

With Hydrogen, we don't need to change from gas!

We have written about this before but the pressure by vested interests on government, has led to government and oil companies pursuing the idea of Hydrogen replacing the natural gas that feeds boilers. Currently trials are being developed for the use of hydrogen only for heating.

Green hydrogen can't be cheaper than electricity because it takes more electricity to make it than the direct use of electricity for heat. Per unit of heat produced, Hydrogen uses approximately 4 times more electricity than a heat pump.

Hydrogen is however a useful portable source of energy but per kg provides less energy than petrol. High power is its best use. Used in a Fuel Cell it provides electricity directly to the motor vehicle and weight for weight is better than just batteries. However, the option of batteries alone for lighter vehicles makes hydrogen a second choice for it uses more electricity than batteries.

But we are not able to put heavy batteries in everything and hydrogen produced electricity can fill the gap in applications such as heavy road transport, shipping and aircraft.

There is a lot of greenwash going on at present, the intention of which is to persuade us that we can ignore climate change. Oil companies, anxious to protect their investments, which are still heavily subsidised by us, wish to use gas to make "Blue Hydrogen" which requires significant electricity to transport natural gas from well to chemical plant, process and pump the waste product, CO₂, down an offshore hole to get rid of it. It is simply a way of making use of the gas to justify continuing production. It would be better to use the technology and energy for carbon capture to reduce the carbon in the air and sea and use the electricity for heating.

Hydrogen will not be available in quantity for burning, other than in very specialist industrial areas like steel making. Plants already exist in Sweden producing hydrogen fired steel. Hence why it is so foolish to develop the Workington coal mine to supply the steel industry when, even if it survives, there will be no demand for coking coal by the time the mine is producing. At present it looks as if lack of support from government for hydrogen steel, will effectively kill off the UK steel industry so its need for coal will reduce anyway.

You will no doubt have seen, in the press or social media, suppliers of gas boilers telling you they are hydrogen ready. Well, they are not and neither is the hydrogen. They will also tell you that heat pumps are over-priced and inefficient. Prices have dropped significantly but they can be inefficient if the home is not well insulated as can gas boilers for the same reason.

The oil companies have been warned for decades, what climate change could do. They not only did nothing, even though their own scientists were among the first to understand and accept man-made climate change, the companies sought to dismiss it. They now publicise their investment in green energy but reality is their capital budgets rarely spend more than 10 or 12 % on sustainable energy, the rest spent continuing to develop oil and gas. There is now concern that they have "stranded

assets” which will soon produce no return and the share price will drop. As most pension funds invest in such companies our pensions are dependent on the oil companies looking to the future and decarbonising as fast as possible to protect our investments and our future. Many of us therefore have a direct interest in greening the oil companies and quickly.

The Danish, largely state owned, oil and gas company DONG, in 2017, sold off its oil and gas fields to focus on sustainable energy only, it is now known as Ørsted and is the biggest operator of wind farms globally. In Britain many of the new large wind farms are operated by the company with plans to build many more.

If Ørsted and environmentalists have seen the light, when will the oil companies and government?

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