COULD DO BETTER

Peter, in response to your submission, please see comments in red.

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You ought to make a declaration of interest at the very start of this letter. Something along the lines of : "I am an oil and gas consultant".

## **Kimmeridge Oilfield Methane Discharges**

How could The Echo fall for the ridiculous and sensationalist headline put out by Fossil Free Dorset regarding the Kimmeridge Oilfield methane emissions?

The Headline reads: "Purbeck's Kimmeridge oil well is pumping methane into the atmosphere" This is a statement of fact as declared by the Environment Agency and also reported by multiple media outlets including the BBC.

Stuart Lane's claim verges on desperation to a lost cause. Why else would he accumulate the combined discharges from over 43 years of oil production at the site unless he knew that the environmental case was weak?

Climate change is being caused by the ACCUMULATION of Green House Gasses. It is precisely the STDCK of gas in the atmosphere that is causing the problem.

Perenco has made a statement that they have now stopped production at the site and that it will only restart following a review of gas release prevention measures. Perhaps Perenco and the Environment Agency also agree that it is unacceptable to continue to add to the pollution that has been emitted by this one small well..... maybe you could ask them given the close links?

When environmentalists stoop this low they lose credibility and the confidence of the public bringing their cause into disrepute.

The oil and Gas industry fund the pseudo-science of climate change denial whilst being the largest source of greenhouse gases. It is a marketing model perfected by the tobacco industry and often involves people with letters in front of their name being paid to discredit research. There is a credibility issue and one that stoops very low indeed.

Let us put the situation into context. 1 cow produces 100 kg of methane per year.

Emissions from cows are ALSO of concern and yes also cause a significant green-house effect. There is research into how to reduce emissions from cows and of course a movement that encourages the reduction of dependence of cows within our food system. But that is not the issue being addressed in the article, it is the wilful and needless venting of methane from this well that appears to have only been allowed due to a loophole in the regulatory system, an old-style permit that has lower standards.

If you really wish to assess the damage in terms of cows however, you are going to have start again with your calculations......

You appear to assume that all cows are the same. The figure you quote perhaps relates to a mature dairy cow? Of course, not all cows in the country are fully grown, in fact 1.5m of them are calves. Beef cattle, which account for more than half of all UK cows, emit less than half the methane when compared to dairy cows. The methane that they produce varies according to breed, diet etc. If you wish to bring in the figures of the UK's stock of cattle for comparison, it better if you create a hybrid 'average' cow's emissions, to avoid

## any exaggeration. This would be less than half of a dairy cow's emissions. The whole premise is however fundamentally flawed.

The production at Kimmeridge oilfield, according to Perenco's EPR Permit Application of April 2017, suggests the well is capable of producing about 70 barrels of oil, or 10 tonnes, daily. Mr Lane then takes all associated gas and assumes it to be methane, (another exaggeration). The vented gas discharged from Kimmeridge, when producing, is just 0.89 tonnes (890 kilos) of gas per day.

Wrong. Calculations are based on the Environment Agency's METHANE emissions data (not total associated gas emissions). Perenco states that 76% of associated gas is methane. The Oil and Gas Association data suggest that the total associated gases are higher than ones used by the EA. In fact, they are MUCH higher and there are unanswered questions about this discrepancy. <u>The</u> <u>lower EA figures have been employed to be prudent</u>. Also, where there was insufficient data, emissions were assumed to be zero. Production data was not available beyond 2003, hence the past 15 years of production has been treated as if it created zero emissions, an <u>under-estimate</u>.

Let's play along with Mr Lane and assume all the gas is methane. 890 kilos represents the annual gas output of just 9 cows! Put another way it represents the daily gas discharges from 3300 cows' bottoms. With the average cattle population of counties in Britain at over 200,000 animals it puts the Kimmeridge discharges into a rather different class. Dorset's cattle herd produce the equivalent amount of methane in 25 minutes! The current price of oil at \$78 (£59) a barrel gives field income of £4256/day whilst the vented gas is only worth £300 at current wholesale prices. What would you do?

See above for comments re your incorrect basis and assumptions regarding cows. Excellent observation regarding market factors. It is probably cheaper for Perenco to discharge the methane into the air than to collect it. Well done; bonus marks for making this observation! Perenco faces no cost for this 'externality' it produces, it is born by those impacted by climate change. Pollution is profitable, and the regulations have given preference to profit over pollution minimisation. Perhaps you could expand on the commercial savings made by this needless pollution? It might be interesting to show the savings made in terms of a percentage of their profits or contrast against the wealth of the private owners? You will find them listed in the Times Rich list..., with something like £6 billion pounds of personal wealth.

Looked at another way, far from running a small town on the gas being vented a small village might be more likely. The 890 kg of methane corresponds almost exactly to the annual gas consumption for one average home in the UK. So you might run 365 homes on the vented gas for an entire year. That would heat a village the size of Milton Abbas or Milborne St Andrew, not a town like Poole as suggested by Mr Lane. Add in the infrastructure costs for the lines to deliver this gas and it becomes completely uneconomic.

Again, fundamental errors here. The issue is not what the gas could have heated if combusted. The issue is that <u>UNCOMBUSTED</u> METHANE is a powerful greenhouse gas. It is the fact that methane released directly into the atmosphere (worry if your central heating does this!) has a potent radiative forcing effect. Therefore, the impact has added up to be comparable with the residents of small city for a year.

Yours Sincerely,

Peter A Read