Evolving Energy Sector
RETHINKING THE NORMS

BY PROF. PAUL STEVENS
Distinguished Fellow, Energy, Environment and Resources, Chatham House

Energy transition is when an economy switches from one main source of energy to another. Historically, these have tended to occur at the national level and occasionally at the regional level. In the US for example, between 1865 and 1900, the energy mix switched from 80% wood-20% coal to the exact inverse. The trigger was dwindling supplies of commercial wood. There are also reinforcing factors in energy transitions usually associated with changes and advances in technology. This current energy transition is global and can be defined as a moving away from hydrocarbon molecules to electrons. The trigger is environmental concern; mainly climate change and the Paris Agreement, as well as urban air pollution. A reinforcing factor is the falling cost of renewables. The cost of solar and wind electricity generation has plummeted, as have battery costs.

Another reinforcing factor to today's transition is the rise in electric vehicle (EV) usage. With the declining price of lithium ion batteries, it might be cheaper to buy an EV than an internal combustion engine by 2025. It may also be cheaper to run it.

A third reinforcer is 'OECD disease'. In the early 1980s, the Organization for Economic Co-operation and Development (OECD) governments sought a way to raise revenue by imposing high sales taxes on oil products. This took advantage of a large tax base, very inelastic demand and a low collection cost. This caught on and now we see a lot of non-OECD governments beginning to catch the disease in China, India and other parts of Asia, particularly where demand growth for oil is expected to continue. One implication is that the price of crude oil will become increasingly irrelevant. What is going to matter is the price of the final product, which is going to rise irrespective of what happens to oil prices.

> **"A crucial date to watch this year will be May 12 when the US administration announces whether it will renew the lifting of sanctions on Iran. If not, then in effect the US will have unilaterally abrogated the nuclear agreement."**

The energy establishment is generally understating this transition. The International Energy Agency (IEA), the OPEC Secretariat, the US Energy Information Administration (EIA) and some oil companies (at least publicly) are downplaying what is going on.

So, what are the implications for the Middle East? A key issue here is when peak oil demand is likely to happen. But the question to ask is not whether or when we reach peak demand. What matters is what happens after the peak. Is it going to be a slow gentle plateau of decline or is it going to fall off the edge of the cliff?

Today's energy transition has two crucial implications for the Middle East. First, if oil demand falls quickly, there is an ever-greater need for economic diversification, albeit 45 years too late. To diversify properly, the Middle East needs to develop an effective private sector. However, the current ruling elites in the region tend to behave in a way that threatens property rights. Without secure and guaranteed property rights, the private sector will not be willing to commit on a grand scale to invest domestically and create the much-needed jobs for Middle Eastern nationals.

The increasing competition for energy market share in Asia is also going to have significant implications for the region. Competition for markets will be aggravated by geopolitical instability in the region, coupled with the continuous uncertainty over how US President Trump behaves (or misbehaves) in the region. A crucial date to watch this year will be May 12 when the US administration announces whether it will renew the lifting of sanctions on Iran. If not, then in effect the US will have unilaterally abrogated the nuclear agreement – the Joint Comprehensive Plan of Action (JCPOA). It will be very interesting to see how Iran will respond to this considering it has the capability to cause serious mischief in the region. ■

2025
As the price of lithium ion batteries slides, it might be cheaper to buy an electric vehicle than an internal combustion engine within the decade.

35
Energy transitions are not new. In just over three decades between 1865 and 1900, the US' energy portfolio of 80% wood-20% wood switched to the exact inverse.