

Thursday 30 July, 9.00am BST and 4.00pm BST

Over Zoom and youtube

(Details sent to registered attendees)

## Energy in Society: Myth of Utopia with Richard Norris

The Energy Transition dominates headlines, being the intersection of climate change and economics. Covid-19 has reduced economic activity on national and global scales, and consequently has reduced our energy footprint. Clear air and a slower pace are certainly welcome, but the drop in pollution is occurring alongside failing businesses and mass unemployment.

We take energy for granted: so much so that in most people's eyes we can simply swap out fossil fuels for renewables. Not only will this solve climate-change, but it will provide cheaper energy, and in some versions millions of sustainable and well-paid jobs too.

However, this utopic vision leads to dogmatic thinking and ideological choices which will have generational impacts. The reality is that the Energy Transition is going to be vastly more complex, slower and in all probability much more expensive than mainstream reporting would lead one to believe.

It is necessary to face up to the awkward facts and understand the trade-offs that must be addressed. Not only because there is a social contract to the transition due to climate change, but because the era of cheap hydrocarbons is rapidly drawing to a close

In a world that is still 85% powered by fossil-fuels (as it was 30 years ago also), increases in the cost of primary energy will affect the cost of everything, including the build-out of renewable power.

Higher energy costs will make everyone poorer, slow or halt growth and potentially cause social unrest or worse. Ensuring an energy transition that is successful and equitable will be far more complex than turning off oil and gas.

## **Dr Richard Norris**



Dr Richard Norris has over 30 years oil and gas experience split between industry and finance.

He is currently managing director of Pandreco Energy Advisors, whose clients include IOCs, Banks, Asset Managers and Policy Centres. He writes and presents extensively on the relationship of energy, economics and society and is a Fellow of the Canadian Global Affairs Institute. Dr Norris holds an MSc in Petroleum Geology and a PhD in Petroleum Engineering both from Imperial College in London.

## **Further Reading**

- Energy: A Beginner's Guide Vaclav Smil 2017
- Energy and Civilization: A History Vaclav Smil 2017
- Sustainable Energy Without the Hot Air David JC Mac Kay 2009
- Our Renewable Future, Laying the Path for One Hundred Percent Clean Energy *Richard Heinberg & David Fridley* 2016
- Why Your World is About to Get a Whole Lot Smaller: Oil and the End of Globalization: Jeff Rubin 2009
- The Bottomless Well: The Twilight of Fuel, the Virtue of Waste, and Why We Will Never Run Out of Energy *Peter Huber* 2006
- Factfulness: Ten Reasons We're Wrong About The World And Why Things Are Better Than You *Hans Rosling* 2019
- A Question of Power: Electricity and the Wealth of Nations Robert Bryce 2020
- The "New Energy Economy": An Exercise In Magical Thinking. Mark P. Mills Report 2019 <a href="https://media4.manhattan-institute.org/sites/default/files/R-0319-MM.pdf">https://media4.manhattan-institute.org/sites/default/files/R-0319-MM.pdf</a>

## We have some upcoming virtual events coming up that maybe of interest:

-GSL Public Lecture - Getting Inside the Heads of Early Vertebrates with Sam Giles-2 September.

Register here: https://www.geolsoc.org.uk/earlyvertebrates

-Geo Poetry - 1 October.

Register here: https://www.geolsoc.org.uk/geopoetry20

-GSL Public Lecture - Lost in Translation: Why Talking About Geoscience is so difficult with Hazel Gibson - 12 October.

Register here: <a href="https://www.geolsoc.org.uk/lostintranslation">https://www.geolsoc.org.uk/lostintranslation</a>

-Mineral Resource Estimations: Recent Advances and Current Best Practice - 19 October.

Register here: https://www.geolsoc.org.uk/10-gsl-mineral-resource-estimation-2020

-GSL Public Lecture: Engaging geoscience for diplomacy - understanding Paektu volcano in North Korea with James Hammond - 9 November.

Register here: <a href="https://www.geolsoc.org.uk/understandingpaektu">https://www.geolsoc.org.uk/understandingpaektu</a>

-GSL Public Lecture: 'Reading the ground' to reduce hazards and risks in engineering projects with Andrew Hart - 3 December.

Register here: <a href="https://www.geolsoc.org.uk/readingtheground">https://www.geolsoc.org.uk/readingtheground</a>

Finally, thank you for taking part in this talk.

If you would like to find out more about all the benefits of becoming a fellow at The Geological Society <u>click here</u>. You can also find out more about our <u>Corporate Patron membership</u>.

Finally, it costs the Geological Society, which is a registered charity, over £10,000 a year to run our free events, which engage a broad audience with key themes in Earth Science. If you would like to make a donation to support this cost, if you didn't get the opportunity to do so on the day, you can <u>donate here</u>. Thank You for your generosity.