Dr Quintin Rayer and Dr Pete Walton: Bulk offsetting is better than nothing, but…

Reducing net emissions is essential

- Dr Quintin Rayer and Dr Pete Walton
- 12 October 2020

Investors are increasingly aware of climate-related risks associated with extracting carbon from underground reserves, and can see that fossil fuel companies are responsible for a major source of emissions, write Dr Quintin Rayer and Dr Pete Walton. Thus far, though, responses have primarily been limited to shareholder engagement or divestment...

The fossil fuel companies are aware of the financial impacts society's actions have on them, with pressures to halt carbon-based fuel extraction, and associated investment risks intensifying. Future policy and technology

changes could cause extraction firms to lose an estimated $34 trillion of revenue.

Combined with changing investment policies, they may be unable to realise the value of fossil reserves, making current market valuations misjudged. Some argue that fossil fuel assets are increasingly uncompetitive, and their market share dropped from 29% of the S&P in 1980 to 5.3% by 2019.

One response from fossil fuel firms has been to invest in carbon-offsetting measures. For example, Royal Dutch Shell plans to spend $300 million on reforestation, planting more than five million trees among other initiatives. This sounds impressive, but climate-aware investors remain deeply cautious.

Is this a genuine attempt to address underlying problems, or about retaining societal legitimacy to continue their activities? Some commentators, think that Shell's offset projects omit crucial details. This article explores why.

What is carbon offsetting?

Carbon offsetting involves schemes to absorb atmospheric CO2 or to reduce existing emissions. A firm may be unable to avoid emitting CO2 from all its activities so offsetting can ‘neutralise' this problem.

However, offsetting schemes vary in quality, and the amounts of CO2 genuinely removed can be hard to estimate. High-quality projects are designed to avoid double-counting of offset volumes and include verification and registration. Other issues include the permanence of storage for removed carbon; and ‘leakage' where benefits are counted, but a scheme's unintended consequences cause emissions elsewhere.

Shell's plans sound impressive, but are they enough? The $300 million investment forms part of a plan to reduce its net carbon footprint by 2-3% over three years, leaving an enormous gap to fill.

There is concern over whether it covers all sources or ‘scopes' of emissions within Shell's activities. Scope 1 emissions are from sources directly owned and controlled, for example, fuel used by company vehicles. Scope 2 emissions are from energy use, with Scope 3 covering all other indirect emissions, including customers' use of oil and gas.

It makes no sense to extract oil and gas in a carbon-neutral manner. Experts also worry that there is little mention that the schemes are certified or meet minimum standards for being additional, permanent, and avoiding double counting.

Problems with offsetting

Reducing net emissions is essential. However, climate scientists can be wary of over-reliance on offset schemes. A project that generates a 500-tonne offset credit by lowering emissions of 1,000 tonnes by 50%, still emits 500 tonnes. Removal of 500 tonnes from the atmosphere may sound preferable, making a scheme such as tree planting seem a promising approach. Though estimating the amount of carbon absorption from reforestation can be challenging. Reducing emitted gases in the first place may prove more reliable.

Additional offsetting can help, perhaps compensating for 100 tonnes of emissions, with 200 tonnes of offsets from different projects. However, any carbon capture must be permanent on geological timescales, with care also needed to prevent destruction of the storage to avoid releasing the stored carbon. Leakage can also be a problem, for example a project that avoids emissions caused by forest clearance might shift timber production and deforestation elsewhere.

Care would be required to ensure that extensive reforestation schemes do not create monocultures. Apart from fire, the carbon stored in forests with low biodiversity is vulnerable to disease or pests. It is unlikely that in a few decades, humans can recreate the rich diversity of ancient forest ecosystems. Far better to leave them in place.

As mentioned, double counting must be avoided, the problem is a project's carbon value could be counted towards both purchased commercial offsets and as part of national Paris Agreement pledges.

Other gases apart from CO2, such as methane and nitrous oxide, must also be considered, but estimation of the equivalent amount of climate warming is not entirely straightforward. Given the difficulties, although offsetting may be carried out in good faith, the risk is it may prove insufficient. For example, the altitude that the CO2 is emitted plays an

important role, so for air travel at least twice the emissions should be offset to compensate for the full climate impact [18].

If high volumes of carbon offsetting are required, capacity may be insufficient to meet demand. Consequences could include a shortfall or the creation of substandard schemes that fail to yield the promised benefits. Bulk offsetting might also create an impression that everything is under control, leaving no need to adopt low carbon technologies so that business can carry on as usual.

Overall, these concerns indicate it is wiser to adopt a precautionary principle and avoid emissions in the first place. Prevention is better than cure. Particularly with the significant uncertainties involved and the appalling consequences of failure.

Offsetting guidelines

Given the challenges of reliable offsetting and the dangers of unchecked emissions, some guidelines emerge:

- First - reduce emissions as much as possible
- Thereafter, use offsetting to absorb residual emissions

Other requirements include:

- Ensure offsets are additional and avoid double-counting
- Offset by more than the estimated emissions (for air travel, offset at least double the emissions)
- Ensure carbon removal is permanent (well above hundreds of years)

Offsetting may also be used as a practical measure to mitigate the worst effects of emissions, while strategies to adopt lower-carbon technologies are developed and implemented.

How should investors react?

Fossil fuel extraction firms' attempts to offset carbon emissions are better than nothing. Although current schemes sound impressive, they fall short of climate requirements. Offsets do not ‘solve' global warming. Fossil firms may only be addressing the social stigma associated with the harm they have caused.

These schemes are baby steps towards a solution. Offsetting should only be used while firms act decisively to reduce their emissions. As a

temporary mitigating measure - while fossil fuel firms decarbonise - offsetting may help.

Carbon offset programmes should be seen in their proper light: a helpful measure, but no substitute for genuine moves towards low carbon technologies. Ethical and sustainable investors should adopt robust policies to ensure that fossil fuel companies understand this message. By taking early action, ethical investors can show leadership and accrue client reputation. Advisers and fund selectors can identify pro-active managers and guide their clients accordingly.

The science is clear, to prevent dangerous climate change, rapid and decisive steps to reduce emissions are needed. Media commentary shows that much of the public understands this message, even if the finance sector has been slower to adjust. Perhaps fund managers should listen - early movement could reap reputational benefits.

Dr Quintin Rayer is a Chartered wealth manager and is head of research and ethical investing at P1 Investment Management. Dr Pete Walton is a research Fellow at the UK Climate Impacts Programme, University of Oxford

This article may be cited as: Q G Rayer and P Walton (2020), Dr Quintin Rayer and Dr Pete Walton: Bulk offsetting is better than nothing, but…, Professional Adviser, https://www.professionaladviser.com/opinion/4021263/dr-quintin-rayer-dr-pete-walton-bulk-offsetting, 5 pages, 12 October 2020.