

The Impact of Covid and the War in Ukraine on the Energy Transition

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Recent events – the covid pandemic and the Russian invasion of Ukraine - have had a significant impact on the current “energy transition”: a switch from hydrocarbon molecules (fossil fuels) to electrons. Before these events, which kicked off in 2020 and 2022, the speed of this transition had generally been underestimated by the “energy establishment” i.e. the IEA, the OPEC Secretariat, the major oil companies and many other players in the energy markets. This underestimation was in large part due to a degree of intellectual inertia amongst the analysts and strong vested interests from those involved in fossil fuels. However, once these two events began, views began to change and there was a growing consensus that ultimately the transition might speed up. The impact of both events on the transition is outlined below.

The Covid Pandemic

The pandemic began at the start of 2020 and the initial impact, as a result of the lockdowns, was a global economic recession. This led to a collapse in oil and gas demand and a dramatic fall in the price of oil and gas. In April 2020 the price of WTI actually went negative to -\$30 per barrel! These lower prices meant there was a major fall in upstream oil investment and maintenance affecting producing capacity. For example, OPEC+ found it increasingly difficult to meet their production targets. In the summer of 2022, they were 3 million barrels per day below the overall target. However, as will be seen below, of even greater impact was a significant impact on popular expectations. There was growing concern over the reliability of supply chains and over the role of government in managing the economy. The “Washington Consensus” view of the world that argued you simply left everything to the market was seriously undermined. Increasingly, people felt governments needed to intervene more. As the pandemic appeared to recede some economies recovered and oil and gas demand began to rise. But as capacity constraints from underinvestment rose and spare capacity appeared to decline, oil prices began to rise. Into this mix came Russia’s invasion of Ukraine.

Russia’s Invasion of Ukraine

The immediate impact came from the imposition of sanctions as a counter to Russian aggression. These were aimed very much at Russian oil and gas exports. This not only created

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immediately higher oil and gas prices but also fuelled expectations of even further rises to come. This was particularly relevant in Europe which relied on Russia for around one third of its gas supplies. At the same time there was a scramble for alternative sources of oil and gas which reinforced the rapidly rising prices. This was particularly true for LNG which represented the only short term solution to consumers faced with shortages of pipelined gas. The result was that energy security of supply moved rapidly up the agenda in most oil and gas importing consuming countries especially in Europe. This was very reminiscent of the impact of the oil price shocks of the 1970s driven by political interventions in the global oil market when such energy security issues rapidly dominated government policies in consuming countries. This prompted many highly interventionist policies to save energy and use it more efficiently and to try and move away from oil. These security of supply concerns were very much reinforced by the fallout from the covid pandemic creating popular expectations that governments “should do something” about energy. Meanwhile, the scramble for alternative energy prompted a move towards greater use of coal together with delays to the reduction in the use of nuclear, notably in Europe.

At the same time, there were a number of related developments. Europe suffered massive droughts over the summer coupled with serious forest fires. The droughts in Europe had significant impacts on nuclear production highly dependent on water for cooling. Elsewhere, globally there were devastating floods leading to massive disruption and loss of life. This meant that climate change began to move back up the popular policy agenda after it had been somewhat overshadowed by the covid pandemic. This trend of concern over climate change was reinforced as the COP27 meeting in Egypt failed to produce much by way of progress. The industrialized countries continued to stall on taking serious action to address the climate emergency especially over giving serious financial assistance to vulnerable countries in terms of the “damage and cost” issues raised. At the same time, most oil companies continued to wallow in what can only be described as “greenwash” i.e. claiming to take action to reduce carbon emissions while pursuing a “business as usual” commercial strategy. This climate concern was further reinforced by growing evidence that the 1.5 degree target agreed in Glasgow was way off track.

What Next?

The covid pandemic, while receding, is far from being over. One only has to consider recent events in China where there appears to be something of a resurgence in cases. Also, to be really gloomy, it may only be a matter of time before the Omicron variant of covid is superseded by the Pi variant.

However, in the immediate term, much will depend upon what happens in Ukraine. Currently, it looks as though the war will continue for some time with no obvious winner or loser. Much will depend upon whether Western support for the Ukrainian military effort remains strong and further sanctions on Russian energy exports are imposed or whether such support begins to suffer from fatigue. It also depends upon whether the global economy suffers a major recession which looks

increasingly likely. If sanctions remain strong or become even stronger this will maintain increased pressure on oil and gas prices but if a major recession hits this should reduce prices. Higher fossil fuel price will speed the energy transition while lower prices might slow its progress. However, there will inevitably be a blip slowing the transition for a few years as energy consumers adjust to the loss of Russian oil and gas by moving to other fossil fuels. Even if sanctions on Russian energy exports fail to be effective, which would be very much in line with the history of such sanctions, consumers will be very unwilling to depend in the future upon Russian energy supplies. While the Putin regime remains in power, such supplies will always look very vulnerable in a world where, as already outlined, energy security of supply is very much back on the agenda. Renewables represent secure domestic sources of energy, especially in Europe where interconnection reduces the problems created by intermittency. The drive to greater use of renewables will be strongly reinforced as climate change continues to move back up the policy agenda following evidence of a growing climate emergency. Thus the balance of probability is that the energy transition will significantly speed up in the future after a short hiatus.

Writer's Profile

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Professor Stevens was educated as an economist and as a specialist on the Middle East at Cambridge and SOAS; 1973-1979 teaching at the American University of Beirut in Lebanon; 1979-93 at the University of Surrey. Between 1993 and 2008, he was Professor of Petroleum Policy and Economics at the University of Dundee, Scotland, a chair created by BP. He is an expert in the international petroleum industry, economic development in the Gulf and energy economics.