

According to International Renewable Energy Agency's (IRENA) Renewable Power Generation Costs in 2017 report, globally, onshore wind schemes are now costing an average of \$0.06 per kilowatt hour (kWh), although some schemes are coming in at \$0.04 per kWh, while the cost of solar PV is down to \$0.10 per kWh.

In comparison, the cost of electricity generation based on fossil fuels typically falls in a range of \$0.05 to \$0.17 per kWh.

The cost of generating power from onshore wind has fallen by around 23% since 2010 while the cost of solar photovoltaic (PV) electricity has fallen by 73% in that time.

With further price falls expected for these and other green energy options, IRENA says all renewable energy technologies should be competitive on price with fossil fuels by 2020. While onshore wind and PV solar are leading the way, other sister technologies are also becoming more competitive.

IRENA estimates that offshore wind and concentrating solar power should cost in a range of \$0.06-\$0.10 per kWh by 2020-22.

However, oil, gas and coal still account for about 86 per cent of the energy keeping the world's lights on, cars running and homes warm — a share that has barely changed in 25 years. Coal and gas-fired power plants are still being built, especially in the developing world where 1.2bn people lack electricity. We are clearly entering a transition phase, but it is clear to virtually all energy commentators that renewables are the future of power generation.

Christiana Figueres, the former UN climate chief who delivered the Paris agreement and is now convenor of Mission 2020, said:

"The economic case for renewables as the backbone of our global energy system is increasingly clear and proven. Offering ever greater bang-for-buck, renewables are quite simply the cheapest way to generate energy in an ever-growing number of countries."

The price of energy generation from solar dropped by over 50% in 2016, and continues to fall. In many parts of the world solar power is now half the price of coal power. And it's not just price that's driving demand. Price is a huge factor, but countries installing renewables are also taking step towards self-sufficiency.

They no longer have to rely on the whims of the oil-producing nations for their energy needs. The question has now switched from why would use renewables, to why wouldn't you? Even Saudi Arabia is on board. A country whose entire economy is founded on oil wealth. By 2023 it aims to developing almost 10 GW of renewable energy. This will replace the equivalent of 80,000 barrels of oil a day. And it's investing between \$30bn and \$50bn into the initiative.

In the UK, it seems like fracking could be the answer to cheap energy. But fracked oil and gas still has all the negatives environmental impact that comes with oil and gas. In fact, many people argue it's even more damaging. It uses massive amounts of water, and can cause mini-earthquakes. People also worry about the chemicals used in the process seeping into our groundwater supplies, which has happened on multiple occasions.

Even more than that, it's still a fossil fuel. It relies on thousands of years of decomposition. When you drill it, you're literally draining a reserve. And that reserve will run out one day. It's not sustainable.

What's clear is that diesel, nuclear, and coal are all higher cost than both wind and solar energy on a per kWh basis. No matter how you slice it, renewable energy is winning versus fossil fuels on economics. And there's no real fuel cost risk for renewable energy. The wind and sun are zero-cost fuel sources, unlike extracted fuels, which could conceivably spike from current levels.

Consequently, all the oil majors are investing heavily into clean energy: Total is setting itself up as a solar energy powerhouse after buying solar module maker SunPower for \$2.3bn and battery maker Saft for \$1.1bn. And Shell, Europe's biggest oil giant, created a \$1.7bn new division in 2016 to invest in renewable and low-carbon power. It has since set itself up as a world-leader in wind farms.

It's noteworthy that none of the major oil and gas companies with all their resources have made any significant investment in extraction in the Weald. Only a handful of cash-poor, AIM-listed companies have been doing so, and raising investment money based on the possibility that their may be exploitable reserves. This should speak volumes.

From an economic point of view, it should be clear that the better investment opportunities for growth are in renewables and renewable-related businesses. It's true that renewable energy isn't a guaranteed moneymaker, but now that it's competitive with fossil fuels in electricity markets, the financial future will look bright for companies making the best renewable energy technology. Maybe you're a climate change believer. Maybe you're not. Maybe you think it's all one big conspiracy. It doesn't matter. The facts are clear. The world is moving away from fossil fuel energy generation, and supporting risky extraction that may result in environmentally catastrophic consequences just seems more foolish by the day.