SONE

Supporters of Nuclear Energy

Newsletter

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Nuclear and the UK Electoral Challenge on Dec 12

It is time to get the message out!

All General Election candidates have received an open letter organised by the Nuclear Industry Association and signed by many familiar names. You can read it by clicking on the link https://bit.ly/2O3RKz7 Though it reads well, it lets the "renewables" off too lightly, I argue.

A longer essay taking a tougher line and sweeping up Greta Thunberg too

Climate Change is here. There is no room to doubt either the rising averaged temperatures around the globe or the increasing concentration of poly-atomic gases in the atmosphere. The latter began at the start of the industrial Revolution and is clearly man made. The link between the climate and these emissions is less clear but very unlikely to be coincidental. Importantly, given the various feedback effects – the melting permafrost and darkening albedo amongst others – there is no knowing how much the climate will change, whatever the level of future emissions. The oceans absorb much of the gases but the consequences for them are just as threatening as for the atmosphere.

In the short term the behaviour of the atmosphere and oceans have always fluctuated, and this variability is expected to increase with climate change. The recent exceptional wild fires in California and Australia and Typhoon Hagibis in Japan are examples.

What is anybody doing about such a threat? Greta Thunberg stamps her foot and screams but offers no solutions. Her theatrical outbursts attract the attention of many in authority evidently, but they too offer no solution. Donald Trump denies that climate change is happening. In the UK Her Majesty's Government has passed a law that emissions should cease before 2050. Such a law gives the mistaken impression that effective action is being taken. It is true that converting transport and heating to electric is a step in the right direction, but only if the primary source of the electricity is reliable and does not harm nature. In this period, the 'phoney war' of climate change, the powerful fossil fuel interests are promoting investment in the "renewables",

knowing full well that their capacity factors between 20 and 30 percent leave the remaining 70 to 80 percent to be provided by gas or even coal as backup. “That will do nicely” they may feel, for the alternative is blackout. Elsewhere speculators unfamiliar with the non-negotiable basics of science put their own and other people’s money into cold fusion, leaps in battery technology and large scale carbon capture and storage. Deceived by decades of painless technological progress they believe that with enough money and effort these challenges can be overcome.

Meanwhile Germany with its Energiewende has gone further down the wrong road than anyone else and its experiment is coming apart at the seams [1] . As a result, it is committed to costs of hundreds of billions of euros, the price of electricity there is nearly twice as much as in France, it relies on electricity imported from its neighbours, while still expanding its coal industry and running several yet-to-be-closed nuclear plants. Eventually it will come to depend, no doubt, on Russian gas imported via the new Nordstream2 pipeline. Its forest clearance programme to grow biofuels which also emit carbon dioxide when burnt has been a ‘lose-lose’ experience for nature. Altogether the German experiment has been a monumental environmental and economic failure, which deluded “Green” groups in other countries are still keen to emulate, unfortunately. Actually these “Greens” are seriously worried and, not knowing which way to turn, revert to what they see as ‘natural’ and least threatening, they think.

It should go without saying that everything in the world is natural, and the full scope of what is available is revealed in natural science. Mankind’s technology can do no more than learn how to exploit what nature offers. The full range of its offerings is what we should be teaching to all our children when they go to school. They would then learn that there are three sources of energy widely available on Earth today. [2]

- First there is the classical ‘clockwork’ world of falling and moving objects that includes wind, hydro, waves and tides. These are powered by daily sunshine and the seasonal motion of the moon. They deliver a few thousandths of a kWh per kg of mass. Seen in a different way, solar and wind offer about 300 watts per square metre. These “renewable” energy sources are weak and intermittent and were more or less abandoned when a better source was discovered.
- The energy in food and also in fossil fuels is about 10,000 times greater. The energy is not clockwork and its workings are not apparent to the naked eye. It arises from the quantum motion of electrons in the outer part of atoms and is studied in chemistry and electronics. This energy, only readily available in large quantity from fossil fuels, is the workhorse of our modern civilisation.

- Exactly the same kind of quantum motion, but now of protons and neutrons confined to the nucleus at the centre of every atom, is the source of nuclear energy. Simply because a nucleus is 100,000 times smaller than an atom, nuclear energies are typically five million times bigger than chemical energies. Reactions to, and consequences of this huge but simple factor have shaped much of modern history.

Unfortunately, children are rarely taught these simple facts about the physical world and about the beautifully simple fact that biology has evolved to protect life from exposure to nuclear radiation, as it also has to power living organisms by oxidising food. They are not taught this simple picture of nuclear energy because their teachers are not themselves familiar with it. It is unfortunate that our culture now values specialisation and the narrow knowledge of the expert. This is a quite recent turn – in the 18th and 19th Centuries, for the few who received it, education aimed to reach understanding from horizon to horizon. Today, many specialise to secure employment and then strive to defend their speciality. That leaves few with a disinterested view of a civilisation-wide task, such as that of seeing the cultural changes needed to introduce nuclear power as the accepted source for the Next Industrial Revolution. With a typical lifespan extending towards 90 and 100 years there is every reason to stop curtailing education and open the windows of learning for future generations.

Who can initiate such a change? Who might overthrow the culture of nuclear fear that was initiated during the Cold War for political purposes and is now enshrined in international bodies reporting to the United Nations? No committee can reform its terms of reference in such a way. The real and dramatic change required to point civilisation in a new direction of trust and prosperity can only come from an individual. Such an individual challenge can be initiated at the time of an election.

“One small step for man, one giant leap for mankind!”

Now, I invite you to go and challenge your chosen candidate standing for Member of Parliament in your constituency. If he or she is not prepared to engage with this challenge, please give your vote to one who is, whatever his or her political party.

[1] https://energypost.eu/germany-2021-when-fixed-feed-in-tariffs-end-how-will-renewables-fare/

[2] https://www.researchgate.net/publication/336967602_The_Next_Industrial_Revolution_A_lecture_given_to_St_Dominics_Sixth_Form_College_Harrow-on-the-Hill_London

From the World Nuclear News

GERMAN STUDY CLAIMS JAPAN NUCLEAR SHUTDOWN DID MORE HARM THAN GOOD

A new German study [IZA Institute of Labour Economics] has concluded that, while no deaths have been recorded as a direct result of the Fukushima incident in March 2011, the decision to suspend nuclear power generation resulted in increased imports of fossil fuels and higher electricity prices which in turn caused lower consumption of electricity during cold weather and more deaths. The authors have estimated that an additional 1280 deaths resulted, even more than the 1232 deaths attributed to the post-accident evacuation.

So, the "prudent" decisions taken by the Japanese Government after Fukushima, in response to media hype, resulted in some two and a half thousand extra deaths compared with none from the accident had a more rigorous risk analysis been applied.

And some SONE news

Some Members feel themselves rather cut off from the London based meetings of SONE. However the Committee has decided to experiment with holding some of its meetings online. It has now invested in a ZOOM licence for a modest sum. It is hoped that this will make it easier for Committee Members to contribute from further afield without the expense and inconvenience of travel. Anyway such a development is appropriate in the new era that we have now entered. We will report on how it goes.

ZOOM is free for small groups and short meetings. https://blog.zoom.us/ For larger groups only the host needs a licence – participants just click a link sent out as the invitation to join the meeting. We will be experimenting.

And an encouraging note on which to end the year!

If sometimes you think that SONE is too small, too insignificant and that it will never make any difference, then read this

https://fortune.com/2019/10/18/nuclear-power-crowdfunding-moltex/amp/

Moltex took the plunge first and Members of SONE helped to show that personal crowd funding can contribute. The Nay-sayers said this was unworkable, Wrong!

Best wishes for a Merry Christmas and a Happy New Year!
Wade Allison
Hon. Sec.

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