My Article in Conservative Home — Ministers have picked the low-hanging fruit on Net Zero, and it will only get harder from here

The green revolution, led by governments and big business and informed by the green movement and decarbonising parties, is encountering consumer and political resistance as soon as it tries to get people to spend more money on replacing their transport or heating.

Voters often object to paying higher prices for fossil fuel-based ways of doing things when they are taxed, or to incurring more fines and penalties for not being green enough.

The Dutch government was thrown out of office for trying to stop farmers farming to cut rural methane and CO2; the French have demonstrated against dearer diesel; half the British refuse to have "free" smart meters.

Meanwhile, the American electorate is taking a shine in the polls to Donald Trump's belief in having more cheap oil and gas and allowing people to drive their internal-combustion-engine cars, vans and pickups; Joe Biden has intervened to get the price of petrol (gasoline) down, even though dearer gas would push more people to electric.

The sheer magnitude of the task to get to net zero means that, for governments, it will only get tougher from here. They picked the low-hanging fruit first, concentrating on closing coal power stations as they persuaded and regulated the power sector to cut its emissions and ensuring big business takes measures to curb its own appetite for fossil fuels.

Now they have to persuade the consumer voter that it is time they banished the diesel or petrol car and ripped out the gas boiler — and many people will say that whilst they accept the climate change message, but they cannot afford an electric car or a heat pump.

There are only 18 million battery-electric cars in the world out of a total of 1500 million vehicles. It tends to be the rich who buy the battery cars, as they can afford the up-market Tesla or the more expensive electric versions of other well-known brands.

Putting in a heat pump is especially costly. In an older house a lot of work has to be undertaken first to insulate to much higher standards, before the disruptive work to install the heat pump system.

Some governments are offering high subsidies to people to get over these cost problems. The Chinese have the biggest numbers of electric cars thanks to early large subsidies and considerable pressure against buying new fossil-

fuel vehicles. Norway for many years offered electric cars free of 20 per cent VAT and free of road taxes which gave them a boost there.

Yet such subsidy schemes can still leave many people unwilling as they worry about range, battery life, repair costs and ability to recharge on long journeys.

Heat pumps require even higher capital subsidies. Even so, many are reluctant. They fear big bills when they need to use plenty of electricity to keep the home warm, given the much higher prices of electricity than gas. They are concerned that on really cold days the home would not be sufficiently warm, as there would be less heat to pump successfully to its destination in the home.

There are issues with how green these preferred products are. If a person plugs in a car to recharge when there is too little wind or solar energy, a gas- or coal-fired power station has to supply the juice. That does not make the electric car green.

Such is also the case with a heat pump: on very cold still days, a lot of fossil fuel will be burned at power stations to keep the grid going.

Making the new electric car and heat pump generates a lot of carbon dioxide itself, and scrapping the old petrol car and gas boiler uses energy. The world only starts to win from your switch after many miles have been driven or many hours have passed with the heating, (assuming they are running on renewable power).

There are always problems with top-down revolutions. Governments may back the wrong technology: some of the smart meters given out free to users in the UK do not work properly and have to be replaced. It may run out of money and have to cut or end the subsidies designed to sustain the green changes; democratic governments may lose too many votes if it becomes clearer some of these changes mean paying more for such essentials as energy, transport, and heating.

Enthusiastic Greens portray a world full of wind farms where electricity is cheaper, powering homes, cars and industry. They claim energy is only dear today because oil and gas has gone up.

The truth is that today's green electricity has needed much subsidy, paid for by taxpayers, to get it introduced. Whilst the average cost of wind power has now fallen a long way from the original peaks, it still needs substantial back up power to be available from fossil fuel generators for the low-wind days, the cost of which must be added to the overall cost of wind energy.

If we are to transfer much home heating and car transport from fossil fuel to electricity, there needs to be a massive expansion of generating capacity, and of grid and cable capacity to get the power to every home.

All this requires huge outlays to put in the generators and cables, to span the pylons across the fields and place the wires on the seabed to get to offshore wind. We need better answers to how much this will cost and who will pay.

In the meantime, it is very important we keep enough generating capacity available to meet our needs on days of no wind and little sun. The other day 26 per cent of our demand was met through imported energy even though demand was quite low — and the continent, grappling with its own problems from shortages and transition, will not always have the power to supply us.