

The Week That Was: 2025 04-05 (April 5, 2025) Brought to You by SEPP (www.SEPP.org) The Science and Environmental Policy Project

Quote of the Week: *“Prediction is very difficult, especially if it's about the future!”*—Niels Bohr, Nobel laureate in Physics and father of the atomic model. [H/t Richard Lindzen]

Number of the Week: About 12 percent carbon.

THIS WEEK:

By Ken Haapala, President, Science and Environmental Policy Project (SEPP)

Scope: TWTW begins with three separate views on the nature of climate science and whether it is a physical science. The first is the comments by Richard Lindzen in a tribute to Ray Bates. The second is an essay by David Whitehouse on the noble lie. And the third is an essay by Jennifer Marohasy on her reaction to comments by a newly appointed senior manager at the Great Barrier Reef Marine Park Authority. Then discussed are the views of Andy May on plate tectonics changing Earth's climate.

A tribute to Ray Bates: On March 26, Richard Lindzen delivered to the Irish Climate Science Forum and CLINTEL a lecture titled: “Ray Bates, his Scientific Legacy and The New US Climate/Energy Politics.” The January 2024 obituary of Bates in the Irish Independent begins with:

“Professor Ray Bates, who has died aged 83 after a short illness, was a leading Irish and international meteorologist who pioneered new models for computer forecasting systems which won him an award from US space agency NASA.

The former assistant director at Met Éireann, who subsequently worked at NASA, Denmark's Niels Bohr Institute and University College, Dublin, latterly encountered opposition from scientists and climate activists over his challenge to the consensus view on the level of threat posed by climate change.”

About fourteen months later, Richard Lindzen gives a different perspective with hope for a saner future. Below is a rough transcription of Lindzen's presentation. The transcript is more a collection of thoughts than coherent essay. Lindzen's views include:

Criticism of climate science skeptics is loaded with hate.

Climate as an issue is political, not scientific.

The accepted narrative has many errors. The problem with having many targets is the critics allow the narrative to remain in place!

Among all the various errors, Ray and I shared the recognition that current views on climate were almost entirely focused on radiative properties of the tropics and inadequately considered the hydrodynamics of the extratropics. Both hydrodynamics and radiation transport heat, but hydrodynamics dominate in the extratropics.

If you are currently employed in climate you have to publish, you have to get grants, and you cannot get them if you question the narrative.

We were both trained in dynamic meteorology which is central to the theoretical understanding of both weather and climate. Heisenberg's PhD thesis was in hydrodynamic instability, which he maintained was harder to understand than Quantum Mechanics

Private groups such as ICSF, CLINTEL, etc. don't have to deal with professional pressures so there is a degree of freedom there but also a lack of familiarity with the subject. [not stated, the need to publish for advancement.]

Moreover, people like Ray and me have wanted to better understand the climate itself. This is not identical to pointing out errors; and given climate alarm is fundamentally a political rather than a scientific construct, the former activities probably deserve priority – if one's aim is to stop the extremely costly and dangerous hysteria.

However, it is no small thing for the scientific understanding of climate to have been set back a couple of generations. [The science is moving backwards] Remedying this will require that current active scientists be permitted to return to studying science rather than supporting a political narrative. Clearly, there is much to remedy.

For many years I have thought that it would help if the US government were to engage in a traditional A Team – B Team exercise wherein one side would identify the flaws in current policy and the other would defend current policy.

The problem here is that in a political issue, one has to convince the public, and it is clear that the observation by British writer, physicist and advisor to Churchill, C.P. Snow, [citing two worlds of knowledge] that the ignorance of science on the part of non-scientists (including those who are highly educated) precludes their knowing what to make of such an exercise.

In my experience, this extends to scientists and engineers whose expertise is outside of atmospheric physics. To be sure, there are important examples of individuals changing their position on climate alarm when exposed to such debates, but many individuals do not because the issues at debate are inaccessible to them.

[A good example of the former is Steve Koonin. Both sides in Koonin's debate agreed that climate change was not an existential threat. Further, Koonin changed his views following the debate.] The reports of the IPCC Working Group I, the physical science, never speaks of an existential threat. All it says is that this will be costly and may reduce the GDP by 3% from models that say it may have increased by 200% from the present. So, the net increase would only be 197% -- not horrifying.

Benny Peiser, who recently spoke to you [ICSF / CLINTEL], has long held that the pain imposed by policies will cause people to oppose the ridiculous climate policies. Sri Lanka offers an example where restrictions on fertilizer based on their contribution to greenhouse gases led to widespread starvation and an uprising. [Lindzen and Happer have a paper stating that the emissions of methane and nitrous oxide are so small compared to CO2, that the effect is tiny.] But this does not stop the control freaks.

However, President Trump has come up with a more benign approach. President Trump, his Secretary of Energy, Chris Wright, and his Administrator of the EPA, Lee Zeldin, all regard warming hysteria and its demonization of CO2 to be baseless, and are attempting to eliminate all regulations, funding and institutions based on this hypothesis.

So far so good.

A crucial start was getting rid of the “Endangerment Finding” whereby greenhouse gases could be considered dangerous “pollutants” by the EPA. This action alone eliminated numerous EPA pointless but expensive regulations.

The Supreme Court rejection of the Chevron deference has also been important: it withdraws much of the power of government agencies to demand deference to their supposed expertise.

I expect that there will be heated and hysterical opposition, but the assumption that climate alarm is canonical “truth” may well be over. The damage that climate policies have already produced is likely to diminish this opposition and open up a more honest and realist view of the subject.

As the great physicist, Niels Bohr, has noted, prediction is very hard especially when it deals with the future, but with the current Administration in the United States, there is ample reason to hope for a saner view of climate and a better outcome for the world’s people: those struggling with the increased cost of heating and driving, especially the billions who still lack adequate access to energy.

It is sad that Ray has joined many of his colleagues who have died without seeing this dénouement, but I suspect that Ray never gave up hope that this day would come.

See links under Challenging the Orthodoxy and Challenging the Orthodoxy RIP

The [Ig]Noble Lie: Writing for Net Zero Watch, physicist David Whitehouse discusses how facts are twisted to fit what Lindzen called the Narrative. The essay states:

“At what point does science reporting stop being news and become propaganda peddled by uncritical journalists who read off press releases from approved providers with no critical assessment of what they are relaying to the public? If you pay attention to how climate science is reported in the media, you will have noticed how much of it is related to climate attribution studies. This is when a particular extreme weather event is studied and then said to have been

made much worse by human climate change. Sometimes it is said to have been impossible without climate change.

Take the LA wildfires. They were made 35% more likely because of human climate change. It must be true: the BBC said so and so did almost everyone else.

The basis for this claim is an estimation of what the climate would have been without any human-induced changes. This is compared with the climate as it actually is. Then follows some statistical calculations and voilà, a result appears. The event was, say, twice as likely to have happened because of human-induced climate change.

However academically pure the initial intentions of this line of study were at its dawn about a decade ago, it has changed. Over the years, the field came to be driven by more politics, and with a desperation alien to science. It has come to symbolize media manipulation and, by some scientists, exhibits a lack of conscience. I say 'lack of conscience' because I know of scientists who see the results of climate attribution spread alarmingly across the media yet keep quiet about their distrust of the attribution procedure. Why do they do this?

The attribution studies quoted in the press come from the World Weather Attribution group (WWA), which provides quick responses to the question of whether any weather event has a human-altered climate contribution. Their contributions are not peer-reviewed – there isn't time – so they use a procedure that was previously approved via peer review. It is therefore clear that this work is not for science, it for headlines in the next day's media.

So, it was interesting to see that science YouTuber Sabine Hossenfelder has done what the BBC didn't – check the results. She found that the LA wildfires were also statistically consistent with no human-climate interference and even got one of the authors of the report to admit it.

We all make mistakes. News journalists are under pressure to produce, and the WWA certainly takes advantage of this. But there is no excuse for such blatant lack of enquiry. Some journalists have, for decades, been wedded to a particular narrative, becoming in the process what every journalist should despise – a tribe pushing untruths and not even caring to question them. They have become accomplices rather than journalists.

But what about the scientists involved? Are they happy with this manipulation? Why did that author who admitted to Sabine that the press release wasn't accurate speak up?

The noble lie

Part of the reason has recently been elucidated recently in the Conservative Woman. Professor Norman Fenton described his interaction with BBC documentary makers a decade ago after he asked some awkward questions while co-presenting a documentary on the statistics of climate change. None of his reasonable equivocations made it into the final cut, nor was he ever invited to present for the BBC again. The documentary he was involved in had a foregone conclusion, no matter what the facts. He was effectively cancelled.

It was an attitude that permeated the BBC at the time. It was something that happened to me when a BBC science editor told his colleagues not to interview me on space and astronomical matters because I was part of Nigel Lawson's climate group.

It is the dishonesty of the noble lie. Tolerate untruths to serve a greater good. *Let us not forget that extreme climate scientists and partisan journalists were there at the start of cancel culture. Almost 20 years ago, the TV documentary *The Great Global Warming Swindle* stirred up vitriol among some scientists, who then actively campaigned for a new law of scientific blasphemy, based of course on their own self-appointed judgement of what could be said. Free speech? Nah.* [Boldface added]

For the public all this debate is behind the scenes. They deserve better. Now read the BBC LA fires report again in the light of what I have written."

See link under Challenging the Orthodoxy

The IgNoble Lie Downunder. Australian scientist and diver Jennifer Marohasy has written extensively on the health of the Great Barrier Reef, which has been pronounced dead many times yet lives on. The Australian government seems determined to insist that the claims of life of the reef in a world with increasing atmospheric carbon dioxide is impossible. In a post, "Every Day is Now Fool's Day," on her blog, Marohasy writes:

"I laughed then I cried, when I heard a newly appointed senior manager at the Great Barrier Reef Marine Park Authority advocating for a low carbon economy.

*Doesn't she realize that what is visible from outer space of this massive reef ecosystem, that the Marine Park Authority is tasked with managing, is the sedimentary rock limestone. This is a vast deposit of carbon because the corals have been successfully hoarding it for some hundreds of thousands of years or at least during the interglacial warm periods. Yes. Hoarding it. The climate does change. **As global temperatures increase, the biosphere expands, and the Great Barrier Reef expands.*** [Boldface added]

The Great Barrier Reef is arguably the largest coral reef system to have ever existed on planet Earth. A coral reef is layer-upon-layer of calcium carbonate. It is not pure carbon — it is not graphite or diamond — but it is about 12 percent carbon. For sure, carbon dioxide is produced and destroyed naturally near the Earth's surface and by the oceans. Fixing it is more difficult, and mostly by biotic means the corals have managed this, especially at the Great Barrier Reef.

The joke is on us: that every day in The West the managers, administrators, and the politicians — those in positions of power — send us on meaningless errands and tell us nonsense, including this seventh wonder of the world, and including about carbon dioxide that is absolutely critical to life on Earth. Although it is only a tiny fraction of the atmosphere the corals have managed to hoard it.

Ironically, the Great Barrier Reef is in the Coral Sea, the warmest part of the vast oceans. See link under Challenging the Orthodoxy.

Changing Earth Causing Temperature Change: Writing in WUWT, Andy May presents another analysis demonstrating the importance of needing to understand plate tectonics to explain Earth's changing climate for the past 66 million years. The work is based on the work by Westerhold, *et al.* using deep sea sediments published in AAAS Science, in 2020. The Westerhold work used isolated bits of data to claim that dramatic changes in temperatures were caused by changing carbon dioxide. However, the data was presented in clumps preventing detailed analysis.

Willis Eschenbach unraveled these clumps, showing extended periods when CO₂ varied extensively, yet there was little change in temperature. Geophysicist Tom Gallagher used Eschenbach's and Westerhold's work and explained that the dramatic changes in temperature, which occurred very slowly, are better explained by plate tectonics changing ocean currents. Oceans hold far more heat than the atmosphere. Gallagher's findings were discussed in the July 15, 2023, TWTW and in subsequent TWTWs.

Andy May supports the view of Gallaher, and presents his own findings based on the Westerhold paper but without using Eschenbach's work. Also drawing on a number of other papers, May gives pictorial interpretations of the position of the continents showing that the changing continents changed the East-West flow of the Equatorial Current, resulting in the ice caps first at the South Pole and, after the closing of the Caribbean Seaway, at the North Pole. This is what Westerhold called Icehouse Earth. The conclusions of the May essay are [figures not shown here but are in the essay as well as the citations]:

“Long-term climate changes have many causes, but one of the major factors is plate tectonics and continental drift. When the continents and oceans are oriented north-south as they are today, which restricts west-east (zonal) air flow and encourages north-south (meridional) air flow, the world is colder. The opposite is the case when west-east flow is encouraged by open ocean connections in the mid- to low-latitudes as shown in figure 3.

Another major influence on long-term climate change is the Milankovitch cycles (also see here). The influence of plate tectonics on climate change is very long-term, on the order of tens of millions of years, whereas the Milankovitch cycles work on the order of hundreds of thousands of years. Shorter periods of change are normally related to changes in the Sun itself, these work on periods shorter than a few thousand years.

In the Westerhold study where the excellent data plotted in figure 1 came from, the authors noticed a strong correlation between the astronomical Milankovitch cycles of 21, 41, 100, and 405 thousand years (kyr) length and patterns in their global deep-sea d18O and d13C data [isotopes of oxygen and carbon]. Because the repeating Milankovitch astronomical cycles are computable and more reliable and accurate than any other dating technique, they used them to sequence and date the data plotted in figure 1. Their description of how this worked is in section 5 (“Astrochronology”) of their supplementary materials. For records older than 20 Ma only the longer eccentricity cycles could be used. The most prominent and stable cycle was the 405 kyr eccentricity cycle.

Westerhold, et al. conclude that their chronology is accurate to ± 100 kyrs for the Pleistocene and Eocene, ± 50 kyrs for the Oligocene, ± 10 kyrs for the Miocene and Pleistocene. This sort of accuracy is remarkable if true, and it seems reasonable given their technique.

Comparing the known Cenozoic climate changes with Scotese's plate tectonic reconstruction shows a coincidence of major climate changes with large geological events on a scale of many millions of years. Thus, it is easy, and logical, to conclude that the geological events caused the longer-term changes. I found it very encouraging that Westerhold, et al. could "see" the Milankovitch astronomical cycles in their deep-sea fossil records so clearly that they could be used for dating them. One of the biggest problems with comparing CO₂ records to temperature records is that the CO₂ records are made using different samples that must be dated separately from the temperature proxy samples. This gives me a lot more confidence in the $\delta 13\text{C}$ data in figures 1 and 2 than in the Rae, et al. data shown in figure 2. Further the prominent gaps in the Rae et al. CO₂ data leaves too much to the imagination.

*Westerhold's deep-sea $\delta 13\text{C}$ proxy is not a direct CO₂ proxy, but it can be paired directly with the $\delta 18\text{O}$ temperature proxy, and **it is continuous**. These characteristics make it superior to other CO₂ proxies in my opinion. [Boldface added]*

I should note that the exact timing of the major plate tectonic events discussed in this post is the subject of furious debate in the geological community (Hu, et al., 2016; Torfstein & Steinberg, 2020, Coates & Stallard, 2013). The precise dates when India collided with Asia, the Isthmus of Panama closed, or the North Atlantic opened to the Arctic are not known. They occurred over millions of years and different geological studies can reasonably provide different dates depending upon the data used. Thus, the dates given in this study are just based on my best judgement and are open for debate."

See link under Challenging the Orthodoxy and the July 15, 2023, TWTW

<https://www.sepp.org/twtwfiles/2023/TWTW%207-15-23.pdf>

SEPP'S APRIL FOOLS AWARD – THE JACKSON

It is time for voting on the Annual SEPP's April Fools Award – the Jackson. The grand prize is a large lump of coal. Last year, the deserving winner of the lump of coal was the US National Science Teaching Association. In 2023, the Association banned the CO₂ Coalition from its meeting which the Coalition members paid for and were approved because the CO₂ Coalition exhibit pointed out that CO₂ is essential for photosynthesis which is the food source of all complex life on Earth.

Get your votes in by June 29, the award will be given at the 43rd annual meeting of the Doctors for Defensive Preparedness on July 5-6. The decision of the judges is final.

About 12 percent carbon: Jennifer Marohasy states above that coral reefs are about 12% carbon. The reefs are made up of calcium carbonate (limestone) which has a chemical formula of CaCO₃. Calcium has an atomic weight of about 40, carbon about 12, and three oxygen atoms of about 48. The atomic weight of calcium carbonate is about 100 and carbon makes up about 12%

of that. Apparently, such arithmetic is too complex for the new senior manager at the Great Barrier Reef Marine Park Authority and the politicians who appointed her. Since carbon is used as a euphemism for carbon dioxide, eliminating CO₂ from CaCO₃ eliminates 44 percent of its molecular weight.

NEWS YOU CAN USE:

Challenging the Orthodoxy -- NIPCC

Climate Change Reconsidered II: Physical Science

Idso, Carter, and Singer, Lead Authors/Editors, Nongovernmental International Panel on Climate Change (NIPCC), 2013

<https://www.heartland.org/media-library/pdfs/CCR-II/CCR-II-Full.pdf>

Summary: https://www.heartland.org/_template-assets/documents/CCR/CCR-II/Summary-for-Policymakers.pdf

Climate Change Reconsidered II: Biological Impacts

Idso, Idso, Carter, and Singer, Lead Authors/Editors, Nongovernmental International Panel on Climate Change (NIPCC), 2014

<http://climatechangereconsidered.org/climate-change-reconsidered-ii-biological-impacts/>

Climate Change Reconsidered II: Fossil Fuels

By Multiple Authors, Bezdek, Idso, Legates, and Singer eds., Nongovernmental International Panel on Climate Change, April 2019

<http://climatechangereconsidered.org/climate-change-reconsidered-ii-fossil-fuels/>

Why Scientists Disagree About Global Warming

The NIPCC Report on the Scientific Consensus

By Craig D. Idso, Robert M. Carter, and S. Fred Singer, Nongovernmental International Panel on Climate Change (NIPCC), Nov 23, 2015

<http://climatechangereconsidered.org/why-scientists-disagree-about-global-warming/>

Nature, Not Human Activity, Rules the Climate

S. Fred Singer, Editor, NIPCC, 2008

http://www.sepp.org/publications/nipcc_final.pdf

Challenging the Orthodoxy – Radiation Transfer

The Role of Greenhouse Gases in Energy Transfer in the Earth's Atmosphere

By W.A. van Wijngaarden and W. Happer, Preprint, Mar 3, 2023

<https://co2coalition.org/wp-content/uploads/2023/11/The-Role-of-Greenhouse-Gases-in-Energy-Transfer-in-the-Earths-Atmosphere.pdf>

Dependence of Earth's Thermal Radiation on Five Most Abundant Greenhouse Gases

By W.A. van Wijngaarden and W. Happer, Preprint, December 22, 2020

<https://wvanwijngaarden.info.yorku.ca/files/2020/12/WThermal-Radiationf.pdf?x45936>

Radiation Transport in Clouds

By W.A. van Wijngaarden and W. Happer, *Klimarealistene*, Science of Climate Change, January 2025

<https://scienceofclimatechange.org/wp-content/uploads/SCC-2025-vWijngaarden-Happer.pdf>

Challenging the Orthodoxy

“Ray Bates, his Scientific Legacy and The new US Climate/Energy Politics”

By Richard Lindzen, ICSF and Clintel, Mar 26, 2025 [H/t Jim O’Brian]

https://www.youtube.com/watch?v=h1lbbRyE_9I

Transcribed by Climate & Energy Realists of Australia

Climate change and the noble lie

By David Whitehouse, Net Zero Watch, Apr 2, 2025

<https://www.netzerowatch.com/all-news/climate-attribution-noble-lie>

Every Day is Now Fool’s Day

By Jennifer Marohasy, Her Blog, Apr 1, 2025

<https://jennifermarohasy.com/2025/04/every-day-is-now-fools-day/>

I laughed then I cried, when I heard a newly appointed senior manager at the Great Barrier Reef Marine Park Authority advocating for a low carbon economy.

Plate Tectonics and Climate during the Cenozoic

By Andy May, WUWT, Mar 30, 2025

<https://wattsupwiththat.com/2025/03/30/plate-tectonics-and-climate-during-the-cenozoic/>

Is Climate Change Real? Short Answer: Yes — But It’s Complicated.

By Anthony Watts, WUWT, Apr 4, 2025

<https://wattsupwiththat.com/2025/04/04/is-climate-change-real-short-answer-yes-but-its-complicated/>

Bottom Line

Yes, the climate is changing. It always has. The idea that global climate must be unchanging is simply wrongheaded. The real issue is **how much of today’s change is due to human activity, how reliable our predictions are, and whether proposed policy responses are justified** — or likely to do more harm than good. [Boldface in original]

How Gullible Are We?

By Jim Steele, Mar 28, 2025 [H/t Thomas Droplet]

<https://www.youtube.com/watch?v=NP7MYf0T9VY>

Video

Challenging the Orthodoxy RIP

Obituary: Ray Bates, leading meteorologist whose views on scale of climate change threat sparked controversy

By Lorna Siggins, Irish Independent, Jan 27, 2024

<https://www.independent.ie/news/obituary-ray-bates-leading-meteorologist-whose-views-on-scale-of-climate-change-threat-sparked-controversy/a805425995.html>

Defending the Orthodoxy

Climate crisis on track to destroy capitalism, warns top insurer

By Paul Homewood, Not a Lot of People Know This, Apr 4, 2025

<https://notalotofpeopleknowthat.wordpress.com/2025/04/04/climate-crisis-on-track-to-destroy-capitalism-warns-top-insurer/#more-86375>

Beware insurers wanting to increase premiums!

But what better way to push up premiums than to play the climate card.

Defending the Orthodoxy – Bandwagon Science

New Research Links Global Warming to China

By Micah McCartney, Newsweek, Apr 3, 2025

<https://www.newsweek.com/china-air-pollution-policy-global-warning-research-2054707>

Link to press release: **China's aerosol cleanup has contributed strongly to the recent acceleration in global warming**

By Laura Wilcox, et al., CICERO Center for International Climate Research, Feb 19, 2025

<https://assets-eu.researchsquare.com/files/rs-6005409/v1/7ebf564c-2121-48b1-a668-65e2b0d1f787.pdf?c=1742998132>

Link to paper: **China's aerosol cleanup has contributed strongly to the recent acceleration in global warming**

By Bjørn Samset, et al., (23 authors) Researchgate, February 2025 [H/t Dennis Ambler]

https://www.researchgate.net/publication/390261569_China's_aerosol_cleanup_has_contributed_strongly_to_the_recent_acceleration_in_global_warming

From the abstract: Here we show, using a large set of simulations from eight Earth System Models, how a time evolving 75% reduction in Chinese sulfate emissions partially unmask greenhouse driven warming and influences the pattern of surface temperature change.

From article: According to [lead author] Samset, China's cleanup has likely added about **0.05°C (0.09°F)** to the global temperature increase per decade and contributed 0.07°C of total warming since 1850. "When we started looking at the numbers, it turns out it is definitely macroscopic—it's not a small effect,"

[SEPP Comment: How was global temperature measured to one-hundreds of a degree precision in the decade of 1850-1860?]

New insights into sea-level rise since the last ice age

By Staff, Hydro International, April 1, 2025 [H/t Dennis Ambler]

<https://www.hydro-international.com/content/news/new-insights-into-sea-level-rise-since-the-last-ice-age>

[SEPP Comment: Another IPCC hockey-stick; the models used by the IPCC overestimate atmospheric temperatures today, why assume they will be correct 200 years from now?]

Questioning the Orthodoxy

Precisely approximate

By John Robson, Climate Discussion Nexus, Apr 2, 2025

<https://climatediscussionnexus.com/2025/04/02/precisely-approximate/>

Link to: **Adjusting Reality**

By Matthew Wielicki, Irrational Fear, Mar 26, 2025

<https://irrationalfear.substack.com/p/adjusting-reality>

One of the flags of pseudoscience, and not only on climate, is a spurious degree of precision in output claims and a lack of curiosity about input data.

Examining the Global Carbon Project's Estimates of CO2 Sources and Sinks, 1959-2023

By Roy Spencer, His Blog, Mar 30, 2025

<https://www.drroyspencer.com/2025/03/examining-the-global-carbon-projects-estimates-of-co2-sources-and-sinks-1959-2023/>

(Now, some researchers believe that an average of all estimates will be better than any individual estimates. I don't believe that... and neither should you. As a simple example, you can't make a better estimate of something by averaging a good estimate with a bad estimate.)

Tidbits

By John Robson, Climate Discussion Nexus, Apr 2, 2025

<https://climatediscussionnexus.com/2025/04/02/tidbits-104/>

...UN "Gates of Hell" Secretary-General António Guterres burbling "Renewable energy is powering down the fossil fuel age. Record-breaking growth is creating jobs, lowering energy bills and cleaning our air. But the shift to clean energy must be faster and fairer." Yeah. And it would be nice if it also delivered clean reliable energy and jobs instead of deindustrializing chumps like Europe while China roars ahead with coal. Meanwhile, can somebody please change the channel?

Cherry Blossoms, Concrete Jungles and Climatic Exaggerations

By Vijay Jayaraj, CO2 Coalition, Apr 2, 2025

<https://co2coalition.org/2025/04/02/cherry-blossoms-concrete-jungles-and-climatic-exaggerations/>

Link to paper: **Urban warming in Japanese cities and its relation to climate change monitoring**

By Fumiaki Fujibe, International Journal of Climatology, Jan 20, 2011

<https://rmets.onlinelibrary.wiley.com/doi/abs/10.1002/joc.2142>

From the abstract: An analysis using data from the dense Automated Meteorological Data Acquisition System network has shown that an urban bias in recent temperature trends is detectable not only in densely inhabited areas but also at slightly urbanized sites with 100–300 people km⁻², indicating the need for careful assessment of the background climate change. There is also some evidence of microscale effects on observed temperature, as revealed by an analysis of the relationship between trends in temperature and wind speed.

Energy & Environmental Review: March 31, 2025

By John Droz, Jr., Master Resource, Mar 31, 2025

<https://www.masterresource.org/alliance-for-wise-energy-decisions/energy-environmental-review-03-31-2025/>

After Paris!

Global Bankers: The Paris Climate Accord is Dead

By Eric Worrall, WUWT, Apr 4, 2025

<https://wattsupwiththat.com/2025/04/04/global-bankers-the-paris-climate-accord-is-dead/>

Social Benefits of Carbon Dioxide

Effect of rising CO2 levels on Cucumis Sativus L. aka garden cucumber

By John Robson, Climate Discussion Nexus, Apr 2, 2025

<https://climatediscussionnexus.com/2025/04/02/effect-of-rising-co2-levels-on-cucumis-sativus-l-aka-garden-cucumber/>

From the CO2Science Archive.

Problems in the Orthodoxy

US Military Exits Climate Change After Wasteful Decade

By Steve Goreham, Master Resource, Apr 2, 2025

<https://www.masterresource.org/goreham-steve/us-military-exits-climate-change/>

The Navy began climate change programs more than a decade ago during the administration of President Barack Obama. In 2011, US Secretary of the Navy Ray Mabus stated, “By no later than 2020, at least half of the energy that the navy uses, both afloat and ashore, will come from non-fossil fuel sources.” The Great Green Fleet initiative was a key part of this effort.

By the end of 2017, the Navy had spent \$57 billion on green fuel programs. The electric-drive destroyer program was cancelled in 2018. By 2022, except for nuclear-powered ships, more than 99 percent of the US Navy’s fuel still came from petroleum.

But the Biden Administration urged the navy to double down on climate change objectives. The Navy issued its Climate Action 2030 plan in May of 2022, pursuing a “department-wide pathway to net-zero by 2050.”

New NASA Chief Will Wind Down Climate Alarm Shop

By Larry Bell, Newsmax, Apr 2, 2025

<https://www.newsmax.com/larrybell/nasa-climate-change-doge/2025/04/02/id/1205361/>

[SEPP Comment: NASA-GISS is entrenched with Columbia University. Previous NASA administrators chose to ignore its reports although Hal Doiron and other top NASA scientists who demonstrated that NASA-GISS reports were contrary to physical evidence. Now that Columbia University has changed, will NASA-GISS depart?]

Seeking a Common Ground

When Hackers Target the Grid The unseen threat to your energy supply

By Lars Schernikau, WUWT, Apr 4, 2025

<https://wattsupwiththat.com/2025/04/04/when-hackers-target-the-gridthe-unseen-threat-to-your-energy-supply/>

Link to: **Cyber Security and critical infrastructure**

By Lars Schernikau, The Unpopular Truth, Accessed Apr 4, 2025

<https://unpopular-truth.com/2025/03/22/cyber-security-and-critical-infrastructure/>

Measurement Issues -- Surface

Some welcome caution about how little we understand the past

By John Robson, Climate Discussion Nexus, Apr 2, 2025

<https://climatediscussionnexus.com/2025/04/02/some-welcome-caution-about-how-little-we-understand-the-past/>

Link to paper: **The IPCC’s reductive Common Era temperature history**

By Jan Esper, et al., Nature, Communications Earth & Environment, Apr 25, 2024

<https://www.nature.com/articles/s43247-024-01371-1>

From Robson: Esper and co. do offer some comments about the way proxy records like tree rings miss important detail over time which makes it hard to compare to modern temperature records. But for a proper deep dive into that subject, you'll have to wait for next week.

Measurement Issues -- Atmosphere

UAH v6.1 Global Temperature Update for March, 2025: +0.58 deg. C

By Roy Spencer, His Blog, Apr 3, 2025

<https://www.drroyspencer.com/2025/04/uah-v6-1-global-temperature-update-for-march-2025-0-58-deg-c/>

The Version 6.1 global area-averaged linear temperature trend (January 1979 through March 2025) remains at +0.15 deg/ C/decade [+0.27 deg/F/decade] (+0.22 C/decade over land, +0.13 C/decade over oceans).

Passive acoustic measurements of air temperature at various altitudes

Yan Yue, et al., The Journal of the Acoustical Society of America, Feb 19, 2025 [H/t Bernie Kepshire]

<https://pubs.aip.org/asa/jasa/article-abstract/157/2/1290/3336358/Passive-acoustic-measurements-of-air-temperature?redirectedFrom=fulltext>

Changing Weather

April 1 Special: The Initiation of UW ClimateLab Reports

By Cliff Mass, Weather Blog, Apr 1, 2025

<https://cliffmass.blogspot.com/2025/04/april-1-special-initiation-of-uw.html>

Virtually all stations in Washington State without urbanization or other issues are similar. Extreme springtime highs are not going anywhere, and precipitation is modest. Average highs have gone up about 2°F in 75 years, without acceleration of the warming.

April 1 Water Status

By Cliff Mass, Weather Blog, Mar 30, 2025

<https://cliffmass.blogspot.com/2025/03/april-1-water-status.html>

Bottom Line

I wish I could provide you with a dramatic story, but the wet reality of this winter is quite normal and typical, with some places being a bit wetter and drier than normal.

As Colorado River declines, states are failing to tap an alternate resource

By Sharon Udasin, The Hill, Apr 2025

<https://thehill.com/policy/energy-environment/5226279-as-colorado-river-declines-states-are-failing-to-tap-an-alternate-resource/>

Link to report: **Can water reuse save the Colorado?**

An analysis of wastewater recycling in the Colorado River Basin states

By Noah Garrison, et al., supported by Natural Resources Defense Council, 2025

<https://www.ioes.ucla.edu/wp-content/uploads/2025/03/Water-Reuse-Report.pdf>

From the article: Arizona and Nevada, which both recycle more than half of their wastewater, stand out among the other five — California, Colorado, Utah, New Mexico and Wyoming — all of which reuse less than a quarter of their wastewater, the report determined.

[SEPP Comment: The report calls for the EPA to intercede. Yet, the Colorado River Compact is among States which Congress approved and the President approved it in 1929. It allocates use of water, not use of wastewater. What gives EPA the power to intercede?]

Ancient European floods were much worse than anything in the last century

By Jo Nova, Her Blog, Apr 2, 2025

<https://joannenova.com.au/2025/04/ancient-european-floods-were-much-worse-than-anything-in-the-last-century/>

Link to paper: **Robust climate attribution of modern floods needs palaeoflood science**

By Stephan Harrison, et al., Climate Change, Mar 26, 2025

<https://link.springer.com/article/10.1007/s10584-025-03904-9>

From the abstract: We show that flood magnitude was significantly higher before the 20th century, despite there being a negligible greenhouse gas contribution from humans, which means that natural variability might be significantly higher than assumed by climate modelers. This has profound implications for flood planning and climate adaptation policy, as many recent floods cannot be viewed as unprecedented, even in the historical record.

Study: Ancient Megafloods Dwarf Today's Extremes — But You Won't Hear That on the Evening News

By Anthony Watts, WUWT, Apr 4, 2025

<https://wattsupwiththat.com/2025/04/04/study-ancient-megafloods-dwarf-todays-extremes-but-you-wont-hear-that-on-the-evening-news/>

Changing Climate

Cenozoic evolution of deep ocean temperature from clumped isotope thermometry

By A.N. Merkle, et al., AAAS Science, June 30, 2022

<https://www.science.org/doi/10.1126/science.abk0604>

How survivors spanned the globe after Earth's biggest mass extinction

By Adam Hadhazy for Stanford News, Stanford CA (SPX) Mar 30, 2025

https://www.terraviva.com/reports/How_survivors_spanned_the_globe_after_Earths_biggest_mass_extinction_999.html

Link to paper: **Physiology and climate change explain unusually high similarity across marine communities after end-Permian mass extinction**

By Jood A. Al Asward, et al., AAAS Science, Mar 26, 2025

<https://www.science.org/doi/10.1126/sciadv.adr4199>

[SEPP Comment: The Permian-Triassic was likely caused by massive volcanic eruptions in Siberia forming the Siberian Traps. The eruption released enormous amounts of carbon dioxide which form carbonic acid, a weak acid, when dissolved in water; and sulfur dioxide and hydrogen sulfide which form sulfuric acid, a strong acid. The paper foolishly attempts to compare the event with humans emitting only carbon dioxide. Yet, it asserts bivalves (clams and oysters) and gastropods (snails and slugs) expanded. The paper contradicts claims that carbon dioxide-caused ocean acidification will cause the death of shellfish such as bivalves and

*gastropods. Further comment by Howard Hayden: “Peter D. Ward (Yale), in his book **Gorgon**, was in the Karoo (So. Africa) working at the boundary at the Permian Extinction. Unable to make any sense of what was there—How come the oxygen concentration plummeted? — he sat pondering stuff and he looked across the valley at the boundary layer on the other side. Below the boundary, the soil was white; above it, the soil was red. Aha! Oxidation. And it’s all because of the Siberian Traps. When I read his book, I sent him an email (never answered) that most oxidation results in whitish color; consider SiO₂, MgO₂ and others. What is uniquely red is rust. The Siberian traps spewed iron which rusted in the air and reduced O₂ concentration.”]*

Changing Climate – Cultures & Civilizations

New insights reveal how social dynamics drove the rise of agriculture

By Sophie Jenkins. London, UK (SPX) Apr 01, 2025

https://www.terraviva.com/reports/New_insights_reveal_how_social_dynamics_drove_the_rise_of_agriculture_999.html

Link to paper: **Demographic interactions between the last hunter-gatherers and the first farmers**

By Alfredo Cortell-Nicolau, et al., PNAS, Mar 31, 2025

<https://www.pnas.org/doi/10.1073/pnas.2416221122>

From abstract: Demographic interaction processes play a pivotal role during episodes of cultural diffusion between different populations, particularly when these episodes can lead to competition for the same resources and geographic space. The diffusion of farming is one prototypical case within this broader scenario, where groups of incumbent hunter-gatherers occupied a space which would later be claimed by expanding farmers. In this work, we tackle such processes through a two-population mathematical model, where farmers and foragers compete and interact in the same geographic space.

Changing Seas

#LookItUp: NOAA sea level records

By John Robson, Climate Discussion Nexus, Apr 2, 2025

<https://climatediscussionnexus.com/2025/04/02/lookitup-noaa-sea-level-records/>

Link to: **Relative Sea Level Trends**

By Staff, NOAA Tides & Currents, Accessed Apr 2, 2025

<https://tidesandcurrents.noaa.gov/sltrends/sltrends.html>

Changing Cryosphere – Land / Sea Ice

Arctic Ice March Maximum 2025 in Perspective

By Ron Clutz, His Blog, Apr 1, 2025

<https://rclutz.com/2025/04/01/arctic-ice-march-maximum-2025-in-perspective/>

[SEPP Comment: According to a graph, March 2025 had the lowest March Average Arctic Sea Ice Extent since records began in 2007. March 2024 was higher than any since 2014]

Scientists ‘Unexpectedly’ Find The Declining Sea Ice Trend Since 1980 Has Radiatively Cooled The Earth

By Kenneth Richard, No Tricks Zone, Mar 31, 2025

<https://notrickszone.com/2025/03/31/scientists-unexpectedly-find-the-declining-sea-ice-trend-since-1980-has-radiatively-cooled-the-earth/>

Link to paper: **Sea ice pattern effect on Earth's energy budget is characterized by hemispheric asymmetry**

By Chen Zhou, et al., AAAS Science Advances, Feb 28, 2025

<https://www.science.org/doi/pdf/10.1126/sciadv.adr4248>

Changing Earth

The January 2022 Hunga eruption cooled the southern hemisphere in 2022 and 2023

By Ashok Kumar Gupta, et al., Nature, Communications Earth & Environment, March 27, 2025

[H/t Bernie Kepshire]

<https://www.nature.com/articles/s43247-025-02181-9>

New Study: Corals Thrived When Global Sea Levels Were Meters Higher Than Today 6000 Years Ago

By Kenneth Richard, No Tricks Zone, Apr 3, 2025

<https://notrickszone.com/2025/04/03/new-study-corals-thrived-when-global-sea-levels-were-meters-higher-than-today-6000-years-ago/>

Link to paper: **Late Holocene “Turn-Off” of Coral Reef Growth in the Northern Red Sea and Implications for a Sea-Level Fall**

By B. Feldman, et al., Global Change Biology, 2025

<https://onlinelibrary.wiley.com/doi/pdf/10.1111/gcb.70073>

From the abstract: The results are evaluated in the context of a potential sea-level drop and the resilience of coral communities to perturbations of this magnitude. We conclude that the hiatus at this site is due to a combination of factors, including tectonic activity and glacio-eustatic sea-level changes.

[SEPP Comment: The study area is the Gulf of Eilat/Aqaba, northern Red Sea, which is not geologically stable. It is part of the Dead Sea Transform (Dead Sea Rift), a major fault system that runs from southeastern Turkey to the north end of the Red Sea.]

Quantification of low-temperature gas emissions reveals CO2 flux underestimates at Soufrière Hills volcano, Montserrat

By Alexander Riddell, et al., AAAS Science Advances, Apr 2, 2025 [H/t Bernie Kepshire]

<https://www.science.org/doi/10.1126/sciadv.ads8864>

Agriculture Issues & Fear of Famine

Trump's Climate Policy Shift Could Save American Farmers from Disaster

By Vijay Jayaraj, CO2 Coalition, Mar 31, 2025

<https://co2coalition.org/2025/03/31/trumps-climate-policy-shift-could-save-american-farmers-from-disaster/>

The USDA targets greenhouse gas emissions under the Climate Smart Agriculture and Forestry program. These initiatives include forcing U.S. farmers to employ lower-pressure irrigation systems to decrease fossil fuel energy use. Other measures are aimed at manipulating the quantity and quality of dietary nutrients to reduce methane emissions from animal digestive tracts. It was probably just a matter of time before critically important nitrogen fertilizers were targeted as a source of greenhouse gas emissions — as they have been in some other countries.

By contrast, countries such as China and India have prioritized productivity and food security over such practices. [Boldface added]

Lowering Standards

Refresher: Of Public Records Requests and Double-standards

By Staff, Government Accountability & Oversight, Mar 15, 2025

<https://govoversight.org/refresher-of-public-records-requests-and-double-standards/>

Possibly the media could see the story better if it was not sitting so close?

First, we would be remiss to not tip our cap to the original inspiration for such records requests about the activities of academics. The public record is quite clear that the FOIA requests sent years ago to the University of Virginia seeking records of the (now recently sanctioned) star of ClimateGate simply mimicked Greenpeace, which had similarly submitted requests covering two UVA professors *who the climate activists didn't like*, Profs. Fred Singer and Pat Michaels.

Those requests were good. FOIA good. *Noble. Virtuous... NYT use FOIA!*

Role of Climate Change in LA Wildfires “Not Statistically Significant”, Says Report Author

By Chris Morrison, The Daily Sceptic, Apr 1, 2025

<https://dailysceptic.org/2025/04/01/role-of-climate-change-in-la-wildfires-not-statistically-significant-says-report-author/>

Climate change was a major factor behind the recent Los Angeles wildfires, reported Matt McGrath of the BBC last January. **According to a ‘scientific study’ instantly produced by World Weather Attribution (WWA), the prevailing weather conditions were made about 35% more likely due to humans using hydrocarbons.**

Timed to make next day headlines, WWA weather attributions are not peer-reviewed.

However, the studies follow established methods which it is claimed have been “peer-reviewed and assessed as scientifically reliable”. How comforting to discover that the peer-review claim links to a paper written by none other than Dr Otto along with numerous authors from the Royal Netherlands Meteorological Institute and the Red Cross Crescent Climate Centre. [Boldface added]

Communicating Better to the Public – Use Yellow (Green) Journalism?

False, Barron's and Deutsche Welle, Climate Change Isn't Endangering Mongolian Herding

By H. Sterling Burnett, Climate Realism, Apr 1, 2025

<https://climaterealism.com/2025/04/false-barrons-and-deutsche-welle-climate-change-isnt-endangering-mongolian-herding/>

No Climate Mayday in Madras: Reconsidering Doomsday Narratives

By Vijay Jayaraj, CO2 Coalition, Mar 28, 2025

<https://co2coalition.org/2025/03/28/no-climate-mayday-in-madras-reconsidering-doomsday-narratives/>

My escape was only possible because I had been tracking the movement of a cyclone that had brought the deluge. That flood was not unusual. Once known for its light cotton fabric designs known by the Madras name and most popular in the 1960s, Chennai since has gained notoriety for frequent flooding.

In other articles, I have analyzed how recent floods in Chennai are not attributable to anthropogenic global warming, as some suggest, but rather to poor urban planning that has

resulted in inadequate rainwater drainage and construction in areas that had naturally retained water.

Communicating Better to the Public – Make things up.

Massive Thailand-Myanmar Quake Triggered By The Climate Crisis, Suggests Former Green Party Leader

By P Gosselin, No Tricks Zone, Mar 30, 2025

<https://notrickszone.com/2025/03/30/massive-thailand-myanmar-quake-triggered-by-the-climate-crisis-suggests-former-green-party-leader/>

[SEPP Comment: CO₂, the mighty molecule, makes Earth tremble?]

Oh no, not another one

By John Robson, Climate Discussion Nexus, Apr 2, 2025

<https://climatediscussionnexus.com/2025/04/02/oh-no-not-another-one/>

The latter story is classic Fox Weather clickbait as you battle through repetitive slides that gush stuff like:

“NOAA’s new climate models are a significant leap forward in climate science. Utilizing vast amounts of data collected from satellites, ocean buoys, and ground stations, these models aim to predict climate patterns with greater accuracy.”

Yes, and we aim to be taller and better-looking. How’s it going so far?

“Scientists have created a climate model to study potential scenarios for the next 1,000 years. The research results indicate that even with moderate greenhouse gas emissions, there is a 10 percent risk that Earth’s temperature will rise by 7°C over the next 200 years.”

Scientists’ warning on fossil fuels

By Shaye Wolf, et al., Oxford Open Climate Change, Mar 31, 2025 [H/t Bernie Kepshire]

<https://academic.oup.com/oocc/article/5/1/kgaf011/8099165?login=false>

Abstract begins: The evidence is clear that fossil fuels—and the fossil fuel industry and its enablers—are driving a multitude of interlinked crises that jeopardize the breadth and stability of life on Earth. Every stage of the fossil fuel life cycle—extraction, processing, transport, and combustion or conversion to petrochemical products—emits planet-heating greenhouse gases and health-harming pollutants, in addition to causing widespread environmental degradation. We reviewed the vast scientific evidence showing that fossil fuels and the fossil fuel industry are the root cause of the climate crisis, harm public health, worsen environmental injustice, accelerate biodiversity extinction, and fuel the petrochemical pollution crisis. Fossil fuels are responsible for millions of premature deaths, trillions of dollars in damages, and the escalating disruption of ecosystems, threatening people, wildlife, and a livable future.

Communicating Better to the Public – Do a Poll?

We may soon be out of business

By John Robson, Climate Discussion Nexus, Apr 2, 2025

<https://climatediscussionnexus.com/2025/04/02/we-may-soon-be-out-of-business/>

We have long believed, and said, that people tell pollsters they’re worried about climate change because they know they’re supposed to and there’s no cost to sending up that particular little wisp of virtue signal, but that when you ask them how much they’ll pay even in theory, and

especially if you actually ask them to pay it, you discover that they vote with their dollars that there's no problem.

Almost 40 percent of Americans report facing extreme weather: Survey

By Rachel Frazin, The Hill, Apr 1, 2025

<https://thehill.com/policy/energy-environment/5224452-almost-40-percent-of-americans-report-facing-extreme-weather-survey/>

Gallup found that 37 percent of Americans experienced extreme weather over the past two years, up from 33 percent in prior surveys.

[SEPP Comment: No link to the poll, how does it compare with polls during the Dust Bowl era?]

Communicating Better to the Public – Use Propaganda

How I was used by the BBC's climate change zealots

By Norman Fenton, The Conservative Woman, Mar 20, 2025 [H/t David Whitehouse]

<https://www.conservativewoman.co.uk/climate-change-by-numbers-10-years-on/>

After the program went out, I found out that this same professor had recently published a paper where he essentially contradicted the claim that he had scripted for me. So, I called him up and asked him about it. What do you think his response was: "We all have to lie for the greater good". Even worse, when I recounted this story to other academics, instead of being horrified most were in total support of what the prof said.

Great Barrier Reef Corals Are Growing And Thriving...Earlier Damage Not Climate Related

By P Gosselin, No Tricks Zone, Apr 2, 2025

<https://notrickszone.com/2025/04/02/great-barrier-reef-corals-are-growing-and-thriving-earlier-damage-not-climate-related/>

Questioning European Green

Even the EU, the motherlode of climate action, backs away from Climate Plans

By Jo Nova, Her Blog, Apr 1, 2025

<https://joannenova.com.au/2025/04/even-the-eu-the-motherlode-of-climate-action-backs-away-from-climate-targets/>

The EU wants to keep their target while exploring every possible option not to keep it. They're contemplating a "nonlinear" path, meaning, a much slower approach now, while they think up excuses to bail out later.

So much for that energy transition

By John Robson, Climate Discussion Nexus, Apr 2, 2025

<https://climatediscussionnexus.com/2025/04/02/so-much-for-that-energy-transition/>

Now here's a headline to brighten your morning or ruin it depending on your general view of climate. "BP shuns renewables in return to oil and gas". From the *BBC* no less. And why would they do such a thing? Well, "Go woke, go broke" works on environmental policy too, for firms as for governments. And the former lose their own money... or don't if they come to their senses.

Meanwhile the British government is still committed to Net Zero even as everything falls apart including the end of steelmaking in the birthplace of the industrial revolution (how's that going

to help you bolster your defense capabilities in an uncertain world?) and the Adam Smith Institute says that this week’s budget-like “Financial Statement” from the Labor green zealots in power “looks like a polite suggestion to close the door when you leave the country – if you can find a functioning airport.”

Questioning Green Elsewhere

The Energy Transition's Global Shipping Challenge

By G. Allen Brooks, Real Clear Energy, April 03, 2025

https://www.realclearenergy.org/articles/2025/04/03/the_energy_transitions_global_shipping_challenge_1101826.html

WA’s [Western Australia’s] Green Firebugs

By Roger Underwood, Quadrant Online, Apr 2, 2025

<https://quadrant.org.au/news-opinions/doomed-planet/was-green-firebugs/>

The proposal by green activists and academics to abandon the fuel reduction burning program in WA and adopt a response-only system highlights their profound ignorance of bushfire science and operations. It also exposes their lack of experience in the control of forest fires burning in heavy fuels on a bad day. They have no conception of the insuperable challenges of multiple, simultaneous ignitions, nor any appreciation of the difference it makes to be able to fight fires in light, rather than heavy fuels. They propose the shutdown of a system that works and to replace it with one that will not.

In short, they are living in a world of fantasy.

Litigation Issues

Senate parliamentarian says lawmakers can’t overturn California car rules — but Republicans may try anyway

By Rachel Frazin, The Hill, Apr 4, 2025

<https://thehill.com/policy/energy-environment/5233436-senate-parliamentarian-says-lawmakers-cant-overturn-california-car-rules-but-republicans-may-try-anyway/>

The Congressional Review Act is a law that allows Congress — with the president’s approval — to overturn regulations using a simple majority.

However, the Biden administration’s approval of California’s gas car phaseout was technically issued via a waiver, rather than a federal rule — raising questions about whether the CRA applied to it.

[SEPP Comment: Can the new administration retract the waiver?]

Beach Town Poised To Use Green Left’s Favorite Legal Strategy Against Massive Offshore Wind Project

By Nick Pope, Daily Caller, Mar 28, 2025 [H/t Bernie Kepshire]

<https://dailycallernewsfoundation.org/2025/03/28/nantucket-lawsuit-green-left-offshore-wind-project/>

The town of Nantucket, Massachusetts, looks set to use one of the green left’s go-to legal strategies against a massive offshore wind farm supported by liberal environmentalists. Environmental groups have used “sue and settle” tactics — wherein plaintiffs sue an aligned administration to kill a disfavored project, which the aligned administration effectively does via settlement — for decades to impede infrastructure projects they oppose. Now, Nantucket is suing

the Trump administration and alleging that key procedural laws were not followed in Biden-era approvals for the massive SouthCoast wind farm off the island's coast, teeing up a potential "sue and settle" situation that could derail a major project supported by the green left.

Cap-and-Trade and Carbon Taxes

Put Up Gas Prices, Demand Net Zero Zealots

By Paul Homewood, Not a Lot of People Know This, Apr 4, 2025

<https://notalotofpeopleknowthat.wordpress.com/2025/04/02/put-up-gas-prices-demand-net-zero-zealots/>

If Electrify Britain really wants lower power prices, why don't they campaign for an end to the pernicious carbon tax, which would lower prices straightaway?

Precision Taxation

By Tony Heller, His Blog, Mar 30, 2025

<https://realclimatescience.com/2025/03/precision-taxation/#gsc.tab=0>

The Canadian carbon tax was carefully constructed to produce cooling right to the edge of the US border, protecting Canadians from life threatening mild temperatures.

Subsidies and Mandates Forever

Six Billion Reasons Congress Should Protect Energy Tax Credits

By Dan O'Brien, Real Clear Energy, April 2, 2025

https://www.realclearenergy.org/articles/2025/04/02/six_billion_reasons_congress_should_protect_energy_tax_credits_1101600.html

According to experts, renewables are key to achieving this balance.

John Ketchum, CEO of Florida-headquartered NextEra Energy, one of the country's largest power utilities, says **renewables and batteries are the "cheapest, fastest, and easiest way to meet surging power demand."**

If these House Republicans defend clean energy incentives like the **technology-neutral electricity tax credits**, their constituents will see lower electricity costs, more economic growth, and more job opportunities. If not, constituents will see inflation exacerbated and local economies devastated. [Boldface added]

[SEPP Comment: Subsidies for unreliable wind and solar are not technology neutral and what is the cost of batteries needed "to meet surging power demand" when modern civilization needs power 24/7?]

Dave Lewis Wants £25 Billion To Fund His Moroccan Solar Farm

By Paul Homewood, Not a Lot of People Know This, Mar 31, 2025

<https://notalotofpeopleknowthat.wordpress.com/2025/03/31/dave-lewis-wants-25-billion-to-fund-his-moroccan-solar-farm/>

[SEPP Comment: Industrial solar makes more sense in Morocco than England, but why should England subsidize it? The costs of transmission lines are not given.]

EPA and other Regulators on the March

SEC Ends Defense of Climate Disclosure Rules, Citing Cost and Intrusiveness

By Sonal Patel, Power Mag, Mar 31, 2025

https://www.powermag.com/sec-ends-defense-of-climate-disclosure-rules-citing-cost-and-intrusiveness/?utm_source=omeda&utm_medium=email&utm_campaign=pwrnews+eletter&oly_enc_id=7809H6412578JOB

Link to press release: **SEC Votes to End Defense of Climate Disclosure Rules**

US Securities and Exchange Commission, Mar 27, 2025

<https://www.sec.gov/newsroom/press-releases/2025-58>

Reexamining the Obama Era Endangerment Finding

By Paul Driessen, WUWT, Apr 2, 2025

<https://wattsupwiththat.com/2025/04/02/reexamining-the-obama-era-endangerment-finding/>

EPA chief closing environmental museum

By Ashleigh Fields, The Hill, Apr 1, 2025

<https://thehill.com/homenews/administration/5225445-epa-shuts-museum/>

“EPA will be saving American taxpayers \$18 MILLION in annual lease costs by moving staff out of the 323,000 square feet of space we occupy in the Ronald Reagan building in D.C.,” Zeldin wrote in a post on the social platform X.

See link immediately below

Watch: Peek inside the now-shuttered EPA Museum that closed because it cost \$4mil to build, \$600k annually to operate & received less than 2000 visitors

Climate Depot's Marc Morano: "The now-defunct EPA Museum evokes memories of an old East German government propaganda effort. Future generations will look back on this climate-obsessed era and marvel that a civilization ever took this climate crap seriously."

By Marc Morano, Climate Depot, Apr 3, 2025

https://www.climatedepot.com/2025/04/03/peek-inside-the-now-shuttered-epa-museum-that-closed-because-it-cost-4mil-to-build-600k-annually-to-operate-received-less-than-2000-visitors/?mc_cid=95aeb1ed2d&mc_eid=ffd82d3222

Video – The fear of global warming museum.

Energy Issues – Non-US

Oil & Gas Turning Poor Countries Into Economic Miracles

By Vijay Jayaraj, Real Clear Energy, Apr 01, 2025

https://www.realclearenergy.org/articles/2025/04/01/oil_and_gas_turning_poor_countries_into_economic_miracles_1100678.html

Energy poverty, not climate change, remains the immediate threat to these regions and continues to plague the future of millions of Africans and South Americans. Solar panels and windmills cannot power steel mills, factories or cities.

The governments of Guyana, Niger, Senegal and Côte D’Ivoire understand this. They are prioritizing their citizens’ livelihoods over “carbon-reduction” targets drafted by so-called elites in Brussels or New York.

[SEPP Comment: Of course, the professional scolds will claim that not every country is treated equally.]

A dynamite energy policy

By John Robson, Climate Discussion Nexus, Apr 2, 2025

<https://climatediscussionnexus.com/2025/04/02/a-dynamite-energy-policy/>

Pravda:

“Germany detonates its most modern coal-fired power plant after just six years. The Moorburg plant in Hamburg cost €3 billion and produced 1,654 MW, enough to power the entire city.”

Review Energy:

“...The demolition, which significantly altered the silhouette of the former coal-fired power plant, is part of efforts to clear space for green hydrogen infrastructure.”

Labour Set To Rejoin EU ETS Scheme

By Paul Homewood, Not a Lot of People Know This, Apr 4, 2025

<https://notalotofpeopleknowthat.wordpress.com/2025/03/31/labour-set-to-rejoin-eu-ets-scheme/>

“Sir Keir Starmer is poised to accept the jurisdiction of the European Court of Justice (ECJ) and align with EU rules to hit net zero.

The Government wants to rejoin the EU’s Emissions Trading Scheme (ETS) carbon market, which it left when Brexit took effect at the end of 2020.”

Homewood: Higher carbon prices will directly impact CCGT costs, thus increasing wholesale power prices, which are primarily determined by gas power.

Instead of aligning UK carbon prices with the EU, we should be abolishing the whole system, in turn reducing energy bills.

[SEPP Comment: Is this an “investor” is requesting £25 Billion to fund his Moroccan solar farm? See link under Subsidies and Mandates Forever.]

Why electricity prices will keep rising

By Andrew Montford, Net Zero Watch, Mar 31, 2025

<https://www.netzerowatch.com/all-news/why-electricity-prices-will-keep-rising>

Note that balancing costs, although mostly caused by windfarms, are recovered as levies on consumer bills, so form part of the network and balancing segment of the cost stack.

The cost of balancing the grid is rising rapidly, and exceeds £2.5 billion per year, up from less than £0.5bn (in 2025 prices) ten years ago.

£1.5 bn of this is payments to windfarms (mostly in Scotland) to switch off (including secondary payments to gas turbines, which have to increase output to meet the windfarms' customers' demand). These payments will increase rapidly in coming years because there are many new windfarms coming on stream in Scotland, and this will outpace the new grid infrastructure being put in place.

And the increased network costs will also be recovered through levies on consumers and generators.

New Strike Prices Confirm Offshore Wind Is Much Dearer Than Gas

By Paul Homewood, Not a Lot of People Know This, Apr 3, 2025

<https://notalotofpeopleknowthat.wordpress.com/2025/04/03/new-strike-prices-confirm-offshore-wind-is-much-dearer-than-gas/>

On top of that, Renewable Obligation subsidies, which apply to a quarter of the generation, will rise to around £110/MWh this year. These are paid to renewable generators on top of the income they receive from selling electricity.

Norway's Political Earthquake: A Backstop No More

By Charles Rotter, WUWT, Apr 1, 2025

<https://wattsupwiththat.com/2025/04/01/norways-political-earthquake-a-backstop-no-more/>

Labour launches net zero crackdown on boats

By Paul Homewood, Not a Lot of People Know This, Mar 30, 2025

<https://notalotofpeopleknowthat.wordpress.com/2025/03/30/labour-launches-net-zero-crackdown-on-boats/>

“Under the maritime decarbonisation strategy, boat owners will be forced to swap out diesel engines, petrol generators and wood-fired stoves for electric motors, batteries and extra shore power hookups.”

Energy Issues -- US

Nation's Power Operators Warn Congress of a Coming Reliability Shortfall

By Sonal Patel, Power Mag, Apr 3, 2025

https://www.powermag.com/nations-power-operators-warn-congress-of-a-coming-reliability-shortfall/?utm_source=omeda&utm_medium=email&utm_campaign=pwrnews+eletter&oly_enc_id=7809H6412578J0B

[SEPP Comment: Decades of subsidizing unreliable generation has consequences. Those testifying included some of the worst regions: Rich Dewey, president and CEO of the New York Independent System Operator (NYISO); Gordon van Welie, president and CEO of ISO New England (ISO-NE); Elliot Mainzer, president and CEO of the California Independent System Operator (CAISO) ...]

FERC Finally Wakes Up

By Michael McKenna, WUWT, Mar 29, 2025

<https://wattsupwiththat.com/2025/03/29/ferc-finally-wakes-up/>

At their February public meeting, the Federal Energy Regulatory Commission issued a Section 206 petition, which argued that the PJM tariff is unjust or unreasonable (or both, I suppose) because it doesn't include rules that allow for locating generation sources near or at data centers.

President Trump's Energy Dominance Agenda Leaves Climate Juggernaut on Brink of Collapse

By Tilak Doshi, The Daily Sceptic, Apr 2, 2025

<https://dailysceptic.org/2025/04/02/president-trumps-energy-dominance-agenda-leaves-climate-juggernaut-on-brink-of-collapse/>

Why the U.S. Shouldn't Be Importing Electricity From Canada

For power, we have enough sources and shouldn't need to import from anybody.

By Emily Arthun, Real Clear Energy, April 02, 2025

https://www.realclearenergy.org/articles/2025/04/02/why_the_us_shouldnt_be_importing_electricity_from_canada_1101332.html

However, with over 200 years of proven coal reserves in the ground, and some of the most advanced coal-fired generation technology in the world, the U.S. has the means to easily meet its need for affordable, reliable, and plentiful electricity for many years to come.

[SEPP Comment: Disagree: power transmission interconnections with Canada make sense. In 2023 and 2024, the Western Interconnection was a net outflow from the US to Canada. The Eastern Interconnection and Quebec Interconnection are larger, and it was a net outflow in 2023 and 2024, but diminishing. The Quebec Interconnection provides the New York ISO and the New England ISO with Hydropower.]

<https://www.eia.gov/todayinenergy/detail.php?id=63684>

American Energy Dominance: Providing the Backbone for Fair Trade

By Larry Behrens, Real Clear Energy, April 03, 2025

https://www.realclearenergy.org/articles/2025/04/03/american_energy_dominance_providing_the_backbone_for_fair_trade_1101828.html

Link to: Economic View: Tariffs Have Strengthened the U.S. Economy

By Jeff Ferry, Coalition for a Prosperous America, Feb 14, 2025

<https://archive.ph/MbSab#selection-2137.0-2161.21>

Link to working paper: Help for the Heartland? The Employment and Electoral Effects of the Trump Tariffs in the United States

By David Autor, et al., National Bureau of Economic Research, January 2024

<https://archive.ph/6yCHQ#selection-1311.4-1425.13>

[SEPP Comment; Contrary to the assertions of Behrens, the results of the research are uncertain.]

Washington's Control of Energy

First Oil And Gas Lease Sales On Public Lands Yield Nearly \$40,000,000 In Early Win For Trump Administration

By Fiona McLoughlin, Daily Caller, Mar 29, 2025

<https://dailycaller.com/2025/03/29/departments-of-the-interior-oil-and-gas-lease-sales-nearly-40000000-in-revenue/>

The BLM is set to hold an additional 15 oil and gas lease sales in 2025, the release states. The bonus bids and rentals from the leases are set to be distributed between the states and federal government. The states where sales occurred include North Dakota, Montana, New Mexico, Nevada and Wyoming.

Alaskan Tribes 'Applaud' Trump Admin Revoking 'Deeply Flawed' Biden Admin Energy Policy

By Audrey Streb, Daily Caller, Mar 26, 2025

<https://dailycaller.com/2025/03/26/alaskan-tribes-applaud-trump-admin-revoking-deeply-flawed-biden-admin-energy-policy/>

Oil and Natural Gas – the Future or the Past?

Peak Permian? Geology and Water Say We're Close

By Tsvetana Paraskova, Oil Price.com, Mar 30, 2025 [H/t Bernie Kepshire]

<https://oilprice.com/Energy/Crude-Oil/Peak-Permian-Geology-and-Water-Say-Were-Close.html>

In the Permian, the gas-to-oil ratio (GOR) has steadily risen from 34% of total production in 2014 to 40% in 2024.

Nuclear Energy and Fears

How Misinformation and Missed Chances Stalled Life-Saving Lung Cancer Screening

By Frederic W. Grannis, Jr., M.D, ACSH, Apr 03, 2025

<https://www.acsh.org/news/2025/04/03/how-misinformation-and-missed-chances-stalled-life-saving-lung-cancer-screening>

Misinformation about radiation hazards has also stifled broader acceptance. Advocacy of the linear non-threshold (LNT) model led some experts to attribute an increased malignancy risk to even minimal CT doses. Further complicating matters, earlier guidelines restricted eligibility, excluding many at-risk individuals.

TVA's Clinch River Nuclear Power Project: Where Things Stand Today

By Aaron Larson, Power Mag, Apr 3, 2025

https://www.powermag.com/tvas-clinch-river-nuclear-power-project-where-things-stand-today/?utm_source=omeda&utm_medium=email&utm_campaign=pwrnews+eletter&oly_enc_id=7809H6412578JOB

The Tennessee Valley Authority (TVA) has for many years been evaluating emerging nuclear technologies, including small modular reactors, as part of technology innovation efforts aimed at developing the energy system of the future. TVA—the largest public power provider in the U.S., serving more than 10 million people in parts of seven states—currently operates seven reactors at three nuclear power plants:

TVA began exploring advanced nuclear technologies in 2010. In 2016, it submitted an application to the Nuclear Regulatory Commission (NRC) for an Early Site Permit for one or more SMRs with a total combined generating capacity not to exceed 800 MW of electricity for the CRN site.

In the meantime, there are two primary items on TVA's to-do list. "Right now, the two biggest things that we have on our list are completing the standard design work, and then the construction permit application," Boerschig said, noting the standard design is "somewhere north of 75% complete" and that TVA's plan is to submit the construction permit application "sometime around mid-year of this year."

[SEPP Comment: The bureaucracy may be worse than what Admiral Rickover fought in building the Nuclear Navy. The 1970's LMFBR (Liquid Metal Fast Breeder Reactor) project on the Clinch River was cancelled]

Nuclear fuel: China unlocks 40 times more efficient seawater uranium extraction

By Kaif Shaikh, Interesting Engineering, Apr 2, 2025 [H/t Bernie Kepshire]

https://www.yahoo.com/news/nuclear-fuel-china-unlocks-40-205337747.html?guccounter=1&guce_referrer=aHR0cDovL21haWwuaGFhcGFsYS5jb20v&guce_referrer_sig=AQAAAFaoyEkVRIEBA-TJV2yDtVzJ79op5yF72BahAC2bOZWoaXOBJuZ2ZTSzRmK3usz-721mEjERXltoSzqN-mePOgv4CzD3bWuh1XMvdO15Y_R2-h87Us1vao3zGMVFI-yGBz-HzeH4w-XPdfBzuKRlXq38Zi5ipBBppRPH0rs06tg

Demand in US electricity elevates risk of wind/solar & highlights need for nuclear power

By Ronald Stein, Oliver Hemmers, & Steve Curtis, America Outloud News, Mar 31, 2025

<https://www.americaoutloud.news/demand-in-us-electricity-elevates-risk-of-wind-solar-highlights-need-for-nuclear-power/>

[SEPP Comment: Promotes nuclear power while ignoring coal- and natural gas-power.]

Biden Lives! Nuclear Power Welfare from U.S. Department of Energy

By Kennedy Maize, Master Resource, April 3, 2025

<https://www.masterresource.org/maize-kennedy/nuclear-welfare-us-doe/>

As Vaclav Smil noted (Energies, 1999: p. 152):

“As the U.S. utilities opted for many individualized designs, rather than for a standard reactor, and as they began to build concurrently dozens of new plants, construction costs escalated, and they were pushed up further by changing requirements of new safety regulations.”

[SEPP Comment: The problem is not money to back a design for a small nuclear reactor (SMR), but for Federal agencies to clearly establish safety requirements and approve multiple designs so that multiple designs can be built and operated to see which one, or ones, perform best at the lowest cost. This procedure should avoid the problem of the earlier nuclear expansion driven by egos of who can build the biggest reactor. Rickover went with the light water reactor for the Nuclear Navy and the Atomic Energy Commission was very reluctant to license anything else. This precluded experiments with different types. The “my reactor is bigger than your reactor” syndrome played a part and the urge to attach ever mutating bells and whistles to the basic design gave opponents a target rich environment to slow the licensing process and run up costs.]

What Happens in Vegas, Should Be Replicated. Invite All Players to Join Nuclear

By Charles Sauer, Real Clear Power, Par 1, 2025

https://www.realclearenergy.org/articles/2025/04/01/what_happens_in_vegas_should_be_replicated_invite_all_players_to_join_nuclear_1101256.html

Alternative, Green (“Clean”) Solar and Wind

The Feds are hiding the eagle death data

By David Wojick, CFACT, Apr 2, 2025

<https://www.cfact.org/2025/04/02/the-feds-are-hiding-the-eagle-death-data/>

Imagine there is an industry product that is killing thousands a year and the number is growing. The government is tracking it closely, while keeping the data secret in order to protect the product. Outrageous, right? But that is exactly the case with wind power killing eagles. Every wind-killed eagle found at an industrial wind site is quickly reported to the federal Fish and Wildlife Service (FWS). Every year each site also submits an annual kill report to FWS. None of this data is publicly available.

[SEPP Comment: So-called environmental groups are not concerned?]

Ecologists Question Renewable Energy Sprawl

By Robert Bradley Jr., Master Resource, April 4, 2025

<https://www.masterresource.org/environmental-issues-windpower/ecologists-question-renewable-sprawl/>

“Large-scale solar farms, wind turbines, and associated infrastructure are touted as solutions to the climate crisis, but their development comes at the cost of native forests and critical habitats.”
“Until conservation charities disentangle themselves from government funding and corporate influence, they risk becoming complicit in the very destruction they were created to prevent.” – Kelly Jones (Carbon8 Fund)

Atlantic Shores Wind Project Sinks—And With It, A Green Illusion

By Charles Roter, WUWT, Mar 31, 2025

<https://wattsupwiththat.com/2025/03/31/atlantic-shores-wind-project-sinks-and-with-it-a-green-illusion/>

Mild chemical recycling of waste wind turbine blade for direct reuse in production of thermoplastic composites with enhanced performance

By Cheng Hao, et al., Resources, Conservation and Recycling, April 2025 [H/t Bernie Kepshire]

<https://www.sciencedirect.com/science/article/abs/pii/S0921344925000382?via%3Dihub>

Alternative, Green (“Clean”) Energy -- Other

Green Hydrogen to Increase Gas Bills

Green hydrogen is expensive, and the Government is planning to increase your gas bill to pay for it.

By David Turver, Eigen Values, Mar 30, 2025

<https://davidturver.substack.com/p/green-hydrogen-to-increase-gas-bills>

Carbon Schemes

Government Takes RISKS With Taxpayers’ Money On Unproven Net Zero Tech

By Paul Homewood, Not a Lot of People Know This, Mar 30, 2025

<https://notalotofpeopleknowthat.wordpress.com/2025/03/30/government-takes-risks-with-taxpayers-money-on-unproven-net-zero-tech/>

The GWPF’s Harry Wilkinson explains how taxpayers are on the hook if carbon capture schemes don’t work. – Video

California Dreaming

Climate Change Driving California’s Golden Road to Decline

By Joel Kotkin, Real Clear Investigations, April 3, 2025

https://www.realclearinvestigations.com/articles/2025/04/03/climate_change_driving_californias_golden_road_to_decline_1101336.html?mc_cid=4f31a0fb6d&mc_eid=0622ebfa37

Link to: **Ways Out of California's Forest of Problems (Part 2 of 2)**

By Joel Kotkin, Real Clear Investigations, April 4, 2025

https://www.realclearinvestigations.com/articles/2025/04/04/ways_out_of_californias_forest_of_problems_part_2_of_2_1101787.html

Long essays by a Californian.

Fast-Track Dredging to Save the Delta

By Edward Ring, What’s Current, Accessed Apr 2, 2025

<https://mailchi.mp/calpolicycenter/whats-current-issue-7860144?e=cd9fa89d1e>

Compared with most water project proposals, the price tag to resume dredging in the delta is surprisingly low. At about \$10 million per mile, dredging 75 miles of delta channels comes in at \$750 million, and these days, any big water project that comes in under \$1.0 billion is a bargain.

Other Scientific News

No technical obstacles to new giant particle collider in Europe: CERN

By Agnes Pedrero, Geneva (AFP) Mar 31, 2025

https://www.google.com/search?q=reporter+Agnes+Pedrero&rlz=1C1GCEA_enUS785US785&oq=reporter+Agnes+Pedrero&gs_lcrp=EgZjaHJvbWUyBggAEEUYOTIHCAEQIRigATIHCALQIRigATIHCAMQIRigATIHCACQIRigATIHCACUQIRigATIHCAYQIRiPAIIBCTI0NjUzajBqN6gCALACAA&sourceid=chrome&ie=UTF-8

BELOW THE BOTTOM LINE

Cartrails: The Geoengineering/Mind Control Conspiracy Everyone is Ignoring

By Roy Spencer, His Blog, Mar 31, 2025

<https://www.drroyspencer.com/2025/03/cartrails-the-geoengineering-mind-control-conspiracy-everyone-is-ignoring/>

Do you know what palladium microparticles do to the human nervous system??

[SEPP Comment: Great April Fool's story.]

The Climate Crisis was Christopher Columbus's fault — “a mutant offspring of European Scientific racism”

By Jo Nova, Her Blog, Apr 4, 2025

<https://joannenova.com.au/2025/04/the-climate-crisis-was-christopher-columbuss-fault-a-mutant-offspring-of-european-scientific-racism/>

“But Tao Leigh Goffe, an associate professor of Africana, Puerto Rican and Latino Studies at the City University of New York, wants us to visualize a far more specific cause: the shunting of a ship's prow on to the sandbank of a paradise island in 1492. In *Dark Laboratory*, her groundbreaking new book, Goffe argues that it was the colonization of the Americas by Christopher Columbus that set off the chain of events that has led us to where we stand today, on the precipice of global catastrophe.”

Arctic Sea Ice Declining Faster Than Expected

By Tony Heller, His Blog, Apr 3, 2025

<https://realclimatescience.com/2025/04/arctic-sea-ice-declining-faster-than-expected/#gsc.tab=0>

They say it will be ice-free by 2000.

Don't Drive Forwards!!

By Paul Homewood, Not a Lot of People Know This, Apr 3, 2025

<https://notalotofpeopleknowthat.wordpress.com/2025/04/03/dont-drive-forwards/>

“Motorists have been warned to stop driving forwards into parking spaces. Motoring experts at ReduceMyExcess emphasized that reversing out of a parking bay will ‘use up more fuel’ than the alternative.”

[SEPP Comment: And how many efforts does it take for a motorist to back into a narrow parking space from a wider travel lane?]

Recycling The Same News Every Century

By Tony Heller, His Blog, Apr 3, 2025

<https://realclimatescience.com/2025/04/recycling-the-same-news-every-century/#gsc.tab=0>

Experts say Glacier National Park will be ice-free by ????

Protect Us From Spring

By Paul Homewood, Not a Lot of People Know This, Apr 1, 2025

<https://notalotofpeopleknowthat.wordpress.com/2025/04/01/protect-us-from-spring/>

Rolling Stone: President Trump Falsely Claims Global Warming is Good

By Eric Worrall, WUWT, Apr 2, 2025

<https://wattsupwiththat.com/2025/04/02/rolling-stone-president-trump-falsely-claims-global-warming-is-good/>

NO ARTICLES THIS WEEK