

Renewables are good money, not just good for the earth

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Climate change has been framed as an ethical issue for years now, with mixed success. But now the calls for socially responsible investing to save the planet are increasingly being reinforced by cold economic logic.

Mainstream institutional investors are recognising that climate change is not just a threat to the health of the planet, but also a threat to the wealth of their clients.

The oil industry is on the front lines of rising investor fears about the long-term returns of fossil fuel energy sources. That is partly because of bitter experience. The European utility sector has seen hundreds of billions of euros wiped off its market capitalisation by the roll out of wind and solar power in the past decade.

The reason why wind and solar energy pose such a threat to the energy system established over the past 100 years is simple: they have a short-run marginal cost of zero.

In other words, when the wind blows and the sun shines, the energy itself arrives for free. Nearly all of the costs of wind and solar energy are in the infrastructure required to capture it, and these capital costs have been plummeting over the past five years. The same is not true for oil and gas, so those sectors will eventually have to recognise that the economics of renewables are becoming irresistible.

BNP Paribas Asset Management's research into the economics of oil and renewables as competing energy sources hammers home the point. We posited that an investor has \$100bn and must decide whether to invest it in oil or renewables, knowing that the energy is destined to power cars and other light vehicles.

Our analysis found that for the same capital outlay, wind and solar projects will produce 3 to 4 times more useful energy at the wheels than oil will at \$60

a barrel for diesel-powered vehicles.

For petrol cars, the ratio is even less favourable – the renewable investment will produce 6 to 7 times more energy. It is therefore increasingly difficult to argue that oil is the superior fuel from an economic standpoint, let alone when environmental issues are considered.

As electric vehicles proliferate, the long-term break-even oil price required for gasoline to remain competitive as a source of mobility could fall as low as \$9 to \$10 a barrel.

With nearly 40 per cent of current demand for oil coming from sources susceptible to easy electrification, oil companies should think very carefully about investing in new long-term projects that have break-even costs much above \$20 a barrel.

This poses a major strategic problem for the oil industry, which has traditionally made its highest returns from finding and extracting crude. Indeed, the oil industry often points to the "profitability gap" between investing in renewables and investing in upstream oil projects, arguing that for as long as the returns are better in oil they have no incentive to invest in renewables.

But this is to miss the key point: over time the returns in upstream oil projects will inevitably decline as oil is forced to compete with an energy source that produces energy at a much lower cost over the lifetime of a project. The oil industry today enjoys massive scale advantages over wind and solar. But this advantage is now one only of incumbency and time limited.

The simple truth is that the oil industry has never before faced the kind of threat that renewable electricity and EVs pose to its business model. For the first time there is a competing energy source with a short-run marginal cost of zero, that is much cleaner environmentally and will be able to replace up to 40 per cent of global oil demand once it has the necessary scale.

The economics of energy are now on the side of the angels. This should be a flashing red light on the oil industry's dashboard.

*The writer heads sustainability research at
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Le rinnovabili portano guadagno, non solo all'ambiente e alla terra

