolkit to assess the ESHR risks of projects in implementing its ESHR policy. UKEF is asked to consider support for specific projects once policy decisions have already been made by the government in which that project is located.

UKEF is subject to OECD Guidelines on Sustainable Lending in respect of export credits to low income countries and can only support projects which are judged to contribute to their economic and social development, without adversely affecting their underlying debt sustainability position. Under the terms of UKEF’s Treasury Consent, UKEF is prohibited from providing support for projects which are subject sustainable lending guidelines without Treasury’s approval. Treasury take a decision based on DFID’s recommendation on sustainable lending. UKEF works closely with DFID to provide them with the information necessary to support them in carrying out their assessment of the eligibility of projects that UKEF is asked to support in sustainable lending countries.

Risk Assessments

Samawa and Dhi Qar Power Plants, Iraq

The Environmental and Social Impact Assessments (ESIAs) for both the Samawa and DhiQar power plants include an Alternatives Analysis section, which includes assessment of generation technology alternatives and fuel alternatives. The ESIAs also include a section on greenhouse gas (GHG) emissions. GHG emissions were calculated using IPCC Guidelines and methodologies and for various scenarios (including use of natural gas only, use of LDO or crude oil as backups). The GHG emissions for each plant were calculated to be 3.44 million tonnes CO₂ equivalent per annum (MtCO₂/annum) for Natural Gas use, with an added 0.241 MtCO₂/annum in the worst-case scenario utilising crude oil at a maximum of 500 hours per annum.

The full ESIA documents for Dhi Qar and Samawa respectively were publicly posted over 30 days prior to UKEF committing to support the projects.¹

Environmental management measures such as continuous emissions monitoring and preparation of annual emissions inventories are proposed in the ESIA and have been transferred into project-specific environmental management plans which are required to be implemented under UKEF’s loan agreements.

Regarding resource use and efficiency and resilience, the main impact from the plants will be on water (and water availability is a key need for the plants). Water is ultimately sourced from the Euphrates River for both plants. Both plants will implement Air-Cooled Condensers to minimise operational water demand. A Hydrological Study Report and Water Balance prepared for each plant concludes that the project water demand and discharge is negligible as compared to the average flow rate of the Euphrates. Regarding flooding, the ESIAs did not identify this as a significant risk for either plant.

Atmospheric dispersion modelling was conducted to assess impact of emissions from each plant when using a natural gas, light distillate oil and crude oil. The technology initially proposed at the early stages of ESIA development would have exceeded nitrogen oxide (NOx) and sulphur oxide (SOx)

emissions limits set in the World Bank Group EHS Guidelines for Thermal Power Plants (2007), which was deemed not acceptable by UKEF. Therefore, the Iraqi MoE committed to procuring and implementing low-NOx technology for each plant to ensure that emissions limits would be met. The atmospheric dispersion models predicted that, with implementation of low-NOx technology, emissions and ambient air quality limits will indeed be met when natural gas is used, but there is a predicted exceedance of SOx limits at nearby communities if crude oil (available as a secondary back-up) is used. Therefore, as a condition of UKEF’s support, a commitment was made by the MoE to limit the use of high-sulphur content fuel to ensure that relevant emissions and ambient air quality limits are met.

Duqm Refinery, Oman

UKEF is supporting contracts placed with UK suppliers to support the construction of the Duqm Refinery Project in Oman. The project has been developed in alignment with the IFC Performance Standards and the associated World Bank Group Guidance Notes (including a sector specific Guidance Note for Petroleum Refining, issued in 2016). The project design was required to meet Good International Industry Practice in relation to Refinery design, which includes meeting internationally accepted air emission standards and using internationally accepted design technologies.

Additionally, as part of aligning with the IFC Performance Standards and Guidance Notes, consideration of the project resource use and efficiency was undertaken (e.g. project air cooling processes will be used to avoid additional water use in an arid, water constrained part of the world) and the project’s impacts on local and regional air quality were also investigated, assessed and mitigated.

As is standard where UKEF supports location-specific projects, environmental and social obligations were included in the Loan Agreement, of which an unremedied breach would allow UKEF to stop future draw downs on the loan, exit the loan via mandatory prepayment, or declare an event of default.

The main physical risks identified in the ESIA for this project are impacts to topography and landscape, air quality, noise, soil and groundwater. The ESIA does not identify fluvial or coastal flooding as a potentially significant impact.

The ESIA contains a section on “Climate Affairs”. This details information on the project’s GHG sources and concludes that the CO$_2$ equivalent emissions from the project in operation would comprise approximately 1% of the total estimated quality of GHG emitted from Oman in 2008. The estimated GHG emissions for the project are 1.26 MtCO$_2$/annum.

Following on from this, the ESIA contains a “Climate Risk Affairs Matrix” – see below:

<table>
<thead>
<tr>
<th>Type of Risks</th>
<th>Frequency / degree of Vulnerability</th>
<th>Climate Impacts due to identified Vulnerability</th>
<th>Risk Magnitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural disasters such as cyclone, earthquake, high waves, landslides and dust storms</td>
<td>2$^{25}$</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Sea level rise</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Temperature increase</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Heavy rains</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Flash flooding</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

$^{25}$ 1, 2, 3 indicate low, medium and high frequencies respectively of vulnerability
$^{26}$ 1, 2, 3 indicate low, medium and high impacts respectively due to identified vulnerability
$^{27}$ The frequency is taken as 2 since dust storms (Shamal) are quite frequent in Oman, earthquake, high waves, and landslides are rated as 1
Storms and flooding events affecting water abstraction and discharge are of particular concern within the ESIA as noted within the table above. These risks are being taken into account in the project’s design.

The full ESIA documents for the Duqm project were publicly posted over 30 days prior to UKEF committing to support the refinery project.²

**Premium, claims and recoveries from fossil fuel related exports**

UKEF’s support is provided on commercial terms and it charges a premium to cover risk and operating costs. UKEF’s support is in line with the OECD Arrangement of Officially Supported Export Credits. UKEF is required by Treasury to operate at no net cost to the public purse over time.

UKEF has forecast £213,351,607 of premium in respect of its support for fossil-fuel related exports between 2013/14 and 2017/18. During this same period, UKEF paid gross claims totalling £15,684,151. To note, these claims also include business issued prior to 2013/14. Further, UKEF typically seeks to recover claims we have paid, so any final loss calculation may not become clear for many years, until recovery action is concluded. So far, claim recoveries made during this period totalled £10,978,780. Accordingly, the net claims paid in relation to fossil-fuel related exports is £4,705,371.

Lastly, I would like to correct a figure that I provided during my appearance to illustrate the point that UKEF supports an extremely small proportion of total global investment in oil and gas. Where I stated that UKEF provides less than 0.02% of the investment in any one year in global oil and gas, this should have been 0.2%. According to the International Energy Agency, total global investment in oil and (upstream and downstream) in 2016 was USD 649 billion.

I hope that this letter provides the Committee with useful additional information for its inquiry.

Louis Taylor
Chief Executive