

House Magazine article on Green revolution

The world is being changed by two simultaneous revolutions. The green revolution is a hugely ambitious global government inspired project driven by international treaty, laws, targets, bans and subsidies. The digital revolution is a bottom up consumer revolution, driven by huge demand for smart phones, computer pads, online retail, downloaded entertainment, social media, business computing power and robotic assistance. The digital revolution shows what is possible when you have the consumer on your side. The Green revolution is stumbling to find the products and services that people will willingly buy as it seeks to harness sufficient private capital and spending power to add to the large sums of public and business money green transition currently relies on.

Mc Kinsey in their study reckoned the world would need to spend \$275 trillion in the years to 2050 to get to net zero. That is almost three times current annual world income and output. The sum is so large because a full green transition requires the end of most fossil fuel energy, the radical change of electricity generation, and the massive extension of electricity grids and cable systems. It means the switch over of most vehicles, planes, and ships to low or no carbon alternatives, the change of people's diet from meat to vegetable based food, big change in the way people heat their homes and cook, and the transformation of factories that currently rely on gas, coal and oil for their power. There is no way governments can afford all or most of this. It needs most homeowners to find the money to rip out the gas boiler or replace the solid fuel fire, to change their car or van and to find diets, holidays and entertainments that are light on the CO2.

So far world business has not found the Beetle or Mini of the battery car revolution to fill the parking lots of the average family. They have not produced the smartphone or ipad of the home heating world that flies off the shelves and replaces fossil fuel heaters. Governments are proceeding by trying to force or persuade people to buy products they do not want to buy, or by banning or taxing products they like until they give them up. This causes friction with many voters, and can lead to parties in government losing elections by being too bossy about green issues. The Dutch government fell in a general election when many electors thought it had gone too far in trying to rid Dutch farms of livestock for a meat diet. The French have rioted over higher fossil fuel taxes. Candidate Trump in the US is polling well on a platform of rejecting the net zero imperatives and turning to extracting larger quantities of cheap domestic oil and gas to stimulate industry and help home consumers. President Biden has carried on offering more drilling licences against the wishes of Green Democrats for fear of losing votes.

Governments treading the road to net zero are urging or nudging people to buy electric cars. Recent figures show falling sales in Europe. Tesla, the pioneer of expensive electric vehicles for the richer consumer has been forced into layoffs and scaled back production. It is cutting prices to try to widen its appeal. Many people find battery electric cars are too expensive to buy. Many are worried about the lack of range on some battery cars. Many are also concerned about the lack of charging points and the time it takes to recharge when you reach one. Some are concerned about battery life, repair costs and insurance given the impact the large battery has on the structure of the car and how central it is to the lifetime costs of the vehicle.

Some think government and business should do more to develop low and no carbon fuel for existing internal combustion engines. After all, it is generally agreed that there cannot yet be battery powered long haul jetliners so the accent there is on the production of synthetic no carbon fuel for conventional jet engines. People can produce small quantities of synthetic petrol for existing car engines, so why not scale it up and try to find the economies of scale to make it more affordable? Many people are nervous about electric cars as they expect when there are more of them governments will need to tax the electricity they use to make up for the loss of petrol and diesel duties.

Governments want people to adopt heat pumps or electric heating systems. All electric heating is usually dear to run. Heat pumps are expensive to install. Anyone in an older property may need to undertake extensive and expensive insulation and cladding of the buildings first. They may also need to change the size of the pipes and radiators to get it warm enough with heat pump energy. Some people who have adopted heat pumps complain of high electricity bills to run them. Some find it difficult to get the water and the rooms hot enough. As a result only a very small proportion of people have so far bought them. The gas boiler remains more reliable, a lot cheaper to install and may also be cheaper to run.

Democratic governments will not stay elected if they force people to buy products that are too dear or do not fit people's expectations of how they should perform. Governments should learn from the digital revolution which took off using private capital and thrives on the freely chosen wishes of billions of consumers worldwide. It did not take bans and subsidies to get so many people to buy gas boilers or cars, replacing coal fires and the horse and cart. There are many ways of creating a cleaner and greener future, but all successful ones will rest on consumer goodwill. The transition is too big and too dear for governments to carry the burden themselves.

