Road from Paris (RfP) – 2 December 2016

Today's agenda will focus on the following:

- OGCI:
    - Nov 4 event review
    - CEOSC & Davos
    - Excom
    - CI
    - HMG partnership approaches
- Marrakech update
- IEA's World Energy Outlook (WEO) 2016
- Other issues
    - IPIECA
    - CCAC
    - Executive speeches
    - US climate-related issues
    - German climate-related issues
    - Task Force on climate-related financial risk disclosure
    - CDP
    - IMWG
- AOB

The date of the next meeting has not yet been scheduled.

Paul Jefferiss

29th November 2016

OGCI – for information and decision

OGCI

- **November 4**
  - The CI and report launch were widely seen as a great success both as an event and as building OGCI reputation and credibility.
  - The panel session generated robust debate with broad alignment on key issues but differing perspectives:
    - CCUS is potentially important for society and for the oil and gas sector – but faces formidable political challenges that justify collaborative OGCI action.
    - Natural gas has a central role to play – but improved methane management is critical and requires coordinated effort.
    - Renewables will make a major contribution but this is a competitive space where companies are pursuing individual strategies.
    - OGCI funds can be amplified by leveraging partnerships and deploying on own assets.
  - Press coverage was extensive including newswires, international and national business press and specialist press, including in particular the FT, Le Monde, La Repubblica and Xinhua News. TV interviews with CEOs were broadcast by the BBC, CNBC and CNN. Most of the reporting was balanced and positive (e.g. FT, Bloomberg, Reuters and BBC, even Carbon Tracker). However, NGO criticism of the scale of $1bn investment led to some more negative coverage (e.g. The Guardian, Daily Telegraph).
  - Partnership offers in principle were made on the day (e.g. from Nick Hurd, Erik Solheim, Lise Kingo and Fatih Birol). In

confidence there has been specific follow up from HMG (see below).

- **CEOSC & Davos**
    - CEOs meet in Davos on [19/20th] January
    - The agenda will focus on:
        - Review and approval of 2017 plan and budget
        - CI progress
        - 2017 secretariat arrangements
        - Excom governance
- **Excom**
    - An Excom meeting will be held in the Hague Dec. 15-16. Key agenda items will include:
        - 2017 planning and budgeting
        - Preparation of agenda and pre-read for Davos
    - *Low emissions roadmap (LER)*.
        - Phase 1 of this work is now complete, looking out to 2040.
        - Phase 2 in 2017 will focus on the post-2040 period and the implications of and options for net zero.
        - The work stream may be renamed to *Low Emissions Priorities* and become more of a "think-tank " workstream within OGCI to identify emerging priorities.
    - *CCUS*
        - Good progress overall in each of the three sub-workstreams, and strong liaison with LER workstream
        - The urgency and importance of the *CCUS commercialisation* workstream have become clearer:
            - CCUS is critically important for the oil and gas sector

and for society to meet ambitious climate goals.

- Policymakers have not chosen to support CCUS at levels equivalent to those at which renewables and EVs have been supported.
- As renewable costs fall, this could affect the prospects for large scale commercial deployment of CCUS (See IEA WEO 2016 below).

- To address this risk the workstream has so far focused on identifying the best form of policy support to commercialise (roll out) CCUS. Provisionally, the preferred form of policy is an obligation on fuel suppliers. The workstream is now proposing additional elements to be developed in 2017 and implemented over 2-3 years:

    - A “value proposition” clearly articulating why CCUS is important.
    - A preferred policy mechanism for the demonstration and “scale-up” phase, prior to commercialisation. Provisionally, the preferred policy is public procurement.
    - An advocacy campaign potentially to involve CEOs, initially to create alignment and support with other affected sectors (coal, steel, cement, etc.), subsequently with governments.

  Are we supportive of an expanded CCUS programme, potentially culminating in a CEO-led advocacy campaign?

- In November BP made a presentation at Tsinghua University on OGCI CCUS to an audience including CNPC and NDRC. The workstream is planning a meeting in China next year to engage with CNPC and identify CCUS opportunities in China.
- In November OGCI CCUS was a Silver Sponsor and hosted

a stand at the IEA GHGT 13 Conference in Lausanne, the world's largest CCUS conference held once every 2 years.

- *The role of gas*

Redacted - Privilege

- The LCA project is proceeding on the basis that BP will sign a contract with Imperial College, including an early termination clause. As soon as OGCI Climate Investments is established BP will transfer the contract to them. Any cost incurred by BP (estimated at £70k) will be deducted from BP's 2017 cash calls payments for general OGCI support. ExCom has agreed this.
- The study to recommend investment in and use of methane detection technologies is nearing completion.
- Separately, IEA have approached OGCI with a request for \$400k and company technical support for their special publication on methane in May/June 2017, following a request from Fatih Birol to the CEOs. The work programme of the WEO each year is dependent on securing voluntary contribution that supplement the budget provided directly by member countries. The \$400k would cover:
  - Staff time for the data gathering effort, analysis, modelling and drafting.
  - Workshops and consultation: costs of holding one main workshop (in Paris) and other consultations as necessary with industry / academia.
  - Production and dissemination. Costs of printing, communication and a roadshow to present the findings.

This is an important sudy, supported in principle by the OGCI CEOs, and we should ensure Excom progress it.

- **OGCI Climate Investments**
  - CEO: The CI Board Nominations Committee has completed the CEO interview process, resulting in a preferred candidate and two quality back-up candidates. Discussions are underway with the preferred candidate; Board approval expected on 15 Dec.
  - Office Space: Interim office space has been agreed at Imperial College's Sustainable Gas Institute. Serviced offices at Imperial College's White City campus Translation & Innovation Hub are being recommended to the CI Board, for occupancy mid to late 2Q17.
  - Members' Agreement: near final. Outstanding issues to be discussed on 5 Dec Board call; approval at 15 Dec Board meeting. Signatures by appropriate company reps to follow.
  - Budget: The operating budget for 2017 is expected to be approx. $5.25m. We anticipate a cash call of $750k/company in early 2017 to cover operating costs. In addition, there will be some WEF-related 2017 costs, which will result in an early 2017 WEF cash call for approx. $60k/company. Subsequent 2017 cash calls will be for specific investments.
  - Interim Operating Model
    - The new CEO won't be formally on board until probably late 1Q / early 2Q. Dominic Emery will be formally

      Redacted - Privilege
    - BP is providing interim part time HR support.
    - We will need an interim Finance Director and Legal Counsel ASAP, preferably from a member company but potentially contract. These positions would continue until permanent replacements are hired by the

new CEO.

- Practical matters such as bank accounts, lease, insurance, secondment agreements, accounting framework, etc. will follow as soon as practical.

- Upcoming CI Board meetings: 5 December call; 15 December meeting in Den Hague (includes session with Ben van Beurden, Shell CEO).
- Key challenge for 2017 will be to get CI up and running, focused on projects and investments. Earliest investments expected late 1Q, probably 2Q 2017.
- Over 100 enquiries, chiefly regarding technologies in the OGCI CI focus areas, have been received since the November 4th event

HMG partnership approaches on low carbon innovation

- Several approaches have been made by HMG departments to OGCI and BP is encouraging the joint FCO/BEIS International Energy Unit to try to co-ordinate HMG's interest. However, it is unclear how much detailed interdepartmental sharing is occurring and we need to tread cautiously with respect to both HMG and OGCI. There have been three main approaches:

1. **Mission Innovation & the Breakthrough Energy Coalition.** BP was approached directly by the International Energy Unit on behalf of Sir David King, the Government's Special Representative on Climate Change at the FCO. At a preliminary meeting this week he confidentially but formally indicated that HMG is proactively seeking collaboration between Mission Innovation, the Breakthrough Energy Coalition and BP (or OGCI CI) to help commercialise low emissions technologies.

   Mission Innovation is a multi-government initiative to accelerate low carbon innovation. It was partly Sir David's own brain child, formally launched ahead of Paris last year. It now has support from 23 national governments and the EU commission who, according to Sir David, have pledged a combined total of $16 billion a year. It is about to set up a small (4-person) independent Secretariat in Paris, co-located with the IEA. In Marrakech it announced 7 innovation priorities, although Sir David's personal innovation priority is storage, both at a utility level to accommodate deep renewables penetration in the grid, and in transport to support EVs:

- Smart grids
- Off-grid (distributed) electricity
- Carbon capture
- Sustainable biofuels
- (Solar) storage
- Clean energy materials
- Heating and cooling in buildings

According to Sir David, the UK has pledged $800 million a year to Mission Innovation, over which he and the FCO have strong influence/oversight, working closely with Nick Hurd and BEIS. HMG is keen to focus their investment in the UK on UK companies, and to partner with the Breakthrough Energy Coalition (and others). Sir David is in close touch with the Breakthrough Energy Coalition and its champion, Bill Gates.

The Breakthrough Energy Coalition is a privately-funded initiative, also launched in the run up to Paris, to commercialise innovative low carbon technologies. Its contributors are mainly from the US, but include Mukesh Ambani (Reliance) and two British entrepreneurs (Sir Richard Branson and Chris Hohn of the Children's Investment Fund). Precise amounts pledged are unknown, but will be announced soon and are in the $billions. It is working increasingly closely with Mission Innovation.

Sir David would like to explore the possibility of cooperation between Mission Innovation, the Breakthrough Energy Coalition and the oil and gas sector – because of their ability to deploy quickly and at scale. His strong preference is to start discussions with BP, because of the UK focus, but OGCI CI may be an alternative partner if is BP is not interested.Specifically, he is proposing two further meetings:

- An initial technical meeting with qualified BP/OGCI CI representatives to understand legal and IP implications of potential collaboration with BP and/or OGCI CI.
- A high-level meeting between Sir David, the two British contributors to the Breakthrough Energy Coalition, and Bob Dudley.

2. **The Prosperity Fund.** Another part of HMG that's keen to work with OGCI is the Prosperity Team. Alan Searl, head of the Energy Transformation Programme, which is FCO-based and part of the Cross-Whitehall Prosperity Fund, wishes to have a discussion with OGCI about whether it is possible for OGCI CI and the Prosperity Fund to fund some projects jointly. His initial approach was via the OGCI general email, but BP has followed up with preliminary conversations.

   The Prosperity Fund has over a billion pounds to invest in projects in qualifying countries by 2020. The idea is to invest in areas which will improve the prosperity of the country in question, while also improving bilateral relations and making it more likely to be accessible to UK exporters/investors. Areas that are being considered are transparency, governance, infrastructure, health and, potentially, low-carbon energy and possibly carbon pricing. Searl seemed to be hoping it might be possible for OGCI to invest around £30-50m in energy transformation to succeed in leveraging at least an equivalent amount from the Prosperity Fund. He suggested that it would be necessary to make a bid by March next year.

3. The third approach is more informal and has come from BEIS to the OGCI CCUS work stream to explore possible CI-HMG co-operation specifically on CCS. Discussions have not yet taken place.

Apart from the need to proceed cautiously, what is our initial

thinking, in particular in relation to Sir David King's proposition?

COP22: Marrakech

COP22 took place 8-18 November in Marrakech, Morocco and was the first major UN climate meeting following the Paris agreement in 2015. The mood heading into the conference was positive following the early entry into force of the Paris agreement on 4 November. Expectations were, however, also realistic as to what would be achieved. While the Paris agreement set a high level framework, Marrakech and subsequent COPs need to flesh out the technical details, guidelines, rules and procedures that will enable the Paris ambitions to be put into action.

Overview

COP22 was attended by over 20,000 participants, hosting hundreds of side events and exhibits alongside the negotiations themselves. It was less high level than Paris, with only a small number of heads of state attending (e.g. Hollande). Nonetheless, ministers came out in force (e.g. Kerry, Hurd, Royale). Outside of governments, the usual ‘non-state actors’ were in attendance (NGOs, business, city and state representatives), but overall delegations were more modest than T COP21. Like BP, most of our European peers sent 1 or 2 delegates. Chevron was also present, though other US companies were not visible.

Outcome of the negotiations

The main outcome of Marrakech was **agreement on a 2018 deadline to agree on the “rule book” for the Paris agreement**. This will tie in with the planned 2018 “informal stocktake” on progress agreed in Paris. For Article 6, which relates to future possible carbon markets, countries agreed to submit their proposals on how different elements might work by March 2017, to inform a roundtable discussion in May 2017. The aim is to conclude work within 2 years, though this seems ambitious.

Most negotiators seemed reasonably satisfied with the Marrakech outcome given the complexity of what needs to be achieved and the acknowledgement that it will take time to put flesh on the bones of the Paris agreement. Getting everyone on the same page and agreed on timelines is in itself an achievement.

A political non-binding statement, the ‘Marrakech Action Proclamation for our Climate and Sustainable Development', was also agreed. This essentially reaffirms political commitment for ongoing implementation of the Paris agreement.

US election

The outcome of the US election dominated most of the conference, with many delegates concerned about the potential impact of US withdrawal (as Trump has vowed on the campaign trail). The success of Paris was largely due to the joint leadership of Presidents Obama and Xi Jinping and, as the second largest emitter, the participation of the US is widely seen as critical. Concerns about a possible Trump announcement prompted a raft of statements from China, EU, Japan, the UN and many others reaffirming the resilience of the Paris agreement and their commitment to its implementation, regardless of US actions. It was clear that countries are keen to not have the Paris process side-tracked by one nation – even one as significant as the US. The UK also ratified the agreement during COPTotal number of ratifications now stands at 114.

For their part, the official US delegation continued to affirm their commitment and the inevitability of the low carbon transition. Obama, with Merkel, released an op-ed saying that climate change should be a top priority in international fora, including the G7 and G20.

The US, like any Party, can formally leave the Paris agreement, but must give 4 years' notice. They can also choose to leave the UNFCCC (framework convention) altogether – which paradoxically requires only 1 year's notice. However, irrespective of the technical/legal requirements, the US can choose to disengage politically, and stop honouring funding or other commitments at any time. The Trump Adminstration also could choose to roll back various regulations and executive orders issued by the Obama Administration, which upderpinned the US INDC. To date, Trump has not formally confirmed what his position will be in office.

Other COP22 announcements and developments

Outside of the negotiations themselves, there was the usual suite of announcements. Some of note include:

- "The Marrakech Partnership for Global Climate Action", driven by Laurence Tubiana and her Moroccan counterpart, Hakima El Haité. This builds on the Lima Paris Action Agenda and sets out a detailed plan for how the UNFCCC will engage with non-state actors, including the private sector. The importance of the role of non-state actors was emphasised throughout the conference.
- "2050 Pathways Platform"- a coalition of 22 countries (including US, UK, Germany, France, Canada), 15 cities, 17 states and 196 businesses (through We Mean Business) which pledge to develop long-term, net zero-GHG, climate-resilient and sustainable development pathways.
- Mission Innovation pledged to double their clean energy research and development funding over five years to around $30 billion (USD) per year in 2021.
- A new Carbon Pricing Commission, under the CPLC, co-chaired by Nicholas Stern and Joseph Stiglitz, will look at the "social cost of carbon" and report to the World Bank spring meetings in 2017.

IPIECA launched their report on low emissions pathways and numerous events on CCUS, carbon pricing and the energy transition took place throughout the 2 weeks. OGCI was mentioned positively at a few events (e.g. IEA and Jim Skea (IPCC)).

Next steps

The next COP will take place at the UNFCCC headquarters in Bonn in November 2017. It will be hosted by Fiji.

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Kathrina Mannion

18 November 2016

IEA World Energy Outlook 2016 – summary of the key scenarios

1 The New Policies Scenario

The WEO central case, the New Policies Scenario (NPS), is based on the IEA's assessment of policy trends, taking into account "the aims, targets and intentions that have been announced". A key source now is the extensive set of Nationally Determined Contributions (NDCs) which form part of the Paris Agreement. The IEA does not take them at face value – judgment is applied in assessing how far and how fast the commitments are likely to be met. (Note that in some cases this assessment may lead the IEA to conclude that a country will go further and faster than their NDC.)

	New Policies Scenario				2040 change
	Growth 2014-40		Fuel shares		vs WEO 2015
	% pa	% total	2014	2040	%
Total energy	**1.0**	**31**	**100**	**100**	**-0.4**
Coal	0.2	5	29	23	-6.2
Oil	0.4	12	31	27	0.9
Gas	1.5	49	21	24	1.8
Nuclear	2.3	78	5	7	-1.6
Hydro	1.8	60	2	3	0.9
Bioenergy*	1.1	33	10	11	0.3
Other renewables	6.9	473	1	6	10.6
CO2 emissions	**0.5**	**13**			**-1.0**

* Includes tradtional biomass e.g. firewood, animal dung

Key assumptions:		
	2020	**2040**
Oil price ($2015/bbl)	79	124
Hennry Hub gas ($2015/mmBtu)	4.1	6.9
Carbon EU ETS ($2015/t)	20	50
World GDP growth (2014-40)	3.4% pa	

Total energy consumption grows by 31% between 2014 and 2040 (1.0% p.a.), while carbon emissions from energy grow at only half that rate. The changes in the headline numbers compared to the last edition of the WEO reflect the downward revision to GDP growth (from 3.5% p.a. to 3.4% p.a.). Total energy demand in 2040 is 0.4% lower than in last year's WEO, while global GDP is about 2.5% lower (which implies an increase in global energy intensity in 2040 versus WEO 2015).

The very slight change in total energy demand masks some more significant shifts at the fuel level, with a particularly large decline in coal consumption compared to WEO

2015 and a large increase in renewables. The net effect is a reduction in carbon intensity, with total carbon emissions in 2040 1% lower than last year.

Gas has been revised up slightly this year and remains the fastest growing fossil fuel. The combined share of oil and gas falls marginally over the scenario period, from 52% in 2014 to 51% in 2040.

The oil price path in the NPS shows a recovery to $79 by 2020, then a rise to $124 by 2040 (all in real $2015). That is very slightly lower than last year's WEO, and oil consumption is slightly higher in 2040 despite lower GDP, which suggests the IEA are a little less bearish on long-term oil supply prospects than they were last year.

2 The 450 Scenario

The WEO2016 retains the 450 Scenario as the principal decarbonisation scenario, with "the objective of limiting the average global temperature increase in 2100 to 2 degrees Celsius above pre-industrial".

	450 Scenario				2040 change
	Growth 2014-40		Fuel shares		vs WEO 2015
	% pa	% total	2014	2040	%
Total energy	0.3	9	100	100	-2.1
Coal	-2.6	-49	29	13	-19.8
Oil	-1.0	-22	31	22	-0.7
Gas	0.5	14	21	22	-1.0
Nuclear	3.4	140	5	11	-2.3
Hydro	2.2	77	2	4	0.8
Bioenergy*	1.9	63	10	16	-0.9
Other renewables	9.1	872	1	12	19.6
CO2 emissions	-2.1	-42			-1.9

* Includes tradtional biomass e.g. firewood, animal dung

Key assumptions:

	2020	2040
Oil price ($2015/bbl)	73	78
Hennry Hub gas ($2015/mmBtu)	3.9	5.4
Carbon EU ETS ($2015/t)	20	140
World GDP growth (2014-40)	3.4% pa	

The 450 Scenario has carbon emissions falling by 42% from 2014 to 2040, or just over 2% p.a.. To achieve that, total energy growth is limited to 9% (0.3% p.a.), and there is a radical shift in the fuel mix, with coal consumption almost halved and renewables growing almost ten-fold. Gas continues to grow but only slowly (0.5%

p.a.), and oil is down 22%. The combined share of oil and gas in this scenario falls to 44% by 2040.

Compared to WEO 2015 the big change is a much sharper shift away from coal and towards renewables. Despite that, we do not see a decline in the overall carbon intensity of energy consumption in 2040 versus WEO215 (in fact it is actually slightly higher this year, with carbon emissions down 1.9% while energy demand is down 2.1%). The reason appears to be a big reduction in the amount of CCS deployed in this scenario, so in effect it is a switch from coal-with-CCS to renewables.

This scenario requires much stronger policy assumptions than the NPS, as indicated by the carbon price reaching $140/t by 2040, compared to $50/t in the NPS. As a consequence oil and gas prices are significantly lower than in the NPS – particularly for oil which stays below $80.

IEA World Energy Outlook 2016 – some observations

The headline numbers show little change, but behind the headlines there is quite a lot of innovation in this year's WEO:

A more bullish view on renewables
Renewables have been revised upwards significantly, particularly solar (up 40% in 2040 versus WEO 2015). This reflects a re-assessment of renewables economics, including a detailed analysis of the challenges and costs of integrating a growing share of intermittent renewables into the power system. The IEA notes that rapidly falling costs will allow the subsidy burden to peak and start falling, with renewables increasingly able to compete without subsidy support.

A faster transition in China
Chinese coal consumption peaked in 2013 according to this year's WEO; last year the IEA had Chinese coal continuing to grow until around 2030. This comes from a combination of slower GDP growth, a faster shift away from coal-intensive activities, and more rapid expansion of non-fossil fuels (nuclear and renewables).

More focus on energy efficiency
The WEO now has a whole chapter on the outlook for energy efficiency, which stands alongside the regular chapters on fuel outlooks. (Despite this, or perhaps because of this, the decline in global energy intensity is actually slightly slower in this year's WEO.)

A first look at "well below 2 degrees"
While the 450 Scenario remains the principal decarbonisation scenario, the IEA has taken a first look at what "well below 2 degrees" might mean, and even a 1.5 degrees case. Neither of these is developed as a full scenario. The bottom-line is stated rather diplomatically: "The 2^{o}C pathway is very tough: the road to 1.5^{o}C goes through uncharted territory".

A less optimistic view on CCS

In contrast to the greater optimism on renewables, the IEA has become much less optimistic on the pace of deployment of CCS, even – or perhaps especially – in the 450 Scenario.

More explicit views on fossil fuel risks
The WEO includes an assessment of the risks to fossil fuel producers under its decarbonisation scenarios. It emphasises that the most significant risk comes from poorly designed and implemented polices, rather than from decarbonisation per se: "we find no reason to assume widespread stranding of upstream oil assets in the 450 Scenario, as long as governments give clear signals of their intent and pursue consistent policies".

But some things haven't changed:

Hotelling still rules
The WEO maintains the assumption of rising oil and gas prices. OPEC is still expected to manage output to support high oil prices, against a backdrop of depletion and increasing costs for non-OPEC oil. This remains one of the key differences between our Outlook and the WEO.

Group Economics Team

November 2016

Other issues – for information and decision

IPIECA

- IPIECA's Low Emissions Pathway, including a high level assessment of net zero, was launched in Marrakech.

CCAC

- CCAC launched its first annual Oil & Gas Methane Partners Report on 18th Oct.
- BP (through Bob) provided a quote for the report and mentioned our participation in CCAC as part of his speech at the upcoming Oil and Money Conference on the 18th October.
- BP will report our progress in the second report due mid 2017.

Other executive speeches

- Bob Dudley and Tufan Erginbilcic made speeches at the World Energy Congress in Istanbul on Oct 11 and 12 that refer to climate change.
- Dev Sanyal gave a speech in Paris at IFPEN in October and and wrote an article for Handelsblatt in November based on a speech at the Reichstag in September.

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German climate-related issues

- Germany has published an ambitious climate action plan seeking GHG emissions cuts of about 55% economy-wide by 2030, but lower or higher cuts in specific sectors.
- If fully implemented, initial analysis suggests that while it could create opportunities, for example in renewables, it would, on balance, have generally negative impacts on our sector.

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CDP

- *CDP 2016*
    - BP initially received a score of C from CDP. After review and correction BP achieved a score of B.
    - Two constructive meetings have been held with CDP to discuss and further clarify understanding of the 2016 CDP submission, guidance and scoring criteria. Key points identified in these meetings:
        - The proliferation of guidance and scoring criteria has introduced complexity and CDP committed to streamline these.
        - With respect to risk-focused questions CDP:
            - Is looking for company-specific information.
            - Is not only seeking information on the strategic business risk from climate change.
            - Is seeking granular climate change risks such as those as a result of specific changes in regulation in a country or region.
        - All information submitted to CDP must be described fully as a stand-alone submission. Reference to the BP Energy Outlook or Sustainability Report is not sufficient to gain points without detailed explanation of what they are and their function.
        - CDP confirmed the 2017 submission will not materially change from 2016.
        - CDP will invite BP to consult with their 'Reimagining disclosure initiative' that will reformulate CDP in 2018 to sector specific disclosure.
    - Further internal work is underway to evaluate our learnings and potential approach to recommend next steps.

- *CDP O&G Sector Research Report – In the Pipeline.*
    - CDP have released the seventh in their series of sector research reports. It compares and ranks eleven global oil and gas companies on their preparedness for a transition to a low-carbon economy.
    - BP ranks fifth but is the lowest ranked of the European companies, trailing Statoil, Eni, Total and Shell.
    - Companies are assessed against five categories and rated from A to E and ranked 1 to 11 for each category.
        1. <u>Fossil fuel asset mix</u> – BP is ranked 1st and rated A – based on ratio of gas/oil production and reserves (not including Rosneft)
        2. <u>Capital flexibility</u> – BP is ranked 8th and rated C – BP is at the mid-point of the table or below for all of the sub-categories and bottom for finding costs.
        3. <u>Climate governance and strategy</u> – BP ranks 5th and rated C – BP is rated highly for size of existing Alternative Energy portfolio but held back overall by low score for climate regulation supportiveness, lack of climate links to executive remuneration, and low level of climate expertise on the board.
        4. <u>Emissions and resource management</u> – BP ranks 7th and rated D – BP is slightly ahead of the pack on flaring performance, but overall is held back by the lack of GHG target. Eight out of the eleven companies do publicly disclose a GHG emissions reduction target.
        5. <u>Water resilience</u> – BP ranks 10th and rated E – BP ranks poorly for both upstream exposure to water stress, and water withdrawal rate.
- CDP acknowledge limitations in their analysis (e.g. data quality, availability and consistency within and between companies) and that the rankings are only indicative. Our own preliminary analysis

confirms this and we have concerns we will express regarding the selection of some metrics and the calculation of some company specific values. We were concerned by CDP's unfiltered use of InfluenceMap information to partly determine the governance score.

IMWG

- The next meeting on 5 December will be asked to finalise positions on Biofuels and Electrification of Transport and finalise the 2017 agenda. It will also discuss:
    - Supply chain sustainability (new position)
    - Biodiversity (new position)
    - Renewable energy (new position)