

Q. How do the full cycle economics of oil and gas developments compare to the full cycle economics of wind and solar? How will this change in the next 5-10 years? How will this impact the cost of energy to the consumer over the next 5-10 years?

Gather data on full cycle economics O&G (financial results of supermajors and independents through cycle ROACE) and renewables returns (banking presentations)

Note the difference in risk and reward, financial profiles and cycle time of the investments

Comment that movement over the coming years will be governed by intrinsic factors (industrial efficiency, competition) and extrinsic factors (policy, social concerns)

Strong macro trend on electrification of the world. Strong macro trend on sustainability goals at national, local and corporate levels (83% of world's carbon covered by a promise of some kind). Many different approaches being put in place to put an actual or implied price on carbon.

From a consumer perspective there are two factors to consider demand side dynamics and supply side dynamics.

Demand side dynamics high level comments....

Talking about likely different pathways in developed economies and developing economies?

Supply side dynamics high level comments...

Comment on globalization/deglobalization as a general trend/theme?

Comment that there is not global outcome here (e.g. rural America may look different than urban center)

Oil and gas trends/comments)

NOCs, IOCs;

Talk about the role of oil and gas in different end use sectors

Not all oil or gas is the same, talk about characteristics of what will 'win'.

What could be disruptive to oil and gas

Renewables trends/comments

Fundamentals show a continuing falling off of cost of supply (cite Lazard/Wood Mac LCOE data) which support wide scale growth in power markets to moderate levels of penetration. Marginal cost at higher levels of penetration will depend upon management of intermittency which in turn depends upon system (grid level) dynamics and the growth of storage mediums (batteries/hydrogen)

Impact on consumer

Talk about what creates a smooth transition vs. a dislocated/disrupted transition?

In general expect the cost of energy to the consumer to not be disrupted extensively unless governments and climate change disrupt it?

Q. Should there be a “social responsibility” for traditional oil and gas companies to help drive the energy transition? Is this consistent with the majority of shareholders goals?

There are a few levels one could choose to answer this question on.

At a fundamental level the right for any company or enterprise to exist is granted by its customers and its stakeholders. So for our companies to exist they must be seen as socially responsible, having sustainability (and thus value) and therefore be worthy of shareholders trust and investment. So whether we term this social responsibility, there is a reality that major shareholders see climate as a macro level threat to value and therefore are applying extensive pressure to boards and companies to demonstrate they are acting to address climate change and boards and executives need to respond to this or they risk being unable to attract capital and manage long term enterprise level risk.

Alongside this, bp has also believed that it is an energy company, not an oil and gas company and so we need to supply energy that our customers want in the form they want it.

We are also part of society at large and as such are responsible for attending to and proactively addressing themes that are relevant to the societies we operate in.

Bp tried to address this in 2020 by introducing a new purpose, vision and strategy supported by 20 aims that sought to make our position clear on a range of issues that were on shareholders minds. (BRING HANDOUTS). This brought transparency to our position and allows shareholders to invest with confidence and measure our delivery.

Note: This has been interesting internally as it has meant the company taking positions on subjects which are increasingly politicized and subject to a wider range of employees opinions that conventional matters which has raised interesting ethical and moral discussions with staff.

Q. What are the key global actions / policies that could help reduce CO2 emissions quickly, and without significant incremental costs and / or restricting economic growth?

Make 2-3 key points

Q. What have we missed regarding key energy issues?

Make 2-3 key points

Q. What have we missed regarding key climate issues?

Make 2-3 key points

Q. In what year will annual oil consumption peak? Or has it already peaked?

Group economics view in range of scenarios

1. How can we frame the dual climate crisis and energy poverty challenge in a way that aligns interests and results in positive and impactful actions across the developed and developing world?

Xxx

2. What are the most important policy actions that the US can lead with that will achieve the best results, and balance climate impacts with cost/economic impacts? How do we bring the rest of the world along and reduce “freeloaders”?

Xxxx

3. What advancements in science and innovation over the next 5-10 years will have the biggest impacts on the dual energy and climate challenge?

Xxx

4. What can capital providers do to accelerate progress while still making good financial returns? Will there be other ways of generating returns other than purely financial measures like IRR and ROI ?

Note to self AI : Look at Hanon Armstrong investment thesis

5. What can your group do over the next year to make a positive and meaningful impact on the above issues?