

## Reference paper for IMWG meeting on June 27, 2018

| Agenda Item  | Key Messages/Summary  | Comments   |
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| <b>1. Fossil Fuel Subsidies (position review):</b> <ul style="list-style-type: none"> <li>- Discuss and agree position</li> <li>- Review audience for the position</li> </ul>            | <ul style="list-style-type: none"> <li>• The term ‘fossil fuel subsidies’ is often used to cover a variety of different policies and issues: it is important to define exactly what is meant by fossil fuel subsidies.</li> <li>• Governments are responsible for managing subsidies – any decision to reform or remove subsidies is for governments alone to make.</li> <li>• In general, BP supports the gradual phasing out of direct subsidies to consumers. Direct fossil fuel subsidies to consumers distort market-driven price signals, leading to inefficiencies in energy use and allocation of capital.</li> <li>• The implications for low-income groups should be considered as part of any reform process.</li> <li>• Incentives to discover and develop a country’s oil and gas resources are a legitimate form of industrial policy and shouldn’t be regarded as unfair or distortionary, provided they conform to domestic and international competition and trade rules.</li> <li>• The suggestion that the failure to tax fossil fuels to take account of their GHG emissions represents an implicit subsidy is best addressed by a well-designed carbon pricing framework.</li> </ul> | <ul style="list-style-type: none"> <li>• May be helpful to clearly differentiate subsidies (aimed at end-users to provide social welfare) vs. incentives (stimulate net value creation). I wouldn’t classify them as categories of subsidy. Incentives aren’t subsidies.</li> </ul>  |
| <b>2. GHG Emission Performance Standards (Info Note):</b> <ul style="list-style-type: none"> <li>- Review and discuss the note on EPS</li> <li>- Decide what position to take</li> </ul> | <ul style="list-style-type: none"> <li>• Proposed in the EU -- GHG EPS for electricity generation.</li> <li>• Should BP in principle, support sector-specific alternatives to an economy-wide carbon price, and in practice, support a GHG EPS for power in the EU?</li> </ul> <p>1. Sector-specific GHG EPS policy tool, effectively banning coal intensive fossil-fuel technology. Aimed at banning unabated coal from power. Opportunity for gas but risk for future unabated gas or to refining and fuels.</p> <p>2. BP support would mean we deviate from our position of economy-wide carbon price as being the best way to do it.</p> <p>Can work with flexibility:</p> <ul style="list-style-type: none"> <li>- <u>timing</u> (applies to existing installations from date of implementation? Or in the future? More flexible approach: apply to new facilities (not yet built, not yet permitted, or not yet planned),</li> <li>- <u>emissions rate</u> (fixed limit – per unit of electricity generated; or in annual GHG emissions budget – higher emitting installations can operated for reduced # of hours. Can work as a back up fuel),</li> </ul>   | <ul style="list-style-type: none"> <li>• If there is no viable substitute, i.e. if unabated natural gas remains the lowest GHG of all options available at the scale needed, how could regulators further restrict its use without disrupting power supply? This seems to be a key assumption</li> <li>• in the proposal to the EU, what are the assumptions on pass-through to consumers if grid operators have higher switching costs and how does that feature in the policy debate?</li> </ul> |

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|  | <ul style="list-style-type: none"> <li>- <u>Regulated entity &amp; scope of coverage</u> – each individual unit vs. portfolio – trade it between installations and owners</li> <li>• <u>Pros</u>: create space for unabated gas – though can't guarantee it if switchers leap to renewables</li> <li>• <u>Cons</u>: unabated or less efficient gas comes after coal. With CCUS could qualify - new build to be CCUS ready;</li> <li>• <u>Biggest risk to BP</u>: If successful in power, nothing would stop the same approach to any other sector of the economy. In the US it could move to refining, then in the EU. Even further it could go to petchem, vehicles, or fuels themselves. Fuels – could be strengthened to require vehicles to be zero/near—zero GHG emissions.</li> <li>• <u>Recommendation</u>: Don't support GHG EPS for power in the EU or anywhere else. Could consider support for specific form of indirect GHG EPS for power for unabated coal-fired power. Business impact analysis needed to understand impact.</li> </ul>  |   |
| <p><b>3. Role of gas (position review):</b></p> <ul style="list-style-type: none"> <li>- Note current context change since position was last agreed</li> <li>- Discuss and agree position</li> <li>- Review audience for the position</li> </ul> | <ul style="list-style-type: none"> <li>• Gas provides an abundant, flexible and reliable source of energy for power, industrial processes, heat and mobility, and is an essential feedstock for products such as petrochemicals.</li> <li>• Natural gas demand is likely to grow over the next few decades. Our Energy Outlook Evolving Transition scenario projects this growth at 1.6% p.a., with LNG trade growing at over 3% p.a.</li> <li>• Natural gas demand as a feedstock to industry is material and growing, and at less risk of substitution.</li> <li>• Gas can complement renewable power as a cost-effective back-up to intermittency issues and base/peak loading.</li> <li>• BP sees gas, coupled with Carbon Capture Use and Storage (CCUS) and progressive decarbonisation, as a destination fuel in a low carbon economy.</li> <li>• BP has a major and growing natural gas business. BP projects that gas will account for up to 60% of its total production by the mid-2020s.</li> <li>• BP believes that governments should play a key role in the development of infrastructure, access and markets for gas, whilst recognising that there will be regional differences in policy frameworks.</li> </ul> | <ul style="list-style-type: none"> <li>• We are saying BP's portfolio will have 60% gas by 2020. Is it consistent with our view of what the energy mix will be by 2020? Are we over/under invested vs. our view – or consistent?</li> <li>• A question for us (BPA/C&amp;EA in the US): Do we understand where are the infrastructure bottlenecks in the US – and what can we do to advocate for policies to promote access to existing or need for building new infrastructure?</li> </ul> |

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| <p><b>4. Methane emissions from the oil &amp; gas sector (position review)</b></p> <ul style="list-style-type: none"> <li>- Note current context change since position was last agreed</li> <li>- Discuss and agree position</li> <li>- Review audience for the position</li> </ul> | <ul style="list-style-type: none"> <li>• BP recognizes that methane is a powerful but short-lived greenhouse gas that plays an important role in global warming.</li> <li>• While agriculture is the main source of man-made methane emissions, the oil and gas sector is also a major source – although data remains poor.</li> <li>• For natural gas to play a full role in advancing the energy transition, methane emissions need to be kept to a minimum.</li> <li>• BP aims to take a leading role in addressing the methane challenge; we have set a methane intensity target and are in action.</li> <li>• We are partnering with our peers in OGCI, governmental and non-governmental organizations (NGOs) and academic institutions to advance understanding of the science, improve data and identify and deploy leak detection and reduction technology.</li> </ul>   | <ul style="list-style-type: none"> <li>• When we say BP will lead the mission of methane reduction, what does “leadership” mean? This is a global issue impacting the whole industry, E-NGO’s, and governments. How do we lead in this space?</li> <li>• New study showing 2015 estimates are 60% higher than previously estimated US EPA inventory. Does this change our views on how we understand and address the issue?</li> </ul> |
| <p><b>5. Role of oil (Info Note):</b></p> <ul style="list-style-type: none"> <li>- Review the note on role of oil</li> <li>- Decide if further info or a position is needed</li> </ul>  | <ul style="list-style-type: none"> <li>• Policy developments seeking to restrict support for extraction and demand for oil:<br/>On demand suppression side: <ul style="list-style-type: none"> <li>- France and UK announced plans to halt ICE vehicles by 2040</li> <li>- Similar measures considered by Norway and Germany</li> <li>- India declared ambition to have all cars sold to be electric by 2030.</li> <li>- China announced it is considering banning gasoline/diesel engines</li> </ul> </li> <li>On extraction restriction side: <ul style="list-style-type: none"> <li>- France first country to ban new licenses with immediate effect and all extraction by 2040 (immaterial, domestic production is only 1% of their consumption)</li> <li>- Belize moratorium for all offshore waters</li> <li>- New Zealand –no further offshore permits</li> <li>- World Bank – no further financing for O&amp;G projects after 2019 (except for projects in poorest countries in exceptional circumstances)</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• None</li> </ul>   |