

CROSSTALK

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50 shades of green

In what seems like an unequivocal move BP last month announced its intention to become a net zero company by 2050 or sooner. The detailed strategy is to be revealed in a capital markets day session in September. Under new CEO Bernard Looney, BP is trailing a fundamental reorganization of the company saying that change is necessary as ‘the right thing for the world and for BP’.

The company is to be restructured into four business groups to deliver performance and growth, three integrators to identify and maximize opportunities, and four core enablers to support business delivery (such as increased advocacy for policies that support net zero, including carbon pricing).

BP’s dramatic announcement marks a second attempt at burnishing its green credentials as an environmentally concerned supermajor. In 2000 BP Amoco, as it was then, rebranded to BP – said to stand for ‘Beyond Petroleum’ – with its now familiar yellow and green sunburst logo. Not only was this audacious move praised in the marketing world. Sir John Browne could also lay claim to being the first leader of Big Oil to acknowledge the need for decarbonization. Inevitably there was scepticism, for example a 1999 article in the *The Economist* asked ‘How green is Browne?’ doubting his sincerity.

As we all know, things did not go well for BP in subsequent years. In March 2005 there was an explosion at a Texas refinery inherited in the Amoco merger killing 15 workers and injuring a further 180. This was followed in March 2006 by a huge oil pipeline spill associated with the BP Prudhoe Bay operation in Alaska. Worse was to come in April 2010. BP, by this time under the leadership of Tony Hayward, was found mainly responsible for an explosion on board the *Deep Horizon* drilling rig causing 11 deaths and a catastrophic oil spill in the Gulf of Mexico. So much for the environment ...

If this time BP can be seen to be delivering on its promises, it could offer a starting point for a fresh approach to persuading the community at large that oil companies are not such bad guys after all. Admittedly this is a long shot. The message should be

that within the context of needing to continue supplying the world with an essential resource for the foreseeable future, oil companies must increasingly focus on respecting the environment in their operations and invest in alternatives to hydrocarbons. It would undoubtedly be helpful if other supermajors came out with equally forthright statements, especially as some of them have been moving in the same direction as BP in their businesses, or are actually farther forward.

In fact the Oil and Gas Climate Initiative (OGCI) is a gesture in this direction. Thirteen of the largest and most influential oil companies in the world have clubbed together to subscribe over \$1 billion. The fund launched in 2014 is investing in innovative start-ups which can lower the carbon footprints of the energy and industrial sectors and their value chains and make use of the OGCI network to help them achieve commercial success.

The agenda of OGCI companies includes setting a target to reduce the collective average methane intensity of their aggregated upstream gas and oil operations to below 0.25% by 2025, with the ambition to achieve 0.20%. According to the 2018 annual report, starting from a baseline of 0.32% in 2017, reaching the 0.20% target would translate into greatly reducing their collective methane emissions by more than one-third – approximately 600,000 tonnes of methane annually – by the end of 2025.

The trouble is that initiatives like these are too easily dismissed as corporate ‘greenwashing’, for which there is no ready answer. This is partly because ‘green’ itself has become such a powerful but indefinable term in modern usage.

Depending on the context it can usually be taken to mean environmentally friendly, i.e., incontrovertibly good. Hence its appeal to advocates in the commercial and political sphere. Green Parties have participated in the cabinet of a number of governments in Europe and elsewhere or been involved in electoral pacts providing them with influence. A notable if not coincidental

‘The right thing for the world and BP’

peculiarity of the recent general election in Ireland was that all four of the leading parties have at least partially green logos.

The political evolution of green has meant a much looser connection to the philosophy of prominent early players in the contemporary environmental movement such as Greenpeace and Friends of the Earth. Both these organizations favoured direct action to draw attention to environmental issues and change government policies. It is broadly the strategy of today's Extinction Rebellion that espouses civil disobedience to affect change.

In the seismic community, full marks go to the marine seismic contractor Polarcus. It was possibly ahead of its time when a decade ago it launched its fleet of vessels painted green from bow to stern, effectively appropriating the green label (leaving aside that oceans are normally thought of as blue). The company's intention to be recognized as the most forward-thinking seismic vessel operator was clear. The boats also looked pretty cool. It is a moot point whether its advertised 'Explore Green' sustainable acquisition system has made it a preferred operator when it comes to tendering for work. The last few years have been so bruising for the marine seismic contracting market that, regardless of the quality (or colour) of its vessels, it says a lot that Polarcus has weathered the worst recession in the history of the business.

More whimsically, in this current issue of *First Break*, the latest advertisement from the Australian seismic processing company DUG acknowledges today's colour hierarchy. It refers to a full-page image of red machinery as the 'new green'. The neat claim is that the plant shown represents the 'greenest data centre on the planet'.

Marine and land seismic have rightly had to deal with green issues on many fronts over time, never entirely satisfactorily for the environmental lobby. No need to go into detail here, but the marine seismic contracting is getting close to being regulated out of business in some parts of the world. Australia and Brazil are currently spoken of as the most problematic with numerous environmental safeguards that have to be complied with. Whether all the protections adopted by countries are necessary is arguable. For example the industry has spent millions on research disproving some of the more alarmist claims about the impact of seismic survey operations on marine mammal life. It is a tough case to win in the court of public opinion which is easily persuaded that any loud noise in the ocean is obviously a bad thing.

The International Association of Geophysical Contractors (IAGC) believes that the precautionary principle is increasingly being adopted by government agencies as a basis for regulation in relation to environmental policy. It says that when the actual or potential risks of a particular activity are unclear or unknown, regulators often propose and implement policies which do not

match the risks. The principle is flawed because it 'enables decision-makers to selectively use the approach for political or policy reasons rather than scientific rationale'.

A possibly ominous example of how this could play out follows recent research offshore Australia published by McCauley et al. (2017). The researchers argue from one small study that seismic surveys cause previously unacknowledged, significant potential for mortality to zooplankton populations on the ocean bed. True or not, the claim is out there and of course poses a threat to the conduct of future marine seismic surveys.

IAGC takes issue with the research methodology but its main argument is that the US Bureau of Ocean Energy Management (BOEM) invested 'more than \$50 million on protected species and noise-related research without finding evidence of adverse effects, and the oil and gas industry has contributed a comparable amount of research funding on this topic as well, with the same findings. At least eight studies have demonstrated no effects on plankton at ranges greater than 10-100 m, and no studies have demonstrated impacts on plankton abundance at ecologically meaningful scales.' The question is whether this response will be enough to convince regulators possibly operating on the precautionary principle and/or feeling green pressure from their overlords in government.

The land seismic business has been proactive in seeking to mitigate potential harm caused by its surveys. This was a major motivation for the development of cable-less acquisition systems. Most spectacularly Total with its partners in the Metis project have been exploring drone-based technology to reduce the impact of seismic work in inaccessible or environmentally sensitive areas such as rainforests. (A report on the first EAGE conference on the use of drones in geoscience appears in this issue of *First Break*).

Green concern about the need to preserve land and nature in the face of urban sprawl and industrialisation found an early distinctive voice with the English Romantic poets of the late-18th century and early 19th century like William Wordsworth, John Keats, Samuel Taylor Coleridge, Percy Bysshe Shelley, Lord Byron and William Blake. It was Blake in the preface to his epic poem *Milton* (1804) who wrote 'And did those feet in ancient times'. The words were later put to music by Hubert Parry in 1916 to become known as the legendary hymn *Jerusalem* contrasting 'England's green and pleasant land' with 'dark satanic mills'.

The juxtaposition in those days between hankering for a quite probably mythical pastoral life of peace and wellbeing and condemning of the brutality of life in the new industrial towns is usually interpreted as a reaction to the so-called Age of Enlightenment and triumph of rational thinking, science and engineering. The championing of green today has some uncanny parallels.

'Green concern found an early distinctive voice with the English Romantic poets'