

The Week That Was: 2025-08-02 (August 2, 2025)
Brought to You by SEPP (www.SEPP.org)
The Science and Environmental Policy Project

Quote of the Week: *“The entire world we apprehend through our senses is no more than a tiny fragment in the vastness of Nature.”* — Max Planck, *The Universe in the Light of Modern Physics* (1931)

Number of the Week: 50 to 100 km (30 to 60 miles) equals one divided by ten quadrillion in cm (or 1 divided by 4 quadrillion in inches)?

THIS WEEK:

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

Scope: TWTW begins a third discussion of a paper by Howard Hayden on the difference between “climate science” and understanding the greenhouse effect. TWTW then discusses an announcement by the administrator of the EPA and a surprise report by the Secretary of the Department of Energy. TWTW then discusses comments by Judith Curry and Roy Spencer who worked on a new report by DOE. TWTW concludes with part of a statement published in the Federal Register.

A Few Notes (Part 3): Last week’s discussion of the paper by SEPP Director, Professor of Physics emeritus Howard “Cork” Hayden got into an introduction of the Greenhouse Effect as it is currently understood by Atomic, Molecular, and Optical (AMO) physicists such as Hayden. This enters into the field of Quantum Theory which is very different from classical physics.

According to the Britannica entry for Quantum:

*“In physics, **discrete natural unit, or packet, of energy, charge, angular momentum, or other physical property.** Light, for example, appearing in some respects as a continuous electromagnetic wave, on the submicroscopic level is emitted and absorbed in discrete amounts, or quanta; and for light of a given wavelength, the magnitude of all the quanta emitted or absorbed is the same in both energy and momentum. These particle-like packets of light are called photons, a term also applicable to quanta of other forms of electromagnetic energy such as X rays and gamma rays. Submicroscopic mechanical vibrations in the layers of atoms comprising crystals also give up or take on energy and momentum in quanta called phonons.*

***All phenomena in submicroscopic systems (the realm of quantum mechanics) exhibit quantization: observable quantities are restricted to a natural set of discrete values.** When the values are multiples of a constant least amount, that amount is referred to as a quantum of the observable. Thus, Planck’s constant h is the quantum of action, and \hbar (i.e., $h/2\pi$) is the quantum of angular momentum, or spin.”* [Boldface added.]

The Britannica entry for Quantum Mechanics begins with:

“Quantum mechanics, science dealing with the behavior of matter and light on the atomic and subatomic scale. It attempts to describe and account for the properties of molecules and atoms and their constituents—electrons, protons, neutrons, and other more esoteric particles such as quarks and gluons. These properties include the interactions of the particles with one another and with electromagnetic radiation (i.e., light, X-rays, and gamma rays).

*The behavior of matter and radiation on the atomic scale often seems peculiar, and the consequences of quantum theory are accordingly difficult to understand and to believe. **Its concepts frequently conflict with common-sense notions derived from observations of the everyday world. There is no reason, however, why the behavior of the atomic world should conform to that of the familiar, large-scale world.** It is important to realize that quantum mechanics is a branch of physics and that the business of physics is to describe and account for the way the world—on both the large and the small scale—actually is and not how one imagines it or would like it to be.” [Boldface added.]*

The Britannica entry for Planck’s radiation law concludes with:

“In 1900 the German theoretical physicist Max Planck made a bold suggestion. He assumed that the radiation energy is emitted, not continuously, but rather in discrete packets called quanta. The energy E of the quantum is related to the frequency ν by $E = h\nu$. The quantity h , now known as Planck’s constant, is a universal constant with the approximate value of 6.62607×10^{-34} joule-second. Planck showed that the calculated energy spectrum then agreed with observation over the entire wavelength range.”

So, when describing the greenhouse effect and how molecules of certain gases influence Earth’s emissions of Infrared Energy to space, we are dealing with extremely small dimensions, beyond the range of the laws of classical physics. In concluding his general discussion of Laboratory Measurements of GHG [Greenhouse Gas] properties, Hayden wrote [Figure omitted here]:

You make measurements of probability of interaction and the number of targets per unit area of the tube. Do the simple arithmetic and you have measured the cross-section for that kind of interaction.

Figure 10 shows the measured IR absorption cross-section from the HITRAN database. The measurements cover a range from 2 times 10^{-26} cm² to 5 times 10^{-18} cm² (the “15-micron peak” at around 670 cm⁻¹), a factor of 250 million. Needless to say, the measurements necessarily involved a wide range of experimental conditions.

The HITRAN data have been used by van Wijngaarden and Happer to calculate the effects on the IR spectrum from the equator to the poles and from the surface to the top of the atmosphere.

Now compare the size of the CO₂ molecule (4-5 times 10^{-16} cm² as it would be determined by its density as dry ice or by small-angle scattering experiments) with the IR cross-sections, as sketched in Figure 11. The largest IR cross-section is 5 times 10^{-18} cm², only about 1% of the “size” of the molecule itself. Figure 10 shows measured cross-sections that are only a millionth as large as the largest cross-section.”

For those unfamiliar with the mathematical notation “ 10^{-16} cm^2 ” is 1 divided by 10 raised to the sixteenth power or written out, ten raised to the sixteenth power is 10 followed by 16 zeros, 10,000,000,000,000,000, or in English, one divided by ten quadrillion. That is, the cross-section being discussed is one ten-quadrillionth of a square centimeter.

Even fine Global Climate Models which divide Earth into 50 to 100 km (30 to 60 mile) grid cells cannot approach the tiny dimensions needed to represent the Greenhouse Effect and do not properly calculate the small increasing influence of adding carbon dioxide to the atmosphere.

In his paper Hayden discusses the dynamics of molecular collisions. This section states:

“Molecules in the atmosphere are a tiny fraction of a millimeter apart, and they travel at roughly the speed of sound. Not surprisingly, collisions are extremely frequent. If a GHG molecule absorbs some IR, it converts all of the IR’s energy to internal rotational & vibrational energy modes. It can shed that energy by emitting IR or by being hit by another molecule (probably nitrogen or oxygen) in which case the energy thus becomes shared and very slightly heats the region.

*Now imagine a GHG molecule being slammed by another molecule. The energy from the collision can be absorbed into an internal energy state that **can emit** IR. The molecule might emit IR, or it **might** lose its excess energy through another collision. Non-GHGs (primarily nitrogen and oxygen) also have rotational and vibrational energy states that get excited and de-excited by collisions, but they neither absorb nor emit IR because these homonuclear molecules do not have a ‘handle’ (technically, **dipole moment**) that allows interaction with IR.*

There is thus a dynamic interplay going on everywhere in the atmosphere—from the surface to the top of the atmosphere, and from the equator to the poles. At every altitude, every latitude, every temperature and every pressure, there are always collisions exciting and de-exciting wavelength-dependent energy states, and always some IR is being absorbed, and some IR is being emitted.

*The generic field of interaction between IR and molecules is called **molecular spectroscopy**, and it involves both **quantum-mechanical** calculations and precision measurements.*

*In the atmosphere, those molecules interact with other molecules and IR in ways that depend on the temperature and the pressure. The kinetic energies of the molecules and the Doppler effect are temperature dependent. The closeness of molecules to one another affects the energies of excited states, hence there is so-called **pressure broadening** of spectral lines [a widening of lines in the spectrum caused by the interaction of light and matter]. The generic field of these interactions is called **statistical mechanics**.” [Emphasis in original]*

Hayden discusses absorbers and radiators: basically, a good absorber is a good radiator. Thus, the only effort by the UN IPCC to discuss infrared radiation to space got it wrong because the graph (in the first report) assumed that once photons are absorbed by CO₂ molecules there are none sent to outer space (the one-and-done model). Hayden also discusses Earth’s surface emission of Infrared Radiation which is based on the Stefan-Boltzmann law fleshed out by Max Planck.

The next TWTW will cover Hayden's discussion of the infrared properties of greenhouse gases and how the UN IPCC reports internally disagree. See link under Challenging the Orthodoxy.

Big Surprise: There were rumors in Washington that the EPA was about to announce a review of the Endangerment Finding which has been rigorously applied to carbon dioxide emissions. The claim the carbon dioxide endangers human life and welfare is dubious at best. CO2 is essential for photosynthesis, the process that converts light energy into chemical energy, combining CO2 and water into carbohydrates (food) and oxygen. The process is the food source for most life on Earth ranging from cyanobacteria to humans. Further, CO2 is a secondary greenhouse gas, water vapor is by far the dominant one.

On July 29, the EPA announced that it is reconsidering the Endangerment Finding and requested public comments, which was a surprise. But the big surprise is that the EPA relied on a Department of Energy study performed by the Climate Working Group made up of five independent scientists recruited by the Secretary of Energy, Chris Wright. The five independent scientists are: John Christy, Judith Curry, Steven Koonin, Ross McKittrick, and Roy Spencer. Christy, McKittrick, and Spencer have received SEPP's Frederick Seitz Memorial Award for adherence to the Scientific Method demonstrating their scientific integrity, though it has cost them professionally.

Also, a surprise was the independence the authors were given. Below is the forward to the report "A Critical Review of Impacts of Greenhouse Gas Emissions on the U.S. Climate" signed by Secretary Chris Wright, the Executive Summary, and comments in posts by Curry and Spencer verifying their independence in preparing the report. The Secretary's Forward states:

"Energy, Integrity, and the Power of Human Potential

Over my lifetime, I've had the privilege of working as an energy entrepreneur across a range of fields—nuclear, geothermal, natural gas, and more—and I now serve as Secretary of Energy under President Donald Trump. But above all, I'm a physical scientist who sees modern energy as nothing short of miraculous. It powers every aspect of modern life, drives every industry, and has made America an energy powerhouse with the ability to fuel global progress.

The rise of human flourishing over the past two centuries is a story worth celebrating. Yet we are told—relentlessly—that the very energy systems that enabled this progress now pose an existential threat. Hydrocarbon-based fuels, the argument goes, must be rapidly abandoned or else we risk planetary ruin.

That view demands scrutiny. That's why I commissioned this report: to encourage a more thoughtful and science-based conversation about climate change and energy. With my technical background, I've reviewed reports from the Intergovernmental Panel on Climate Change, the U.S. government's assessments, and the academic literature. I've also engaged with many climate scientists, including the authors of this report.

What I've found is that media coverage often distorts the science. Many people walk away with a view of climate change that is exaggerated or incomplete. To provide clarity and balance, I asked a diverse team of independent experts to critically review the current state of climate science, with a focus on how it relates to the United States.

I didn't select these authors because we always agree—far from it. In fact, they may not always agree with each other. But I chose them for their rigor, honesty, and willingness to elevate the debate. I exerted no control over their conclusions. What you'll read are their words, drawn from the best available data and scientific assessments.

I've reviewed the report carefully, and I believe it faithfully represents the state of climate science today. Still, many readers may be surprised by its conclusions—which differ in important ways from the mainstream narrative. That's a sign of how far the public conversation has drifted from the science itself.

To correct course, we need open, respectful, and informed debate. That's why I'm inviting public comment on this report. Honest scrutiny and scientific transparency should be at the heart of our policymaking.

Climate change is real, and it deserves attention. But it is not the greatest threat facing humanity. That distinction belongs to global energy poverty. As someone who values data, I know that improving the human condition depends on expanding access to reliable, affordable energy. Climate change is a challenge—not a catastrophe. But misguided policies based on fear rather than facts could truly endanger human well-being.

We stand at the threshold of a new era of energy leadership. If we empower innovation rather than restrain it, America can lead the world in providing cleaner, more abundant energy—lifting billions out of poverty, strengthening our economy, and improving our environment along the way.”

That the current Secretary of Energy wrote, “Climate change is real, and it deserves attention” is, no doubt, a surprise to many. See links under Challenging the Orthodoxy – DOE Report

Executive Summary of Climate Working Group: The Executive Summary of the report states:

“This report reviews scientific certainties and uncertainties in how anthropogenic carbon dioxide (CO₂) and other greenhouse gas emissions have affected, or will affect, the Nation's climate, extreme weather events, and selected metrics of societal well-being. Those emissions are increasing the concentration of CO₂ in the atmosphere through a complex and variable carbon cycle, where some portion of the additional CO₂ persists in the atmosphere for centuries.

Elevated concentrations of CO₂ directly enhance plant growth, globally contributing to “greening” the planet and increasing agricultural productivity [Section 2.1, Chapter 9]. They also make the oceans less alkaline (lower the pH). That is possibly detrimental to coral reefs, although the recent rebound of the Great Barrier Reef suggests otherwise [Section 2.2].

*Carbon dioxide also acts as a greenhouse gas, exerting a warming influence on climate and weather [Section 3.1]. **Climate change projections require scenarios of future emissions. There is evidence that scenarios widely used in the impacts literature have overstated observed and likely future emission trends [Section 3.1].***

The world's several dozen global climate models offer little guidance on how much the climate responds to elevated CO₂, with the average surface warming under a doubling of the CO₂ concentration ranging from 1.8°C to 5.7°C [Section 4.2]. Data-driven methods yield a lower and narrower range [Section 4.3]. Global climate models generally run "hot" in their description of the climate of the past few decades – too much warming at the surface and too much amplification of warming in the lower- and midtroposphere [Sections 5.2-5.4]. The combination of overly sensitive models and implausible extreme scenarios for future emissions yields exaggerated projections of future warming.

Most extreme weather events in the U.S. do not show long-term trends. Claims of increased frequency or intensity of hurricanes, tornadoes, floods, and droughts are not supported by U.S. historical data [Sections 6.1-6.7]. Additionally, forest management practices are often overlooked in assessing changes in wildfire activity [Section 6.8]. Global sea level has risen approximately 8 inches since 1900, but there are significant regional variations driven primarily by local land subsidence; U.S. tide gauge measurements in aggregate show no obvious acceleration in sea level rise beyond the historical average rate [Chapter 7].

Attribution of climate change or extreme weather events to human CO₂ emissions is challenged by natural climate variability, data limitations, and inherent model deficiencies [Chapter 8]. Moreover, solar activity's contribution to the late 20th century warming might be underestimated [Section 8.3.1].

Both models and experience suggest that CO₂-induced warming might be less damaging economically than commonly believed, and excessively aggressive mitigation policies could prove more detrimental than beneficial [Chapters 9, 10, Section 11.1]. Social Cost of Carbon estimates, which attempt to quantify the economic damage of CO₂ emissions, are highly sensitive to their underlying assumptions and so provide limited independent information [Section 11.2].

U.S. policy actions are expected to have undetectably small direct impacts on the global climate, and any effects will emerge only with long delays [Chapter 12].” [Boldface added]

See links under Challenging the Orthodoxy – DOE Report

“Climate Science Is Baaaack”: Judith Curry is Professor Emerita of Earth and Atmospheric Sciences at Georgia Institute of Technology and previously chaired the School of Earth and Atmospheric Sciences. She left the academic field and founded the Climate Forecast Applications Network (CFAN). On her blog she posted her personal impressions/analyses that are not that of the Climate Working Group (CWG). She states, in part [Boldface added]:

“This Group was assembled in April. I decided to accept Secretary Wright’s invitation for the following reasons:

*I was impressed by what Secy Wright wanted to accomplish.
I was familiar with the other group members and figured I could work with them.*

Most importantly, I saw an opportunity to set the record straight regarding what we know and what we don't know about climate science, which would reach an important audience.

I was happy to help with this but in the beginning, I confess that I was not at all sure that I would put my name on any report that came out of this. I tend to fly solo and had not contributed to any multiple authored assessment report in several decades, for a number of reasons. While I had previously met each of my co-authors several times and was familiar with their work, I was not at all sure how this would go. Further, I was concerned about the short deadline for completing the report.

Short summary: all exceeded any hopes and expectations that I had.

Climate assessment report

The Report is a remarkable document, particularly since this was written so quickly and by a small team. I encourage you to read the whole thing, it is relatively concise by the standards of climate assessment reports (closest in spirit and length to the IPCC First Assessment Report).

Given the time constraints, we had to be selective about which topics to cover. We selected topics that we judged to be of particular importance and relevance in the context of US climate and energy policy deliberations. The areas of expertise of the CWG members were also a factor in selection of topics.

While each CWG author has approved this document on a line-by-line basis, this is not a "consensus seeking" document. Uncertainties and areas of disagreement are clearly described.

*The CWG framed the overall climate change issue somewhat differently from the IPCC and the US National Climate Assessments (NCA). Our assessment is very much data driven and considers natural climate variability as well as human causes. **We consider a number of issues that we regard to be important but have received short shrift (or were completely ignored) in the IPCC and NCA reports. Some examples:***

Curry gives a brief description of the chapters and states:

"If you only have time to read a few chapters, my favorites are Chapters 6, 8 and 11. But each chapter is pretty interesting – you will be surprised at what you learn from reading this! While a single individual took the lead on each chapter, every chapter had at least 2-3 team members providing substantial input. I regard this effort as being a case where the whole is substantially greater than the sum of the parts."

For her post see link under Challenging the Orthodoxy – DOE Report.

“...we are the ‘Red Team;’ the ‘Blue Team’ has had their say since the late 1980s.”: In “Some Thoughts on Our DOE Report Regarding CO2 Impacts on the U.S. Climate” Roy Spencer (the cofounder of the method of calculating atmospheric temperature trends from satellite observations) writes, in part:

*“**PREFACE:** What follows are my own opinions, not seen by my four co-authors of the Dept. of Energy report just released, entitled *A Critical Review of Impacts of Greenhouse Gas Emissions on the U.S. Climate*. Starting sometime tomorrow, the comment docket at DOE will be open for anyone to post comments regarding the contents of that report. We authors will read all comments, and for those which are substantive and serious, we will respond in a serious manner. Where we have made mistakes in the report, we will correct them. That is the **formal** process for adjudicating these issues. Regarding the **informal** process, tomorrow I expect we will agree on how to handle media requests to respond to objections from the few ‘climate alarmist’ scientists that journalists usually turn to for such comments. To those journalists I would say: read our report, as journalists used to do; you might be surprised to learn a lot of the published science does not support what the public has been led (by you) to believe.*”

Yes, Increasing CO2 Causes a Warming Tendency in the Climate System... So What?

In my experience, much of the public has splintered into tribal positions on climate change: We either believe increasing CO2 (mainly from fossil fuel burning) has no effect, or we believe it is causing an existential crisis. There are a smaller number of individuals somewhere in the center (climate independents?)

But there is a lot of room between those two extremes for the truth to reside. Among other things, our report presents the evidence supporting the view that (1) long-term warming has been weaker than expected; (2) it’s not even known how much of that warming is due to human greenhouse gas (GHG) emissions; (3) there are good reasons to believe the warming and increasing CO2 effects on agriculture have so far been more beneficial than harmful to humanity; (4) there have been no long-term changes in severe weather events than can be tied to human GHG emissions; and (5) the few dozen climate models now being used to inform policymakers regarding energy policy are not fit for purpose.

Those models, even after decades of improvement, still produce up to a factor of 3 disagreement between those with the least warming and with the most warming (and ALL produce more summertime warming in the critically-important U.S. Corn Belt than has been observed). How can models that are advertised to be based upon ‘basic physical principles’ cause such a wide range of responses to increasing CO2? [Boldface added]

And there are many more than those 5 elements contained in our report; those are just my favorites as I sit here thinking at 4:30 a.m.”

Spencer goes on to explain how politicized climate science has become and concludes with:

We proved this cause-vs-effect conundrum in the context of climate feedbacks (positive feedbacks amplify climate warming, negative feedbacks reduce it) back in 2011 in this paper. We showed

that natural variations in clouds, if not accounted for, can make the climate system seem very sensitive (lots of warming) when in fact it is insensitive (little warming).

The morning that (peer-reviewed) paper appeared in the journal Remote Sensing, the journal editor publicly apologized for letting it be published and was (we believe) forced to resign. Who forced him? Well, from the Climategate emails we get a hint: as it was revealed by one of the “gatekeepers” of climate publications, “[name redacted by me] and I will keep them out somehow — even if we have to redefine what the peer-review literature is!”

That same morning, I was called by a particle physicist who heard all of this news and said something to the effect of, “What’s wrong with you climate guys? We have people who believe in string theory and those who don’t, but we still work together.” We both laughed over the divisive nature of climate science compared to other sciences.

Which tells you there is more than science — and even more than money — involved in the disagreement. Every environmental scientist I have ever met believes Nature is fragile. That is not a scientific view, but it is a view that colors how they interpret data, and then what they tell environmental news reporters as it is passed on to the public.

Finally, wouldn’t everyone like to work on something that can make a difference in the world? And what higher calling could there be than to Save the Earth™?”

See link under Challenging the Orthodoxy.

Reconsideration of 2009 Endangerment Finding: On August 1, the Federal Register published “Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards.” It states:

“Comments must be received on or before September 15, 2025. Comments on the information collection provisions submitted to the Office of Management and Budget (OMB) under the Paperwork Reduction Act (PRA) are best assured of consideration by OMB if OMB receives a copy of your comments on or before September 2, 2025.”

See links under EPA and other Regulators on the March

Number of the Week: 50 to 100 km (30 to 60 miles) equals one divided by ten quadrillion in cm (or 1 divided by 4 quadrillion in inches)? As stated above in the discussion of Howard Hayden’s paper, understanding the greenhouse gas influence involves calculations in dimensions of one divided by ten quadrillion cm. The smallest grid sizes for Global Climate Models are 50 to 100 km (30 to 60 mile). Yet, Global Climate Models are used to calculate the influence of greenhouse gases?

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

A Few Notes about Climate and the Greenhouse Effect

By Howard "Cork" Hayden, SEPP, July 15, 2025

http://www.sepp.org/science_papers/A%20Few%20Notes%20about%20Climate.pdf

CERES Satellite Data Suggests Low Climate Sensitivity

From Friends of Science Society, Via Anthony Watts, WUWT, July 27, 2025

<https://wattsupwiththat.com/2025/07/27/ceres-satellite-data-suggests-low-climate-sensitivity/>

[SEPP Comment: A problem in calculating the UN IPCC's Equilibrium Climate Sensitivity (ECS) for carbon dioxide is that there has never been an equilibrium climate. Earth has multiple climates that are frequently changing. ECS is an artificial construct with little meaning.]

Can Annual Irradiance = Annual Enthalpy? If So, What Does It Show About Climate Change

By Charles Blaisdell, WUWT, July 31, 2025

<https://wattsupwiththat.com/2025/07/31/if-so-what-does-it-show-about-climate-change/>

Challenging the Orthodoxy – DOE Report Climate

Press Release, DOE, 2029 [H/t Daren Bakst]

<https://www.energy.gov/topics/climate>

Link to: **A Critical Review of Impacts of Greenhouse Gas Emissions on the U.S. Climate**

By Climate Working Group, United States Department of Energy, July 23, 2025

[https://www.energy.gov/sites/default/files/2025-](https://www.energy.gov/sites/default/files/2025-07/DOE_Critical_Review_of_Impacts_of_GHG_Emissions_on_the_US_Climate_July_2025.pdf)

[07/DOE_Critical_Review_of_Impacts_of_GHG_Emissions_on_the_US_Climate_July_2025.pdf](https://www.energy.gov/sites/default/files/2025-07/DOE_Critical_Review_of_Impacts_of_GHG_Emissions_on_the_US_Climate_July_2025.pdf)

New Climate Assessment Report from US DOE

By Judith Curry, Climate Etc., July 29, 2025

<https://judithcurry.com/2025/07/29/new-climate-assessment-report-from-us-doe/>

Some Thoughts on Our DOE Report Regarding CO2 Impacts on the U.S. Climate

By Roy Spencer, July 31, 2025

<https://www.drroyspencer.com/2025/07/some-thoughts-on-our-doe-report-regarding-co2-impacts-on-the-u-s-climate/>

The DOE Scientific Report Underpinning the EPA's Decision to Reconsider the 2009 Endangerment Finding on CO2

By Roy Spencer, His Blog, July 29, 2025

<https://www.drroyspencer.com/2025/07/the-doe-scientific-report-underpinning-the-epas-decision-to-reconsider-the-2009-endangerment-finding-on-co2/>

One thing I learned through this process is how prolific and smart a researcher Ross McKittrick (U. of Guelph, Ontario) is. He was indispensable to our effort. But everyone brought their own experiences and opinions to the process, and we often had disagreements... but none that could not be quickly resolved.

A case for 'Climate Humility': Analyzing the DOE's 'A Critical Review of Impacts of Greenhouse Gas Emissions on the U.S. Climate'

By Anthony Watts, WUWT, July 30, 2025

<https://wattsupwiththat.com/2025/07/30/a-case-for-climate-humility-analyzing-the-does-a-critical-review-of-impacts-of-greenhouse-gas-emissions-on-the-u-s-climate/>

DOE Climate Team: Twelve Keys in Assessing Climate Change

By Ron Clutz, Science Matters, July 31, 2025

<https://rclutz.com/2025/07/31/doe-climate-team-twelve-keys-in-assessing-climate-change/>

Skeptics Win, Endangerment Finding Axed – Truth Finally Prevails in The Climate Wars

By Anthony Watts, WUWT, July 29, 2025

<https://wattsupwiththat.com/2025/07/29/skeptics-win-endangerment-finding-axed-truth-finally-prevails-in-the-climate-wars/>

[SEPP Comment: Watts may be celebrating prematurely.]

Climate Science Reset at the U.S. Department of Energy (realism, not alarmism)

By Robert Bradley Jr., Master Resource, July 30, 2025

<https://www.masterresource.org/u-s-department-of-energy/climate-science-at-the-us-doe/>

This report supports a more nuanced and evidence-based approach for informing climate policy that explicitly acknowledges uncertainties.... [I]t will be important to make realistic assumptions about future emissions, re-evaluate climate models to address biases and uncertainties, and clearly acknowledge the limitations of extreme event attribution studies ... for informed and effective decision-making.

A Critical Review of Impacts of Greenhouse Gas Emissions on the U.S. Climate

By Paul Homewood, Not a Lot of People Know That, Aug 1, 2025

<https://notalotofpeopleknowthat.wordpress.com/2025/08/01/a-critical-review-of-impacts-of-greenhouse-gas-emissions-on-the-u-s-climate/>

The authors make it clear they only undertook the task on the guarantee there would be no editorial oversight by the government.

Defending the Orthodoxy

Hot air and hard truths: Study finds climate disinformation evolves beyond denial to target credibility

Press Release By Heather Ford, University of Technology, Sydney, July 31, 2025 [H/t Bernie Kepshire]

https://phys.org/news/2025-07-hot-air-hard-truths-climate.html#google_vignette

Link to: **Information Integrity about Climate Science: A Systematic Review**

By E. Elbey, et al., International Panel on the Information Environment, 2025

[https://cdn.prod.website-](https://cdn.prod.website-files.com/643ecb10be528d2c1da863cb/68541b1613026bbfd94181b9_SR2025.1%20-%20Information%20Integrity%20about%20Climate%20Science.pdf)

[files.com/643ecb10be528d2c1da863cb/68541b1613026bbfd94181b9_SR2025.1%20-%20Information%20Integrity%20about%20Climate%20Science.pdf](https://cdn.prod.website-files.com/643ecb10be528d2c1da863cb/68541b1613026bbfd94181b9_SR2025.1%20-%20Information%20Integrity%20about%20Climate%20Science.pdf)

From press release: The United Nations has declared that access to information about climate change is a human right. They've even outlined a set of global principles for maintaining the integrity of publicly available information about climate change. Our study shows that misleading information is adding to the climate crisis.

[SEPP Comment: Disagreeing with the UN climate studies is climate disinformation?]

5 things to know about the Trump EPA's proposed repeal of the 'endangerment finding'

By Rachel Frazin and Saul Elbein, The Hill, July 29, 2025

<https://thehill.com/policy/energy-environment/5426546-trump-epa-zeldin-endangerment-finding-climate-change-greenhouse-gases/>

Now, the EPA is proposing to overturn that finding and instead determine “that there is insufficient reliable information to retain the conclusion that GHG emissions from new motor vehicles and engines in the United States cause or contribute to endangerment to public health and welfare in the form of global climate change.”

[SEPP Comment: Speculation and model forecasts are not physical evidence of harm.]

Defending the Orthodoxy – Bandwagon Science

Oh noes! WMO report documents spiraling weather and climate impacts

By Anthony Watts, WUWT, July 27, 2025

<https://wattsupwiththat.com/2025/07/27/oh-noes-wmo-report-documents-spiralling-weather-and-climate-impacts/>

Link to: **State of the Global Climate 2024**

By Staff, World Meteorological Organization, Mar 19, 2025

<https://wmo.int/publication-series/state-of-global-climate-2024>

From the report: Key messages

- Key climate change indicators again reach record levels
- Long-term warming (averaged over decades) remains below 1.5°C
- Sea-level rise and ocean warming irreversible for hundreds of years
- Record greenhouse gas concentrations combined with El Niño and other factors to drive 2024 record heat
- Early warnings and climate services are vital to protect communities and economies

Rebuttal to: ‘2023 Marine Heatwaves Unprecedented and Potentially Signal a Climate Tipping Point’

By Anthony Watts, WUWT, July 26, 2025

<https://wattsupwiththat.com/2025/07/26/rebuttal-to-2023-marine-heatwaves-unprecedented-and-potentially-signal-a-climate-tipping-point/>

Link to press release, **2023 marine heatwaves unprecedented and potentially signal a climate tipping point**

By Walter Beckwith, AAAS EurekAlert!, July 24, 2025

<https://www.eurekalert.org/news-releases/1091935>

Link to paper: **Record-breaking 2023 marine heatwaves**

By Tianyun Dong, et al., AAAS Science, July 24, 2025

<https://www.science.org/doi/10.1126/science.adr0910>

From abstract: The year 2023 witnessed an extraordinary surge in marine heatwaves (MHWs) across Earth’s oceans, setting new records in duration, extent, and intensity, with MHW activity totaling 53.6 billion °C days square kilometer—more than three standard deviations above the historical norm since 1982. Notable events include the **North Atlantic MHW (276-year return period) and the Southwest Pacific (141 years)**. [Boldface added.]

From press release: To better understand the MHWs of 2023, Tianyun Dong and colleagues conducted a global analysis using combined satellite observations and ocean reanalysis data, including those from the ECCO2 (Estimating the Circulation and Climate of the Ocean-Phase II) high-resolution project.

[SEPP Comment: On what physical evidence were these periodic events established with such precision?]

Questioning the Orthodoxy

Climate Messaging: The Alarmists are Alarmed

By Robert Bradley Jr., Master Resource, July 29, 2025

<https://www.masterresource.org/romm-joseph-climate-progress/alarmed-alarmists-climate/>

The Climate Change Cult Is Encountering More Resistance These Days

By Gary Abernathy, Real Clear Energy, July 30, 2025

https://www.realclearenergy.org/articles/2025/07/30/the_climate_change_cult_is_encountering_more_resistance_these_days_1125489.html

Tidbits

By John Robson, Climate Discussion Nexus, July 30, 2025

<https://climatediscussionnexus.com/2025/07/30/tidbits-121/>

At *CDN* we are skeptical of many things including the widespread political view that you can surrender on the science of climate change then fight on the policy, which we call rallying round the white flag. But we're also skeptical of the widespread political habit of endorsing the "settled science" and the policy it rode in on, then spewing carbon self-indulgently in every direction.

Social Benefits of Carbon Dioxide

Swollen Duckweed and CO2

By John Robson, Climate Discussion Nexus, July 30, 2025

<https://climatediscussionnexus.com/2025/07/30/swollen-duckweed-and-co2/>

From the CO2Science Archive.

Problems in the Orthodoxy

Climate Activism Fail from the Inside

By Robert Bradley Jr., Master Resource, July 31, 2025

<https://www.masterresource.org/collapse-alarmismpolitics/climate-activism-fail-inside/>

Ed. Note: With the multi-decade climate movement in crisis, the blame game is on.

Energy Secretary Wright Threatens To Take U.S. Out of International Energy Agency over Climate-Cult Supporting Forecasts

Instead of sipping champagne while making up fantasy stories of melting polar ice and dying polar bears, Wright challenges narratives and promotes policies that will not only help our nation, but the rest of the world.

By Leslie Eastman, Legal Insurrection, July 27, 2025

<https://legalinsurrection.com/2025/07/energy-secretary-wright-threatens-to-take-u-s-out-of-international-energy-agency-over-climate-cult-supporting-forecasts/>

Model Issues

Attribution Studies Don't Prove Anything About South Africa's Floods, Phys.org

By Linnea Lueken, Climate Realism, July 31, 2025

<https://climaterealism.com/2025/07/attribution-studies-dont-prove-anything-about-south-africas-floods-phys-org/>

Link to: **Climate change significantly worsened deadly 2022 Durban floods, study shows**

Press Release, by Wits University, July 28, 2025

https://phys.org/news/2025-07-climate-significantly-worsened-deadly-durban.html#google_vignette

Link to paper: **Extreme event attribution using km-scale simulations reveals the pronounced role of climate change in the Durban floods**

By Francois A. Engelbrecht, et al., Nature, Communications Earth & Environment, July 1, 2025

<https://www.nature.com/articles/s43247-025-02460-5>

From the abstract: Here we report on the development of a convection-permitting conditional extreme event attribution modelling system, well-suited to explore the role of climate change in meso- and convective-scale extreme weather events.

The system relies on a km-scale perturbed-physics ensemble to describe the simulation/structural uncertainty associated with an extreme weather event in an anthropogenically-warmed world, compared to counterfactual cooler worlds where the effects of anthropogenic forcing are (partially) removed. Simulations reveal a pronounced role of climate change in the Durban floods.

[SEPP Comment: Testing one model against another model is not testing the model against physical evidence to see whether it can forecast reliably.]

Changing Weather

Where and when are lightning deaths most common in the US?

By Christopher Adams, The Hill, Aug 1, 2025

<https://thehill.com/policy/energy-environment/5432278-lightning-strikes-death-explainer/>

133 Years of Texas Hill Country Heavy Rainfall Data Show No Trends

By Roy Spencer, His Blog, July 30, 2025

<https://www.drroyspencer.com/2025/07/133-years-of-texas-hill-country-heavy-rainfall-data-show-no-trends/>

As we document in our Department of Energy report released yesterday entitled, “A Critical Review of Impacts of Greenhouse Gas Emissions on the U.S. Climate,” when one looks at rainfall statistics across the U.S. extending back to the mid- to late-1800s, there is little evidence for anything that might be considered related to human-caused climate change.

The public has been misled on climate science, and we are trying to set the record straight.

July Snow Forecast In Alps Shocks Europeans...Up To 30 cm As Global Temps Plummet!

By P Gosselin, No Tricks Zone, July 27, 2025

<https://notrickszone.com/2025/07/27/forecast-of-july-snow-in-the-alps-shocks-europeans-up-to-30-cm/>

The German “Summer From Hell” That Never Came...Earlier Wild Forecasts Backfire

By Frank Bosse, Via P Gosselin, No Tricks Zone, July 29, 2025

<https://notrickszone.com/2025/07/29/the-german-summer-from-hell-that-never-came-earlier-wild-forecasts-backfire/>

Historical Weather Analysis With Visitech

By Tony Heller, His Blog, July 29, 2025

<https://realclimatescience.com/2025/07/historical-weather-analysis-with-visitech/#gsc.tab=0>

A ten-minute introductory video showing how visitech.ai subscribers can use the website for analyzing historical [US] weather data.

Pyrocumulus Over the Olympic Peninsula

By Cliff Mass Weather Blog, July 30, 2025

<https://cliffmass.blogspot.com/2025/07/pyrocumulus-over-olympic-peninsula.html>

Changing Cryosphere – Land / Sea Ice

Strange Sea Ice Data July End 2025

By Ron Clutz, His Blog, Aug 1, 2025

<https://rclutz.com/2025/08/01/strange-sea-ice-data-july-end-2025/>

Before presenting the MASIE and SII results for July, a note about a strange thing in today's Sea Ice Index report. I have sent a note to them requesting an explanation for why the values have been altered from those in the dataset just two days ago. When attempting to add into my spreadsheets the final two July days, I noticed that all the previous values were now different. Exploring further, going back to beginning of 2024 all values had changed, some showing larger extents and many showing smaller ice extents than previous recorded.

Put that one on ice

By John Robson, Climate Discussion Nexus, July 30, 2025

<https://climatediscussionnexus.com/2025/07/30/put-that-one-on-ice/>

So, in the wacky world of climate science, things nobody can explain are settled, and glaciers gaining ice mass doesn't mean they're not vanishing.

Acidic Waters

Delayed onset of ocean acidification in the Gulf of Maine

By Joseph A. Stewart, Nature, Scientific Reports, Jan 15, 2025 [H/t Bernie Kepshire]

<https://www.nature.com/articles/s41598-024-84537-3>

From the abstract: To address this, we present coastal water pH proxy records using boron isotope ($\delta^{11}\text{B}$) measurements in long-lived, annually banded, crustose coralline algae (1920–2018 CE). These records indicate seawater pH was low (~ 7.9) for much of the last century. Contrary to expectation, we also find that pH has increased (+ 0.2 pH units) over the past 40 years, despite concurrent rising atmospheric CO₂. This increase is attributed to an increased input of high alkalinity waters derived from the Gulf Stream. **This delayed onset of ocean acidification is cause for concern.** [Boldface added]

[SEPP Comment: The “delay” may be due to the claim of ocean “acidification” being false.]

Agriculture Issues & Fear of Famine

Sugar is Sugar is Sugar — Part 1

By Kip Hansen, WUWT, July 26, 2025

<https://wattsupwiththat.com/2025/07/26/sugar-is-sugar-is-sugar-part-1/>

Sugar is Sugar is Sugar — Part 2

By Kip Hansen, WUWT, July 31, 2025

<https://wattsupwiththat.com/2025/07/31/sugar-is-sugar-is-sugar-part-2/>

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

Endangering alarmism

By John Robson, Climate Discussion Nexus, July 30, 2025

<https://climatediscussionnexus.com/2025/07/30/endangering-alarmism/>

The New York Times has the vapors over the news that the E.P.A. “Is Said To Have Drafted a Plan to End Its Ability to Fight Climate Change/ According to two people familiar with the draft, it would eliminate the **bedrock scientific finding that greenhouse-gas emissions threaten human life by dangerously warming the planet.**” Questions that might be asked by informed, sensible people include: Could the EPA actually “fight climate change” even if it had an opinion that greenhouse-gas emissions threaten human life? And also: Do greenhouse-gas emissions “threaten human life”. But they’re not that kind of journalists. [Boldface added.]

The Telegraph Don’t Understand Battery Storage

By Paul Homewood, Not a Lot of People Know That, July 27, 2025

<https://notalotofpeopleknowthat.wordpress.com/2025/07/27/the-telegraph-dont-understand-battery-storage/>

Moreover, 50 GWh would only be enough to run the grid for an hour.

Wildfires in the Mediterranean: History vs. Climate Narrative

By H. Sterling Burnett, WUWT, July 26, 2025

<https://wattsupwiththat.com/2025/07/26/wildfires-in-the-mediterranean-history-vs-climate-narrative/>

The Hill Allows a Clinton Crony to Lie About Climate Change Tearing Our Nation Apart

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

<https://climaterealism.com/2025/08/the-hill-allows-a-clinton-crony-to-lie-about-climate-change-tearing-our-nation-apart/>

BBC’s Air Turbulence Lies

By Paul Homewood, Not a Lot of People Know That, Aug 1, 2025

<https://notalotofpeopleknowthat.wordpress.com/2025/08/01/bbcs-air-turbulence-lies/>

Readers would no doubt form rather different conclusions, if they had been provided with the actual data at the beginning.

Fact Checking Reuters Wildfire Misinformation

By Paul Homewood, Not a Lot of People Know That, July 26, 2025

<https://notalotofpeopleknowthat.wordpress.com/2025/07/26/fact-checking-reuters-wildfire-misinformation/>

The Great Lakes Aren’t Suffering from Climate Change, Milwaukee Journal Sentinel

By Linnea Lueken, Climate Realism, July 28, 2025

<https://climaterealism.com/2025/07/the-great-lakes-arent-suffering-from-climate-change-milwaukee-journal-sentinel/>

Communicating Better to the Public – Exaggerate, or be Vague?

Barnaby Joyce wants Australia to abandon net zero – but his 4 central claims don't stack up

By Ella Vines, The Conversation, July 27, 2025 [H/t Bernie Kepshire]

<https://theconversation.com/barnaby-joyce-wants-australia-to-abandon-net-zero-but-his-4-central-claims-dont-stack-up-261837>

Cost of delayed Victorian interconnector lifts off and reaches escape velocity

By Jo Nova, Her Blog, Aug 1, 2025

<https://joannenova.com.au/2025/08/cost-of-delayed-victorian-interconnector-lifts-off-and-reaches-escape-velocity/>

In a nasty shock, the VNI West interconnector price has doubled and doubled again.

The whole renewables fantasy is unraveling before our eyes.

[SEPP Comment: Perhaps the primitive natives (local farmers) are not so ignorant after all.]

Communicating Better to the Public – Make things up.

No Right to a Stable Climate

By Ron Clutz, His Blog, July 29, 2025

<https://rclutz.com/2025/07/29/no-right-to-a-stable-climate/>

Link to article: **Countries Have Legal Duty to Protect Human Right to a Stable Climate, Top Court Rules**

By Martina Igini, Earth.org, July 4, 2025

<https://earth.org/countries-have-legal-duty-to-protect-human-right-to-a-stable-climate-top-human-rights-court-ruled/>

From article: In its long-awaited advisory opinion, the Inter-American Court of Human Rights (IACtHR) also affirmed states' legal obligation to protect environmental defenders and ensure access to justice.

Communicating Better to the Public – Use Propaganda

EPA proposing to repeal climate 'endangerment finding' Tuesday

By Rachel Frazin, The Hill, July 29, 2025

<https://thehill.com/policy/energy-environment/5425226-epa-climate-endangerment-finding-zeldin/>

The proposal to repeal the finding comes in spite of decades of evidence that climate change drives an increase in the frequency and intensity of extreme weather.

[SEPP Comment: Complete physical evidence contradicts the journalist.]

Fixing the race

By John Robson, Climate Discussion Nexus, July 30, 2025

<https://climatediscussionnexus.com/2025/07/30/fixing-the-race/>

You see? They regard Trump's motives as malign and his vision as cloudy, whereas the heirs of Mao are as wise as they are kind. And so they are winning:

“While China still burns more coal than the rest of the world and emits more climate pollution than the United States and Europe combined, its pivot to cleaner alternatives is happening at breakneck speed. Not only does China already dominate global

manufacturing of solar panels, wind turbines, batteries, E.V.s and many other clean energy industries, but with each passing month it is widening its technological lead.” Except for the part where the U.S. is still the world’s leading economy by a mile, and China is facing an interlocking set of crises financial, demographic and ideological. But you’d never know it reading the Times.

Midsummer Madness

By Michael Kile, WUWT, July 31, 2025

<https://wattsupwiththat.com/2025/07/31/midsummer-madness/>

“WAA [World Weather Attribution] is surely one of the most successful marketing campaigns in the history of climate advocacy. I call it a marketing campaign based on how they describe their goals: ‘Increasing the ‘immediacy’ of climate change, thereby increasing support for mitigation’; and ‘unlike every other branch of climate science or science in general, event attribution was actually originally suggested with the courts in mind’.” [The Honest Broker, April 5, 2025]

Communicating Better to the Public – Use Propaganda on Children

Claim: Young people are growing tired of climate alarmism

By Eric Worrall, WUWT, July 30, 2025

<https://wattsupwiththat.com/2025/07/30/claim-young-people-are-growing-tired-of-climate-alarmism/>

Questioning European Green

The Frightening Cost of Net Zero

By Paul Homewood, Not a Lot of People Know That, July 28, 2025

<https://notalotofpeopleknowthat.wordpress.com/2025/07/28/the-frightening-cost-of-net-zero/>

Worse still, the threat to British industry and jobs from Net Zero is a very real one. This is one cost that is impossible to measure.

Poland’s Pragmatic Energy Approach Pays Off

By Vijay Jayaraj, CO2 Coalition, July 30, 2025

<https://co2coalition.org/2025/07/30/polands-pragmatic-energy-approach-pays-off/>

Matt Ridley & Net Zero

By Paul Homewood, Not a Lot of People Know That, July 31, 2025

<https://notalotofpeopleknowthat.wordpress.com/2025/07/30/matt-ridley-net-zero/>

From X: The climate boondoggle is one of the most regressive wealth transfers in history: never in the field of human commerce, or at least not since the sheriff of Nottingham, has so much tax been paid by people so poor to people so rich.

The dark future for renewables

By Andrew Montford, Net Zero Watch, July 30, 2025

<https://www.netzerowatch.com/all-news/dark-future-renewables>

But I am not sure that Labour has even begun to grasp the scale of the problem it faces. Getting the UK back to growth would be hard enough if we had US power prices. At the sky-high levels that have become the norm in the UK, the task looks almost impossible.

New Offshore Wind Is Now Twice The Price Of Gas

By Paul Homewood, Not a Lot of People Know That, July 27, 2025

<https://notalotofpeopleknowthat.wordpress.com/2025/07/27/new-offshore-wind-is-now-twice-the-price-of-gas/>

Questioning Green Elsewhere

Another sun god myth busted

By John Robson, Climate Discussion Nexus, July 30, 2025

<https://climatediscussionnexus.com/2025/07/30/another-sun-god-myth-busted/>

One solar myth persists, or rather seems to have arisen in modernity, namely the climate cult's belief that solar panels are the cheapest way to generate electricity. Alas, a team of missionaries are even now arriving at the tribal grounds with chapter and verse in hand to show the holdouts that, once you take intermittency into account, solar is by far the most expensive option.

Maryland Democrats Scramble As Green Energy Agenda Sparks Power Bill

Hyperinflation

By Tyler Durdin, Zero Hedge, July 30, 2025 [H/t Bernie Kepshire]

<https://www.zerohedge.com/political/maryland-democrats-scramble-green-energy-agenda-sparks-power-bill-hyperinflation>

Electricity Has No Color: Let's Stop Pretending It Does

AI and the surging demand for power requires us to be color blind.

By Neil Auerbach, Real Clear Energy, July 29, 2025

https://www.realclearenergy.org/articles/2025/07/29/electricity_has_no_color_lets_stop_pretending_it_does_1125732.html

Litigation Issues

Where there's a won't

By John Robson, Climate Discussion Nexus, July 30, 2025

<https://climatediscussionnexus.com/2025/07/30/where-theres-a-wont/>

The persistent belief in certain quarters that the key to good policy is good intentions, superbly assessed in Thomas Sowell's **A Conflict of Visions**, was prominently on display in a *Euronews.green* headline "UN's top court says healthy environment is a human right in historic climate ruling". In the old days, the Battle of Hastings was historic not because William of Normandy said he intended to go conquer England, it was historic because he did it. In much the same way that Hitler's conquest of Britain was not historic because he didn't. But now "Experts say the non-binding advisory opinion could mark a turning point in international climate law." A major problem, speaking of Europe and England, is the old legal principle in the latter "No right without a remedy". Anglosphere law doesn't tell you that you have a right to something unless it gives you a specific practical method, a writ or some such, that enables you to get it. For instance security of the person and *habeas corpus*. Whereas from the French to the Russian revolution, you were promised endless things that, like a locked candy store, sure appealed but were not accessible.

EPA and other Regulators on the March

Proposed Rule: Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards

By Staff, EPA, July 29, 2025

<https://www.epa.gov/regulations-emissions-vehicles-and-engines/proposed-rule-reconsideration-2009-endangerment-finding>

Link to: Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards

By Staff, Federal Register, August 1, 2025

<https://www.govinfo.gov/content/pkg/FR-2025-08-01/pdf/2025-14572.pdf>

EPA Finally Proposes To Rescind The Endangerment Finding

By Francis Menton, Manhattan Contrarian, July 29, 2025

<https://www.manhattancontrarian.com/blog/2025-7-29-epa-finally-proposes-to-rescind-the-endangerment-finding>

The process here will likely take until around the end of this year for EPA to formally enact the rescission. And then the legal battles begin — first to the DC Circuit, and then to the Supreme Court. The big question: Can the administration get this process to the Supreme Court in time to avoid a reversal of this whole regulatory effort by a Democratic administration that could be elected in 2028? I would think that if the Supremes have upheld this effort of Trump's EPA before January 2029, it will be very difficult for a subsequent administration to reverse.

EPA Proposal to Reconsider GHG Endangerment Finding

By Ron Clutz, His Blog, July 30, 2025

<https://rclutz.com/2025/07/30/epa-proposal-to-reconsider-ghg-endangerment-finding/>

Uses Executive Summary

The US Endangerment Finding, like Sauron's Climate Ring of Power, nears Mount Doom

By Jo Nova, Her Blog, July 31, 2025

<https://joannenova.com.au/2025/07/the-us-endangerment-finding-like-saurons-climate-ring-of-power-nears-mount-doom/>

Thus, the Endangerment Ring binds all others, employs a million regulators, and centralizes control. Ultimately, it corrupts all those on the sacred quest to control the weather (if they were not corrupt to start with). Its power reaches right into your home and takes your money and shrinks the showerhead too.

US Carbon Dioxide Endangerment Finding Axed

By Paul Homewood, Not a Lot of People Know That, July 30, 2025

<https://notalotofpeopleknowthat.wordpress.com/2025/07/30/us-carbon-dioxide-endangerment-finding-axed/>

From BBC News:

Zeldin said that emissions standards were a "distraction" and that the policy change was "an economic issue". "Repealing it will be the largest deregulatory action in the history of America," he said.

EPA delays methane emission rule for oil and gas

By Rachel Frazzin, The Hill, July 30, 2025

<https://thehill.com/policy/energy-environment/5428218-epa-methane-emission-rule-oil-and-gas/>

Energy Issues – Non-US

A Data-Driven Path to Universal Energy Access in Africa

By Laura Cozzi, Real Clear Energy, July 31, 2025

https://www.realclearenergy.org/articles/2025/07/31/a_data-driven_path_to_universal_energy_access_in_africa_1125925.html

Link to report: **Universal Access to Clean Cooking in Africa**

By Staff, IEA, July 25, 2025

<https://www.iea.org/reports/universal-access-to-clean-cooking-in-africa>

[SEPP Comment: The report recognizes that cookstoves using biogas (improved cooktops), electricity, ethanol, LPG, and natural gas are “clean.”]

OFGEM Want To Increase Energy Bills To Pay For Net Zero

By Paul Homewood, Not a Lot of People Know That, July 31, 2025

<https://notalotofpeopleknowthat.wordpress.com/2025/07/31/ofgem-want-to-increase-energy-bills/>

It is time that OFGEM put the interest of all energy consumers in front of all other considerations. And if, as is inevitable, Net Zero puts up energy bills, Jonathan Brearley [CEO of OFGEM] should have the courage to say so.

[SEPP Comment: Does OFGEM have any idea of the cost of making wind and solar reliable?]

Octopus [Energy UK] Payment Scam

By Paul Homewood, Not a Lot of People Know That, July 31, 2025

<https://notalotofpeopleknowthat.wordpress.com/2025/07/30/octopus-payment-scam/>

[SEPP Comment: Pay for high winter heating bills in the summer.]

Energy Issues – Australia

Blackout Australia Doubles Down on Net Zero

By Eric Worrall., WUWT, July 29, 2025

<https://wattsupwiththat.com/2025/07/29/blackout-australia-doubles-down-on-net-zero/>

None of this comes close to meeting Australia’s energy needs. 14GW of “storage or clean dispatchable capacity” covers half of Australia’s 35GW of peak demand.

Thanks Albo! Australia is one of the worst-performing nations in the developed world

Originally published in The Spectator Australia, July 2025

By Alan Moran, His Blog, July 31, 2025

<https://amoran.substack.com/p/thanks-albo-australia-is-one-of-the>

Energy Issues -- US

DOE’s Fifth Emergency Order—for PJM—Caps Summer of Escalating Grid Risk

By Sonal Patel, Power Mag, July 31, 2025

[https://www.powermag.com/does-fifth-emergency-order-for-pjm-caps-summer-of-escalating-grid-](https://www.powermag.com/does-fifth-emergency-order-for-pjm-caps-summer-of-escalating-grid-risk/?utm_source=omeda&utm_medium=email&utm_campaign=pwrnews+eletter&oly_enc_id=7809H6412578J0B)

[risk/?utm_source=omeda&utm_medium=email&utm_campaign=pwrnews+eletter&oly_enc_id=7809H6412578J0B](https://www.powermag.com/does-fifth-emergency-order-for-pjm-caps-summer-of-escalating-grid-risk/?utm_source=omeda&utm_medium=email&utm_campaign=pwrnews+eletter&oly_enc_id=7809H6412578J0B)

Link to report: **Reliability, Resource Adequacy Report**

By Staff, US DOE, July 2025

<https://www.energy.gov/topics/reliability>

Full report: **Report on Evaluating U.S. Grid Reliability and Security**

https://www.energy.gov/sites/default/files/2025-07/DOE%20Final%20EO%20Report%20%28FINAL%20JULY%207%29_0.pdf

Highlights: 1) The status quo is unsustainable; 2) Grid growth must match the pace of AI innovation; 3) Retirements plus load growth increase risk of power outages 100 times in 2030; 4) Planned supply falls short, reliability at risk; and 5) Old tools won't solve new problems.

PJM's Record-High, Capacity Prices Spark Sector Reckoning as Market Signals, Policy Battles Intensify

By Sonal Patel, Power Mag, July 31, 2025

https://www.powermag.com/pjms-record-high-capacity-prices-spark-sector-reckoning-as-market-signals-policy-battles-intensify/?utm_source=omeda&utm_medium=email&utm_campaign=pwrnews+eletter&oly_enc_id=7809H6412578J0B

Capacity prices in PJM Interconnection's latest auction spiked to the market's price ceiling, hitting \$329.17/MW-day across the board for the 2026/2027 delivery year—the maximum allowed under new Federal Energy Regulatory Commission (FERC) rules.

Grid on the Brink: PJM's Record Auction Proves We Must Keep—and Build—More Coal Plants

By Terry L. Headley, Real Clean Energy, July 31, 2025

https://www.realclearenergy.org/articles/2025/07/31/grid_on_the_brink_pjms_record_auction_proves_we_must_keepand_buildmore_coal_plants_1125926.html

The Very Real Human Impact of Coal Closures

By The Editors, Real Clear Energy, July 31, 2025

https://www.realclearenergy.org/articles/2025/07/31/the_very_real_human_impact_of_coal_closures_1125990.html

Coal's role in power generation will have dropped from 45% in 2010 to 16% now and to less than 1% in 2035.

From graph "The U.S. Department of Energy: U.S. Power Generation (Wind and Solar to Dominate)

'By 2040, the DOE has U.S. Electricity demand rising by 25-30%. And the percentage share for non-dispatchable resources wind and solar will soar from 18% today to 58% by 2040. In contrast, the power share for dispatchable baseload sources; gas, nuclear, and coal will sink from 73% to just 33%, with coal entirely phased out.'

[SEPP Comment: A pathway to blackouts.]

AI Revolution Drives Huge Gas Plant Build-Out

By Steve Goreham, WUWT, July 28, 2025

<https://wattsupwiththat.com/2025/07/28/ai-revolution-drives-huge-gas-plant-build-out/>

Climate Change Weekly # 550 — Biden Policies Leading to Blackouts

By H. Sterling Burnett, The Heartland Institute, July 25, 2025
<https://heartland.org/opinion/climate-change-weekly-550-biden-policies-leading-to-blackouts/>

At a Time of Accelerating Change, Utilities Need to Build Flexibility into Their Strategy for Load Growth

By Adam Light, Power Mag, July 25, 2025

https://www.powermag.com/at-a-time-of-accelerating-change-utilities-need-to-build-flexibility-into-their-strategy-for-load-growth/?utm_source=omeda&utm_medium=email&utm_campaign=pwrnews+eletter&oly_enc_id=7809H6412578JOB

With the rise of VPPs, utilities are beginning the process of introducing a third operational realm. This new realm encompasses assets not owned or maintained by the utility. These assets can be turned up, turned down, and turned on and off in ways that are quite unlike traditional grid infrastructure. This new operational domain introduces a promising and highly flexible tool that can complement transmission and distribution, improving efficiency and reliability while lowering overall system costs.

With the rise of VPPs, utilities are beginning the process of introducing a third operational realm. This new realm encompasses assets not owned or maintained by the utility. These assets can be turned up, turned down, and turned on and off in ways that are quite unlike traditional grid infrastructure. This new operational domain introduces a promising and highly flexible tool that can complement transmission and distribution, improving efficiency and reliability while lowering overall system costs.

[SEPP Comment: When demand is high, shut off the power to consumers?]

Washington's Control of Energy

Trump, Wright End the Grain Belt Loan Grab: Families Win, Biden's Agenda Loses

By Larry Behrens, Real Clear Energy, July 28, 2025

https://www.realclearenergy.org/articles/2025/07/28/trump_wright_end_the_grain_belt_loan_grab_families_win_bidens_agenda_loses_1125100.html

Trump Is Dead Right On Wind Farms

By Paul Homewood, Not a Lot of People Know That, July 31, 2025

<https://notalotofpeopleknowthat.wordpress.com/2025/07/31/trump-is-dead-right-on-wind-farms/>
Video “Wind needs massive subsidies.” “We won’t permit in in the US.”

Nuclear Energy and Fears

The Future of Nuclear Might Be Small

“Small is beautiful” – E. F. Schumacher

By Duggan Flanakin, Real Clear Energy, July 30, 2025

https://www.realclearenergy.org/articles/2025/07/30/the_future_of_nuclear_might_be_small_1125671.html

As the news gets around that two Chinese companies have developed commercially viable miniature nuclear-powered batteries with potential to operate for up to a century to power everything from pacemakers to remote sensors to multiple uses in outer space, other companies from China to the U.S. to Vietnam are taking a long look at small modular reactors and even microreactors – all of which can be mass produced to dramatically cut costs.

Nuclear power start-up pulls out of Britain as Miliband drags feet

By Paul Homewood, Not a Lot of People Know That, July 31, 2025

<https://notalotofpeopleknowthat.wordpress.com/2025/07/31/nuclear-power-start-up-pulls-out-of-britain-as-miliband-draggs-feet/>

***Alternative, Green (“Clean”) Solar and Wind* The Ongoing Fiction of Cheap Wind and Solar**

By Vijay Jayaraj, CO2 Coalition, July 31, 2025

<https://co2coalition.org/2025/07/31/the-ongoing-fiction-of-cheap-wind-and-solar/>

Those claiming that wind and solar energy are cheaper than fossil fuels should be writing scripts for science fiction dramas.

[SEPP Comment: The problem of relying on part-time marginal cost rather than full-time total cost.]

Trump administration considers additional hurdles for wind energy

By Rachel Frazin, The Hill, July 29, 2025

<https://thehill.com/homenews/administration/5426635-trump-administration-wind-energy-barriers/>

In addition, the Interior Department will review bird deaths associated with wind energy. The Trump administration has weakened protections on migratory birds when they're killed by companies generally.

[SEPP Comment: Do wind companies get a free pass when they kill endangered birds and bats?]

Increasing solar energy adoption by just 15 percent could yield considerable emissions reductions

By Sharon Udasin, The Hill, July 30, 2025

<https://thehill.com/policy/energy-environment/5427197-solar-energy-production-emissions-reductions/>

Link to paper: **Quantifying effects of solar power adoption on CO2 emissions reduction**

By Arpita Biswas, et al., AAAS, Science Advances, July 30, 2025

<https://www.science.org/doi/10.1126/sciadv.adq5660>

From abstract: Our analysis highlights how solar adoption in one region affects CO2 emissions in neighboring regions, emphasizing the potential for collaborative efforts. We estimate that a 15% increase in solar generation is associated with an annual reduction of 8.54 million metric tons (MMT) of CO2 emissions, contributing 12.38% toward the yearly target of 69 MMT CO2 reductions needed to cut 1380 MMT of CO2 in 20 years, as per the Environmental Protection Agency rule on fossil fuel power plants.

[SEPP Comment: How long will the EPA rule exist and how much will it cost?]

Study: Climate Change Could Worsen Prolonged Wind Droughts

By Eric Worrall, WUWT, July 31, 2025

<https://wattsupwiththat.com/2025/07/31/study-climate-change-could-worsen-prolonged-wind-droughts/>

Link to paper: **Prolonged wind droughts in a warming climate threaten global wind power security**

By Meng Qu, Nature Climate Change, July 28, 2025

<https://www.nature.com/articles/s41558-025-02387-x>

From abstract: Here, using hourly data from 21 IPCC models, we reveal robust increasing trends in wind drought duration at both global and regional scales by 2100, across low- and high-CO2 scenarios. These trends are primarily driven by declining mid-latitude cyclone frequencies and Arctic warming.

[SEPP Comment: Fewer extreme weather events?]

FWS is violating its own eagle-kill regulations

By David Wojick, CFACT, July 28, 2025

<https://www.cfact.org/2025/07/28/fws-is-violating-its-own-eagle-kill-regulations/>

Link to: **Avian Protection Plan (APP) Guidelines**

By Staff, The Edison Electric Institute's Avian Power Line Interaction Committee (APLIC) and U.S. Fish and Wildlife Service (USFWS), April 2005

https://www.aplic.org/uploads/files/2634/APPguidelines_final-draft_Aprl2005.pdf

Every on-land wind project requires a permit to kill eagles from the U.S. Fish and Wildlife Service (FWS). These permits are based on an offset program in which eagle deaths are supposedly offset by saving the lives of other eagles by making power poles safer.

In a recent study I found that this offset program is not working.

Even though the Regulations specifically refer to the risk of failure, FWS has done no effectiveness monitoring of the compensatory mitigation measures. Given that approximately 30,000 wind turbines have been permitted to kill eagles, this is noncompliance on an enormous scale.

“An "avian-safe" power pole is designed to minimize bird electrocution risk by providing sufficient separation between energized and grounded wires and equipment to accommodate the height and wingspan of birds, which varies depending on species present in the geographic region and habitat. If such separation cannot be provided, exposed parts are covered to reduce electrocution risk.

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

Gridscale batteries could cause havoc in urban areas

By Paul Homewood, Not a Lot of People Know That, July 27, 2025

<https://notalotofpeopleknowthat.wordpress.com/2025/07/27/gridscale-batteries-could-cause-havoc-in-urban-areas/>

Alternative, Green (“Clean”) Vehicles

EV Update: Will The Market Survive The Expiration Of The Federal Tax Credit?

By Francis Menton, Manhattan Contrarian, July 26, 2025

<https://www.manhattancontrarian.com/blog/2025-7-26-ev-update-will-the-market-survive-the-expiration-of-the-federal-tax-credit>

How quickly things change.

It was barely more than a year ago that climate activists and federal bureaucrats thought they had maneuvered the internal combustion engine (ICE) automobile to the brink of extinction. ICE vehicles had become like dinosaurs, inferior to their new competitors the EVs, and therefore headed for the scrap heap of history. Customers were flocking to the trendy new EVs, which were seeing rapidly rising sales.

On June 7, 2024, President Biden's National Highway Traffic Safety Administration had issued a final rule ("Corporate Average Fuel Economy [CAFE] Standards for Passenger Cars and Light Trucks for Model Years 2027 and Beyond and Fuel Efficiency Standards for Heavy-Duty Pickup Trucks and Vans for Model Years 2030 and Beyond") jacking up mandatory average vehicle mileage to 50+ [mpg] as of 2031, with further increases to follow from there.

NHTSA's CAFE standards just got eviscerated by the "One Big Beautiful Bill" Act. Although the standards themselves have not yet been rescinded, the OBBB re-set the enforcement mechanism to have a maximum penalty of zero.

Fury as Labour council approves 'unsafe' electric bus garage below flats in Barnet

By Paul Homewood, Not a Lot of People Know That, July 31, 2025

<https://notalotofpeopleknowthat.wordpress.com/2025/07/30/fury-as-labour-council-approves-unsafe-electric-bus-garage-below-flats-in-barnet/>

California Dreaming

Logging Saves Species and Increases Our Water Supply

By Edward Ring, What's Current, Accessed July 30, 2025

<https://mailchi.mp/calpolicycenter/whats-current-issue-7860534?e=cd9fa89d1e>

Up through the 1980s, California harvested 6 billion board feet per year of timber; the annual harvest is now 25 percent of that. We have turned our forests into tinderboxes, and that is the reason fires turn into superfires.

Environmental Industry

Reclaiming 'Environmentalism' From the Climate Extremists

By Gary Abernathy, Real Clear Energy, July 28, 2025

https://www.realclearenergy.org/articles/2025/07/28/reclaiming_environmentalism_from_the_climate_extremists_1125467.html

Other Scientific News

Equatorial Plasma Bubbles Are Coming For Your GPS

By SpaceWeather.com, Via Anthony Watts, WUWT, July 26, 2025

<https://wattsupwiththat.com/2025/07/26/equatorial-plasma-bubbles-are-coming-for-your-gps/>

BELOW THE BOTTOM LINE

Misuse, Misquote, or Just Misunderstood? Readers Wanted for the Blob's Latest Climate Panic

By Charles Rotter, WUWT, Aug 1, 2025

<https://wattsupwiththat.com/2025/08/01/misuse-misquote-or-just-misunderstood-readers-wanted-for-the-blobs-latest-climate-panic/>

[SEPP Comment: Some responses to the DOE's "A Critical Review of Impacts of Greenhouse Gas Emissions on the U.S. Climate."]

#HaveItBothWays: Chinese locusts

By John Robson, Climate Discussion Nexus, July 30, 2025

<https://climatediscussionnexus.com/2025/07/30/haveitbothways-chinese-locusts/>

Link to paper: **Thousand-year-long Chinese time series reveals climatic forcing of decadal locust dynamics**

By Leif Christian Stige, PNAS, Oct 9, 2007

<https://www.pnas.org/doi/full/10.1073/pnas.0706813104>

From abstract: Linking these records with temperature and precipitation reconstructions for the period 957-1956, we show that **decadal mean locust abundance is highest during cold and wet periods**. These periods coincide with above-average frequencies of both floods and droughts in the lower Yangtze River, phenomena that are associated with locust outbreaks. [Boldface added.]

“American Summers Are Starting to Feel Like Winter”

By Tony Heller, His Blog, July 26, 2025

<https://realclimatescience.com/2025/07/american-summers-are-starting-to-feel-like-winter/#gsc.tab=0>

“American Summers Are Starting to Feel Like Winter Extreme weather is keeping more people stuck inside.” - The Atlantic

Hysteria all the way from the bank

By John Robson, Climate Discussion Nexus, July 30, 2025

<https://climatediscussionnexus.com/2025/07/30/hysteria-all-the-way-from-the-bank/>

In a remarkable burst of irresponsible ignorance, a leading Canadian bank just warned major investment clients that a great wind will soon blow away their money. In a report Focus on Hurricanes Scotiabank, in its “CAPITAL THAT WORKS” “Focus On Series”, said “An Above-Normal Season Is on the Way – Equity Performance and Sector/Company Exposure”.

ARTICLES

1. Climate Regulation Liberation Day

The Trump EPA moves to repeal the Obama-Biden ‘endangerment’ finding.

By The Editorial Board, WSJ, July 29, 2025

https://www.wsj.com/opinion/epa-endangerment-finding-repeal-greenhouse-gases-obama-trump-steve-koonin-67fcb2ce?mod=hp_opin_pos_1

The editorial begins with:

“The Environmental Protection Agency on Tuesday declared Liberation Day from climate imperialism by moving to repeal the 2009 so-called endangerment finding for greenhouse gas emissions. This will make it harder for the feds to dictate what kind of car or lawn-mower you can buy, among other benefits.

EPA is proposing to undo what Congress never gave the agency the authority to do: Regulate greenhouse gases. The Clean Air Act authorizes the EPA to regulate pollutants such as ozone, particulate matter, sulfur dioxide and others that ‘may reasonably be anticipated to endanger public health or welfare.’

A 5-4 Supreme Court majority ruled in Massachusetts v. EPA (2007) that greenhouse gases could qualify as pollutants under a capacious reading of the law. Ergo, the EPA must regulate them if it finds they endanger the public. Thus arose the Obama 2009 endangerment finding that undergirds federal climate diktats.

The finding acknowledged scientific uncertainties about the effect of CO2 emissions on temperatures, extreme weather, allergies, diseases and more. But it cherry-picked studies to support the dubious proposition that greenhouse gases pose a clear and present danger to the public.

'There is some evidence that elevated carbon dioxide concentrations and climate changes can lead to changes in aeroallergens that could increase the potential for allergenic illnesses,' the finding states (our emphasis). There's also much evidence that CO2 has scant impact on allergies and health.

The Energy Department on Tuesday published a comprehensive analysis of climate science and its uncertainties by five outside scientists. One is Steven Koonin who served in the Obama Administration and is a contributor to these pages. The crucial point is that CO2 is different from the pollutants that Congress expressly authorized EPA to regulate.

Those pollutants 'are subject to regulatory control because they cause local problems depending on concentrations that include nuisances (odor, visibility), damage to plants, and, at high enough exposure levels, toxicological effects in humans,' the report notes. 'In contrast, CO2 is odorless, does not affect visibility and has no toxicological effects at ambient levels.'

In other words, higher levels of CO2 in the air from fossil fuels won't make you sick. This is a distinction Democrats elide when they claim that increases in CO2 will cause dirtier air. President Trump is 'making America smoggy again,' says California Gov. Gavin Newsom. This is disinformation. Greenhouse gas emissions don't cause smog.

This isn't to say that the climate isn't warming or that humans don't affect the climate. But the impact of CO2 on public welfare depends on its climate effects, which are uncertain and mediated by sundry other variables like cloud cover. With regulatory humility, EPA is acknowledging this and proposing to repeal the 2009 finding. Democrats are up in arms because the finding is a prerequisite for EPA to regulate CO2 emissions.

The Obama and Biden EPAs used the endangerment finding to justify electric-vehicle mandates and rules forcing the retirement of fossil-fuel fired power plants. Some progressives urged them to go further and regulate CO2 emissions from leaf blowers, lawn mowers and commercial buildings to help eliminate the use of fossil fuels.

The editorial discusses possible litigation then concludes with:

"Some Democrats say repealing the endangerment finding won't change anything because they inserted language in sections of the Inflation Reduction Act referring to greenhouse gas

emissions as “air pollutants.” But the IRA doesn’t require or authorize EPA to regulate greenhouse gases. Democrats couldn’t do so under budget reconciliation rules.

EPA Administrator Lee Zeldin and Energy Secretary Chris Wright deserve credit for not shrinking from this fight.”

2. Who Pays? AI Boom Sparks Fight Over Soaring Power Costs

Utilities and technology companies are at odds over who should pay for electricity costs in unprecedented data-center build-out

By Katherine Blunt, WSJ, July 29, 2025

https://www.wsj.com/business/energy-oil/ai-data-center-power-costs-bbfcd862?mod=energy-oil_more_article_pos1

In discussing the important question, the article begins with:

“Technology companies need an extraordinary amount of electricity to power data centers at the core of the artificial-intelligence race. They don’t want to foot the entire bill.

Across the U.S., utilities are asking tech companies including Google, Microsoft, and to pay more to connect their new data centers to the power grid. Utility officials are concerned that the cost of new power infrastructure needed to serve data-center demand could raise rates for regular customers.

Utilities are seeking assurance that tech companies will pay for any potential surplus if the AI boom spurs the development of more power lines and plants than U.S. data centers ultimately need.

The tech companies, meanwhile, say they are committed to paying their fair share of power costs, but that they shouldn’t have to pay substantially more for grid investments needed to serve them because some of those upgrades also benefit other customers.

U.S. power companies are already charging more to cover a surge in spending to upgrade the aging grid, address risks related to climate change and support drivers of power demand such as data centers and electric vehicles. Edison Electric Institute, an industry trade group, expects that utilities will invest nearly \$203 billion each year in 2025 and 2026, substantially more than any year since 2000, when the group began tracking spending.

In Virginia, which has the most data centers in the world, utility company Dominion Energy this year proposed a series of measures that would require data-center developers to commit to longer-term electricity contracts and agree to pay for certain amounts of power—even if they use less.

Dominion says the measures are necessary for an unprecedented build-out of data centers in the state, which serves 70% of the world’s internet traffic. By the end of last year, Dominion had received requests from data-center developers that would require 40 gigawatts of electricity, enough to power at least 10 million homes.”

The article discusses the heavy investments by both tech companies and power companies then concludes with:

“Dominion estimated that it will have to invest more than \$40 billion in the state over the next five years to serve data-center demand, meet clean-energy targets and complete other necessary work. That is roughly equal to the value of its entire system there.

‘We think this is the most important decision that’s being made in America about who pays for energy,’ said Chris Miller, president of the Piedmont Environmental Council, which advocates to protect smaller utility customers. ‘How do you make sure residential users aren’t being asked to subsidize these giant global corporations?’”