Fuelling climate crisis

How the oil industry seeks to distract from meaningful climate action while condemning millions to poverty

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Over the course of 2015 the oil industry - led by Shell - has sought to position itself as both the provider of "the path to prosperity" for the millions of people living in poverty and as the voice of "realism" and "practicality" in the debate on how to avert catastrophic climate change.

Neither position withstands even the most cursory analysis of the actions of Shell or the industry. The industry's rhetoric is wholly contradicted by the core assumption underlying its business plans - global temperature increases of between 3.6°C and 5.3°C; its lobbying against measures to mitigate climate change; and the inadequacy of its own proposals.

It is staggering for an industry which actually fuels the climate crisis to depict itself as "the path to prosperity" for those very people and nations worst affected by the climate impacts of its current business model.

Executive Summary

Climate change threatens development and poverty reduction

The World Bank is unequivocal in saying that *"the task of promoting human development, of ending poverty, increasing global prosperity, and reducing global inequality will be very challenging in a 2°C world, but in a 4°C world there is serious doubt whether this can be achieved at all."* The Elders assert that action to avert the climate crisis is essential to shared global prosperity stating: "climate stability underpins prosperity, poverty alleviation and the rule of law."

The oil industry is betting on catastrophic climate change

Shell and its peers in the oil industry have made clear that they do not foresee even a 50% chance of limiting temperature increase to 2°C. Shell has said that: *"both our scenarios and the International Energy Agency (IEA) New Policies Scenario (and our base case energy demand and outlook) do not limit emissions enough to be consistent with the back-calculated 450 ppm 2°C scenario."* BP states that *"Emissions [will] remain well above the path recommended by scientists."*

The oil industry blocks proposals to prevent climate change

Oil majors' support for climate action appears conditional on such action not negatively impacting their core business plan of unchecked expansion. They support only those restrictive measures which affect other industries - most notably coal - and benefit theirs (gas) while strenuously fighting any efforts to restrict oil and gas demand. In California oil majors including Shell recently successfully lobbied and carried out an extensive advertising campaign to remove a proposed target of reducing petroleum consumption from state legislation.

The measures proposed by the oil industry are inadequate

Carbon Pricing

The six major European oil and gas companies (BP, Royal Dutch Shell, Total, Statoil, Eni and BG) have called on governments to introduce local and global carbon pricing systems. John Ashton, UK climate envoy from 2006-2012, said earlier this year with regards to carbon pricing: "It is now widely understood, except by those who live inside such models, that a climate response based primarily on a carbon price will deliver only *marginal change. Politically it serves as a brake on ambition not a stimulus [...] to hard caps on emissions."*

Switch from coal to gas
Shell has repeatedly argued that the focus should be on reducing emissions by switching from coal to natural gas. Although gas can be less carbon intensive than coal, the numbers and the rhetoric don't match. As world leaders are attempting to achieve climate stability and, more importantly, with renewable technology costs plummeting, gas is extremely unlikely to boom nearly as much as energy giants are hoping. According to a seminal report on climate and health from The Lancet, from June 2015, the time for coal-to-gas switching has *"almost certainly passed"* if we want to avoid dangerous climate change.

Carbon capture and storage (CCS)
CCS refers to a range of mostly beta-stage technologies designed to capture the carbon dioxide released by burning fossil fuels and store it indefinitely, with the intention of breaking the link between carbon emissions and climate change. Although the technology has enjoyed widespread support from politicians and industry around the world, CCS projects have extraordinarily high cancellation rates and despite heavy public funding, there are only a very small number of CCS plants in operation globally.

Shell itself has only invested in two CCS projects around the world, and its CEO recently said the firm could not invest more heavily in the technology because shareholders would be unhappy with the low returns. Instead Shell and other oil and gas companies want taxpayer funds to be allocated to an unproven technology.

Full briefing

Climate change threatens international development and poverty reduction

There is agreement among scientists, international organizations and world leaders that there is little hope for development for the world's poorest in a 4°C world. Research published by the World Bank Group is unequivocal. Climate change *"poses a substantial and escalating risk to development progress that could undermine global efforts to eliminate extreme poverty and promote shared prosperity."*

This 2014 report warns that without *"concerted action, temperatures are on pace to rise to 4°C above pre-industrial times by the end of this century"*.

"The consequences for development would be severe as crop yields decline, water resources change, diseases move into new ranges, and sea levels rise. The task of promoting human development, of ending poverty, increasing global prosperity, and reducing global inequality will be very challenging in a 2°C world, but in a 4°C world there is serious doubt whether this can be achieved at all."

The health impacts of climate change in developing countries are also expected to worsen as populations continue to grow. According to a report published by The Lancet in June of this year, *"The implications of climate change for a global population of 9 billion people threatens to undermine the last half century of gains in development and global health."*

In 2014 the international credit ratings agency Standard & Poor published a report entitled: "Climate Change Is A Global Mega-Trend For Sovereign Risk." Sovereign risk is an indicator of a country's economic health and its ability to meet its debt obligations.

It concludes that *"while most sovereigns will feel the negative effects of climate change to some degree, we expect the poorest and lowest rated sovereigns will bear the brunt of the impact. This is in part due to their reliance on agricultural production and employment, which can be vulnerable to shifting climate patterns and extreme weather events, but also due to their weaker capacity to absorb the financial cost."*

The worst impacts of climate change on the world's poorest nations could still be avoided by holding global temperature increases below 2°C which the World Bank Group states will *"require substantial technological, economic, institutional and behavioral change."*

The 2014 World Bank Report states that *"every effort must be made to cut greenhouse gas emissions from our cities, land use, and energy systems now and transition to a clean, low carbon pathway."*

In a recent letter to world leaders, The Elders assert that action to avert the climate crisis is essential to shared global prosperity stating: *"climate stability underpins prosperity, poverty alleviation and the rule of law."*

Supporting the World Bank's call for a low carbon pathway for energy access and economic development, the Elders also state: *"Plainly, poor countries must grow in order to reduce poverty and meet the aspirations of their citizens, and growth requires energy. So developing countries must grow in a way the world's industrialised societies did not: using clean energy that decouples economic growth from greenhouse gas emissions."*

The Elders call for world leaders to *"approve a financial package that will ramp up investment in clean energy and support adaptation by poor countries."*

Limiting global temperature increase to below 2°C to avert the worst impacts of catastrophic climate change is necessary to ensure a "path to prosperity" for the millions currently living in poverty.

The oil industry is betting on catastrophic climate change

The oil industry's self-positioning as the champion of development is in conflict with its business plans and oil demand growth projections which depend on catastrophic climate change. A recent study published in Nature found that one third of all existing oil reserves must be left in the ground in order to achieve global climate goals.

The oil majors are betting on the world failing to limit temperature increase to below 2°C - the point agreed by many governments at which the consequences for development become critical.

Shell, BP, and ExxonMobil have all made clear that they do not foresee even a 50% chance of limiting temperature increase to 2°C (the International Energy Agency's (IEA) 450 Scenario).

In her response to the six European oil and gas majors' May 2015 call for a global carbon price, UNFCCC Executive Secretary Christiana Figueres reminded them of the G7 call for decarbonisation by the end of the century and called on the companies to *"plan for these long term scenarios by setting out how you will transition your companies to meet the challenges of the 21st Century."* There is, as yet, no evidence of the oil companies doing this.

The oil industry's fossil fuel projections suggest a pathway to climate crisis with temperature increases of 4°C or higher.

Shell's scenario

Shell states that "[b]oth our scenarios and the IEA New Policies Scenario (and our base case energy demand and outlook) do not limit emissions enough to be consistent with the back-calculated 450 ppm 2°C scenario. We also do not see governments taking the steps now that are consistent with the 2°C scenario."

BP's scenario

BP states that "[e]missions [will] remain well above the path recommended by scientists, illustrated by the IEA's 450 Scenario. In 2035, [we predict] CO2 emissions are 18 billion tonnes above the IEA's 450 Scenario."

ExxonMobil's scenario

ExxonMobil states that "[w]hile the risk of regulation where GHG emissions are capped to the extent contemplated in the "low carbon scenario" [this refers to an MIT 450 ppm scenario] during the Outlook period [to 2040] is always possible, it is difficult to envision governments choosing this path in light of the negative implications for economic growth and prosperity that such a course poses [...]. The Outlook demonstrates that the world will require all the carbon-based energy that ExxonMobil plans to produce during the Outlook period."

The oil industry blocks proposals to prevent catastrophic climate change

Oil majors' support for climate action appears to be conditional on any such actions not impacting their core business plan of unchecked expansion. They support only those restrictive measures which affect other industries - most notably coal - and benefit their gas interests while strenuously fighting any efforts to restrict oil and gas demand. In California oil majors including Shell recently successfully lobbied and carried out an extensive advertising campaign to remove a proposed target of reducing petroleum consumption by 50% by 2030 from state legislation.

While claiming to support renewable energy, a number of oil majors in Europe have lobbied extensively and successfully against the setting of any renewable energy specific targets or incentives, instead calling for 'the market' to be allowed to determine the solution to what is the greatest market failure in history - climate change. It has been reported that Shell, supported by BP, Statoil and Total, successfully lobbied against renewable energy and energy efficiency targets in Europe, undermining support for a much stronger approach that included binding 40% RE and 40% energy efficiency targets, despite public support from companies such as Unilever, Philips, DSM and Interface.

Shell is reported as the sixth biggest lobbyist in Brussels, spending between €4.25-4.5m a year lobbying the EU institutions, according to the bloc's transparency register.

Shell and other oil companies such as Exxon, Total and BP are also members of organisations including the American Petroleum Institute, Fuels Europe, the EU Chemical Industry Council (CEFIC) and the International Association of Oil and Gas Producers. All of these organisations are reported to have worked to obstruct progressive action on climate change.

The measures proposed by the oil industry will not prevent the climate crisis

As Tom Burke states, *"to have a good chance of avoiding dangerous climate change the world must get to net zero carbon emissions by 2100. That is for emissions from all sources including agriculture and deforestation. For the global energy system it means getting to carbon neutrality much earlier – at or soon after 2050. This goal collides directly with the oil companies' business model."*

European oil and gas majors have put forward three incremental measures to address climate change. These are, at best, a distraction from the action necessary to ensure climate stability and sustainable prosperity in developing nations.

Carbon Pricing

At the end of May six European oil and gas majors (BP, Royal Dutch Shell, Total, Statoil, Eni and BG) wrote a letter which called on governments to: *"introduce carbon pricing systems where they do not yet exist at the national or regional levels and create an international framework that could eventually connect national systems",* i.e. a global carbon price.

In her response UNFCCC Executive Secretary Christiana Figueres stated *"I would be interested in your thoughts regarding what price of carbon would be needed to achieve particular outcomes such as fuel switching, and CCS. This type of detailed dialogue between government and industry has not occurred in this way before and will be an important step on the road to an effective global agreement."*

As this response suggests, while the oil and gas major's intervention may have appeared progressive, the devil is in the detail.

Price level

Shell and BP publicly disclose that they integrate a carbon price of $40 a tonne in internal decision making. As of yet, they and their peers have not publicly responded to Christiana Figueres' request that they provide information on the pricing level necessary to achieve switching or indicated what price they would be willing to support.

Impossibility of a globally coordinated approach within the time available

Tom Burke describes the European majors' call for a global carbon price as a measure to buy the industry time from making fundamental changes saying, *"the intent is to create the impression of an industry in favour of urgent action whilst actually slowing that action down."* Burke also points out that there is no chance of 190 nations agreeing a global framework and coordinating their energy policies within the time available to ensure climate stability.

Impact of a carbon price

John Ashton, the UK envoy for climate change from 2006-2012, said in an open letter to Ben van Beurden that: *"Leaving aside the poor execution of the European Emissions Trading Scheme, a carbon price can only ever drive change at the margin. And it will not do that as well in real life, with all its uncertainty about forward prices and conflicting price signals, as it will in a well-behaved model. It is now widely understood, except by those who live inside such models, that a climate response based primarily on a carbon price will deliver only marginal change. Politically it serves as a brake on ambition not a stimulus, especially when accompanied by an aversion [...] to hard caps on emissions."*

Even the economically orthodox World Bank doesn't see carbon pricing working on its own without clean power mandates.

Switch out coal for gas
In his February 2015 speech at the International Petroleum Week dinner, Ben van Beurden said that the focus *"should be on reducing emissions by switching from coal to natural gas"*. This has also been the position of BP for a number of years. Reports of oil and gas industry lobbying in Europe also suggest they are emphasising the role of gas.

Although gas is a less carbon intensive fuel than coal, which to some extent it could replace in the power sector, the numbers and the rhetoric don't match. The reality is that gas is extremely unlikely to boom nearly as much as energy giants are hoping in a world where global leaders are attempting to avoid the worst impacts of climate change, while renewable technology costs are plummeting.

The messaging appears to be a cynical move on the part of Europe's biggest oil companies: pretending they are advocating for action on climate change while promoting a solution of global carbon pricing that is not only completely unworkable, but which could also be seen as designed primarily to support swapping from coal fired electricity generation to gas.

According to a recent report from The Lancet the time for coal-to-gas switching as a strategy – which is what the EU oil majors are essentially proposing with their global carbon pricing idea – has "almost certainly passed" if we want to avoid dangerous climate change. *"It is increasingly difficult to justify large-scale investment in unabated gas-fired infrastructure,"* the report states.

This is echoed by Bloomberg New Energy Finance's (BNEF)'s most recent energy scenario analysis. If economies have access to plentiful supplies of cheap solar power, including on rooftops, and demand for electricity decouples from economic growth – as it has been doing in 2014 - then it says *"Natural gas will not be the "transition fuel" to wean the world off coal."* Shell projects that gas demand won't peak till after 2040 or 2050, depending on the scenario. But to avoid catastrophic climate change, gas generation needs to peak much sooner (around 2030-40), according to the International Energy Agency's (IEA)'s 450 scenario.

Both Shell and the IEA assume the roll out of carbon capture and storage. Without it the IEA warns that new gas generation, in the relatively long term is incompatible with climate action. This would explain the third pillar of the oil and gas industry response to climate change - mass public investment in carbon capture and storage is essential to the companies' business plans.

Carbon capture and storage (CCS)
CCS refers to a range of technologies, not yet in commercial use, designed to capture the carbon dioxide released by burning fossil fuels and industrial processes and store it indefinitely with the intention of breaking the link between fossil fuel use and climate change.

Shell's CEO has been vocal in calling for increased investment in CCS to tackle climate change. However, even in Shell's Mountains energy demand scenario, which assumes a rapid growth in the deployment of CCS, particularly post 2050, global average temperature warming rises significantly above the 2°C limit, leading to a climate and international development crisis as outlined above.

To date, Shell has only invested in two CCS projects around the world and the firm's CEO Ben van Beurden recently stated that the firm could not invest more heavily in the technology because shareholders would be unhappy with the low returns thus implicitly accepting that it is not commercially deployable. Instead companies like Shell want taxpayer funds to be allocated to an unproven technology.

Despite years of enthusiastic backing from the IEA, the Intergovernmental Panel on Climate Change, a host of major world leaders and most political parties in the developed world, CCS continues to move forward at a snail's pace.

The major utilities that backed Europe's carbon capture platform have this year dropped out, citing cost concerns; and the US government has pulled the plug on its once promising FutureGen CCS facility, also due to money troubles.

CCS projects have extraordinarily high cancellation rates and despite heavy public funding, there are only a handful CCS plants in operation globally.

Of course, it makes sense that the oil industry would support the roll out of a technology which allows greater oil - and gas - extraction, whilst opposing renewable technologies with the potential to limit their market and push down the price of power. But it doesn't make sense for society more broadly as a way of tackling climate change.

Conclusion

Despite its rhetoric on tackling climate change and helping developing nations, the actions of the oil industry do not provide the developing world with 'the path to prosperity' but rather drive us into a climate crisis cul-de-sac.

By blocking specific renewables targets; by blocking legislative measures to reduce demand for oil; and by promoting instead measures which will have only a marginal impact on carbon emissions in the relatively short timeframe available for action, oil majors are deliberately blocking the 'low carbon pathway' that the World Bank states is necessary to prevent a climate and international development crisis.

Until their actions are commensurate with the objective of limiting global temperature increase to 2°C, the oil industry will be seen for what it is actually doing: undermining attempts to avoid catastrophic climate change, and ultimately undermining international development as well.

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