

# **The Week That Was: 2021-01-09 (January 9, 2021)**

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### **The Science and Environmental Policy Project**

**Quote of the Week:** *The right to search for the truth implies also a duty; one must not conceal any part of what one has recognized to be true.* – Albert Einstein. [H/t Michael Dourson]

**Number of the Week:** ~ [approximately] 2 times higher for July and ~ 6 times higher for August

#### **THIS WEEK:**

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

**Nine Essays – US National Climate Assessments:** The Office of Science and Technology Policy under David Legates has published nine information briefs on climate change from various scientists and scholars in North America. These briefs embody the view expressed by Einstein in the Quote of the Week: the weaknesses as well of the strengths of a concept must be expressed. The weaknesses to the view that carbon dioxide is the primary cause of climate change are not expressed by the UN Intergovernmental Panel on Climate Change (IPCC), particularly in its politicized Summary for Policymakers, and this pattern continues through its followers including the US National Assessments. A few of these important essays are discussed below.

In “Systematic Problems in the Four ‘National Assessments’ of Climate Change Impacts on the United States”, Pat Michaels gives an overview of these assessments and how major problems in the first one (2000) have continued through the last one (2018). This is a common problem in bureaucratic science. As new information shows previous concepts are mistaken, no one displays the courage to correct the erroneous concepts. The new information may be buried in hundreds of pages of other material or in little read appendices.

Michaels brings up a classic example (showing a 2017 graph by Christy and McNider) which uses the calculated results from 25 IPCC modeling groups used by the IPCC and compares their calculated pressure level temperature trends with observations from radiosondes (instruments on weather balloons). Only the Russian model (INM-CM4) was close to observations. A similar graph was buried in the last IPCC Assessment Report (AR-5, 2013).

Michaels also discusses research indicating that CO2 emissions are often greatly overestimated in climate studies and shows that the sensitivity of the climate to increasing CO2 is greatly overestimated by the National Climate Assessments. Thus, there are at least two problems, overestimates of CO2 emissions and overestimates of climate sensitivity to CO2. After stating that adding CO2 may be a net benefit, Michaels concludes:

*“The four ‘National Assessments’ of climate change impacts on the United States have dramatically overstated the effects of our changing climate, in large part because the climate models used have systematic biases coupled with over-estimates of the expected changes in lower atmospheric radiation resulting from human activities.”* See links under Challenging the Orthodoxy.

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**Nine Essays – Changing Sun:** In their essay, “The Sun-Climate Connection” Michael Connolly, Ronan Connolly and Willie Soon bring up how little we know about the history of climate change and its causes. Their opening paragraphs bear repeating:

*“Geological evidence shows that for billions of years, the world has gone through cycles of global warming and global cooling. Any cold period when permanent ice sheets exists in both polar regions is defined as an ‘Ice Age.’ According to this definition and because ice sheets exist in both Greenland and Antarctica, the Earth is currently in an ice age but in a relatively mild period called an ‘interglacial period,’ which is not as extreme as the ‘glacial periods’ that we typically think of when we think of ‘Ice Ages’.*

*“Geological records indicate that five major ice ages existed during the last 2.5 billion years starting with the Huroian ice age (from 2.4 until 2.1 billion years ago) and ending with the present one called the Quaternary (from 2.6 million years ago until the present). Warm periods, when there were no large areas of permanent ice present on the Earth, are sometimes called ‘greenhouse (or hothouse) periods.’ From geological evidence, the Earth has been in a ‘greenhouse period’ about 85% of the time.*

*“Since ice ages were discovered nearly 200 years ago, various theories have been put forward to explain these cycles in the Earth’s surface temperature. Most of these theories consist of various combinations of two main hypotheses – changes in the amount of sunlight reaching the top of the Earth’s atmosphere or changes in the Earth’s atmosphere, which alters the balance between the amount of sunlight that reaches the Earth’s surface and the amount of heat energy that radiates out to space.”*

Recognizing that we are in a brief warm period between glaciations in the Quaternary Period which is an ice age demonstrates that the claims that the current warming is unprecedented are frivolous and wrong. [The Younger Dryas which ended the Pleistocene Epoch about 11,600 years ago had a far more drastic warming rate.]

In discussing the first hypothesis that current climate change is the result of changes in the amount of sunlight reaching the Earth’s atmosphere, the authors bring up the important concept of Total Solar Irradiance (TSI). This is the total amount of energy arriving at the top of the atmosphere. By two different means, our forebears of the late 1800s were able to infer the TSI, but not with the precision available in the satellite era starting in the 1970s. Even in the satellite era, there is a major disagreement as to whether there there been a negative trend in TSI or a positive trend occurring in the 1980s & 90s.

Researchers trying to explain climate change prior to the satellite era need to consider proxies for TSI such as sunspot numbers, sunspot sizes, etc. The authors discuss that this is being done going back over the past 150 years. The authors state there are many different plausible TSI reconstructions and discuss eight of the estimates.

In discussing the second hypothesis that changes in the earth’s atmosphere have altered the balance between the amount of sunlight that reaches the Earth’s surface and the amount of heat energy that radiates out to space, the authors bring up changes in greenhouse gases and changes in the concentration of tiny airborne particles called aerosols.

The authors give a good overview of the development of the greenhouse effect concept and some of the errors made. A major on-going issue is the Urban Heat Island Effect (UHI) in which temperatures measured in or near population centers, which may give a strong bias to overall surface temperature measurements. In addressing the two hypotheses the authors conclude:

*“Which of the two competing explanations is correct, or are they both wrong? Many nonscientists assume that the scientific process is linear, and science always moves forward. That is, scientists find an answer to one problem and then move on to the next. Science is much messier as, unlike common sense, science is not intuitive. Scientists analyzing the same data can often arrive at different conclusions. New data and insights are constantly revising our previous understanding. Thus, we encourage you to dig deeper and ask questions.”*

See links under Challenging the Orthodoxy.

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**Nine Essays – General Circulation (The Weather Machine?):** Professor of Atmospheric Science Anthony Lupo discusses “Climate, Climate Change, and the General Circulation.” His opening paragraphs bear repeating:

*“Climate change is one of the pre-eminent issues that is driving agricultural, private sector, and governmental decision making on the time scale of a few years to a few decades. There is little disagreement among scientists that climate does change on a variety of timescales both preferred (e.g., cyclical) and extemporaneous. Climate has changed over time since the Earth has had an atmosphere and ocean. Climate scientists agree that climate change is primarily reflected as regional inhomogeneities versus being globally uniform. However, there is some disagreement regarding whether climate change is primarily driven by external factors versus the internal dynamics of the Earth-Atmosphere (EA) system.*

*“Many scientists state that external forcing drives the climate. This is primarily expressed in the idea of examining the balance of energy leaving our EA system versus that coming into the EA system. In this view, carbon dioxide is like a control knob that regulates the balance of incoming versus outgoing radiation. In other words, current changes in climate have been driven by atmospheric changes in carbon dioxide concentration, and the forcing is amplified by positive feedbacks. Other scientists state that the EA system is a complex physical system in which internal dynamics and their complicated behaviors will cause climate to change on discrete timescales. They believe climate is not static and that the influence of carbon-dioxide is either relatively small compared to natural cycles or projects onto the internal dynamics.*

*“Weather is the day-to-day state of the atmosphere and can be represented by measurements taken instantaneously. Climate, on the other hand, is the time mean state of the atmosphere along with higher order statistics that measure variability. The most common time interval used for global climate is 30 years. Climate change is simply the change in the statistical character of climate over a period greater than 30 years. The general circulation is defined as the large-scale structure of the atmosphere over time scales of 15 days to less than 10 years. Thus, like climate, the general circulation can be viewed as the statistical compilation of the weather. Also, like climate, the general circulation is driven largely by the character of the underlying surface. In turn, the character of the general circulation can influence the predominant weather of a given location on the time scale of two weeks to a few years.”*

Lupo presents an idealized form of general circulation which is extraordinarily complex and varies significantly. Lupo discusses variations in the tropics, midlatitudes and polar regions. He concludes with:

*“The general circulation of the atmosphere is the compilation of weather over seasonal to interannual timescales and in turn can influence the occurrence of weather on these same timescales. The general circulation like climate is driven by the character of the underlying land and ocean surface.*

*“During the 20th century, surface and atmospheric temperatures have warmed globally, but less so in the tropics versus the Arctic. Associated changes in the general circulation have occurred that are physically consistent with a warmer climate, such as the poleward shift of certain general circulation features. However, for other phenomena, trends in their character are difficult to identify due to a larger magnitude in interannual and interdecadal variability or differences in criterion used to identify them. For the general circulation phenomena surveyed here, there is generally low confidence and/or a weak consensus in future climate model scenarios. These are also in general consistent with the observations published by the IPCC.”*

See links under Challenging the Orthodoxy.

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**Nine Essays – Other:** Other essays consider topics that have been discussed in TWTW over the past year. William Happer discusses Radiation Transfer, an important subject that has been and will continue to be discussed in TWTW. Ryan Maue discusses hurricanes and climate change; for which there is no significant increase, despite the artificial effect of NOAA naming once insignificant storms.

John Christy discusses the US temperature record, emphasizing that low (minimum) temperatures have increased but high (maximum) temperatures have not. Further, the hottest decade (maximum daily temperature) in the US was the 1930s, a fact that has been disguised by NOAA and NASA-GISS. These agencies have modified the annual and monthly data to minimize the 1930s warm period. The daily maximum temperatures are not modified, as of now. Thus, claims that increasing high temperatures will destroy US agriculture, drive animals to extinction, etc. have little evidence them up. Ross McKittrick addresses the false “Climate Emergency” which does not exist.

Roy Spencer states that the claim that humans are causing dangerous climate change is a matter of faith, because there is little or no evidence to reach that conclusion. In his conclusion and summary, he states:

*“These facts show that the hypothesis that humans have caused most, or all recent warming involves a large measure of faith.*

*“As a result of the very large uncertainties in the energy flows in and out of the climate system, climate modelers adjust their computer models to not produce any internal “natural” climate change. This is the basis of their faith: That only humans can cause climate change.*

*“These model adjustments are necessary anyway because a climate model cannot be constructed from first physical principles and exhibit energy balance; it must be “tuned”. The energy imbalance allegedly causing global warming is too small (0.8 Watts per sq. meter) to measure with any of our existing instrumentation, and certain aspects of the climate system (e.g., clouds,*

*the efficiency of precipitation systems, etc.) are not understood well enough to accurately represent in models.*

*“These uncertainties are part of the reason why, even after 30 years, climate models are unable to agree with each other to even a factor of 3 regarding just how much warming will result from adding CO<sub>2</sub> to the atmosphere.*

*“Summary*

- The global energy imbalance responsible for recent warming is much less than the **uncertainty in our knowledge** of natural energy flows.*
- As a result, climate change could be mostly “natural”, and **we would not know it**.*
- Climate models must be adjusted to not produce any “natural” climate change, which the modelers simply **believe** does not exist.*
- Despite their **belief**, there is abundant evidence of past natural climate change events, the causes of which are **largely unknown**.” [Boldface added]*

One essay that will be discussed next week is “Can Computer Models Predict Climate?” by Christopher Essex. It requires a more detailed presentation than appropriate for this week.

These essays demonstrate that climate change is complex. Or put differently, if someone says climate change is simple physics, do not buy. See links under Challenging the Orthodoxy.

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**Transparency:** One of the fundamental principles of the scientific method is free and open testing of a concept or hypothesis against physical evidence to understand its strengths and weaknesses. Unfortunately, those who object to open evidence to support their desired regulation often have something to hide from those who suffer the burden of regulation.

This week, EPA Administrator Andrew Wheeler announced rules internal to the EPA on transparency regarding data used in dose-response studies. These rules state that the EPA will give priority to studies in which the public can review the data used in making new regulations. They are a step forward in making significant data publicly available. These rules do not apply to past studies or regulations where the EPA used highly questionable linear-no threshold models as the basis for regulations. These latter models can lead to absurd results. For example, people can die from drinking too much water at one time, therefore drinking a glass of pure water can be deadly to some people.

The new rules are based on the principle that the public has a right to know why the EPA is establishing certain regulations, however the principle will apply only to future regulations. They do not eliminate the use of “secret science” but establish a procedure for the administrator to use his discretion. These rules make the administrator accountable for such actions, where today he is not.

It is important to realize that EPA is both a regulatory agency and a scientific one. By contrast, scientific agencies such as NOAA and NASA are not regulatory. By hiding or disguising its justifications for regulations the EPA gives the appearance of being arbitrary, even when it is not.

Of course, articles in the press ranging from the *Wall Street Journal* to the *New York Times* (NYT) misrepresented the new rules with the NYT declaring “A Plan Made to Shield Big Tobacco From Facts Is Now E.P.A. Policy.” How transparency shields industry from facts only the NYT knows.

TWTW has been critical of EPA science, particularly its “secret science.” On balance, after reviewing many of the documents and statements by the EPA and others TWTW considers the new rules an important step forward in EPA rule making. If studies find a real health issue, the public should be fully informed about the what and the how, not simply told that “experts” have decided this. The real issue is the competence of the studies. See Article # 1 and EPA and other Regulators on the March.

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**Number of the Week: ~ [approximately] 2 times higher for July and ~6 times higher for August.** Susan Crockford brings our attention to the newly issued Arctic Report Card by NOAA (ARC). The section on “Dramatic increase in ocean primary productivity” reads:

*The strong interannual variability in spatial patterns of SST [Sea Surface Temperature] bears a close relationship to early summer sea ice concentrations because the regions of low sea ice area allow more direct solar heating of the exposed surface waters. August mean SSTs show statistically significant warming trends for 1982-2020 in most regions of the Arctic Ocean that are ice-free in August. Also tied to sea ice and ocean temperature conditions is productivity at the bottom of the marine food web. During July and August 2020, a ~600 km long region in the Laptev Sea of the Eurasian Arctic showed much higher primary productivity (~2 **times higher for July and ~6 times higher for August**) than the same months of the 2003-2019 multiyear average. [Boldface added]*

This is one region, but:

*“The population size of bowheads [whales almost exclusive to the Arctic and subarctic] in the Pacific Arctic has increased in the past 30 years likely due to increases in ocean primary production as well as the northward transport of the zooplankton on which they feed.”*

Less summer Arctic ice may be benefiting many types of animals in the Arctic. Less summer ice is largely due to fall and spring temperatures being warmer, resulting in less thick ice.

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### 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](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/>

Summary: <https://www.heartland.org/media-library/pdfs/CCR-IIb/Summary-for-Policymakers.pdf>

#### **Climate Change Reconsidered II: Fossil Fuels**

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

<http://store.heartland.org/shop/ccr-ii-fossil-fuels/>

Download with no charge:

<http://climatechangereconsidered.org/wp-content/uploads/2019/01/Climate-Change-Reconsidered-II-Fossil-Fuels-FULL-Volume-with-covers.pdf>

### **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/>

Download with no charge:

<https://www.heartland.org/policy-documents/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](http://www.sepp.org/publications/nipcc_final.pdf)

### **Global Sea-Level Rise: An Evaluation of the Data**

By Craig D. Idso, David Legates, and S. Fred Singer, Heartland Policy Brief, May 20, 2019

[https://www.heartland.org/\\_template-assets/documents/publications/SeaLevelRiseCCRII.pdf](https://www.heartland.org/_template-assets/documents/publications/SeaLevelRiseCCRII.pdf)

### ***Challenging the Orthodoxy***

#### **White House Brochures on Climate (There is no climate crisis)**

By Roy Spencer, His Blog, Jan 8, 2021

<https://www.drroyspencer.com/2021/01/white-house-brochures-on-climate-there-is-no-climate-crisis/>

and

#### **The Climate Change Flyers**

By numerous scientists, Office of Science and Technology Policy, Via Center for Environmental Research and Earth Sciences (CERES), Accessed Jan 9, 2021

[https://www.ceres-science.com/content/climate\\_change\\_flyers.html](https://www.ceres-science.com/content/climate_change_flyers.html)

#### **After 100 years of climate change, ‘climate related deaths’ approach zero**

By Anthony Watts, Climate Realism, Jan 2, 2021

<https://climateréalism.com/2021/01/after-100-years-of-climate-change-climate-related-deaths-approach-zero/>

#### **Causation Of Climate Change, And The Scientific Method**

By Francis Menton, Manhattan Contrarian, Jan 2, 2021

<https://www.manhattancontrarian.com/blog/2021-1-2-causation-of-climate-change-and-the-scientific-method>

#### **Letter to UK Minister of State (Minister for Business, Energy and Clean Growth)**

By Alastair Gray, Via WUWT, Jan 7, 2021

<https://wattsupwiththat.com/2021/01/07/letter-to-uk-minister-of-state-minister-for-business-energy-and-clean-growth/>

### *Defending the Orthodoxy*

#### **Climate change taking toll on Oregon, but state has many options for adaptation**

By Steve Lundeberg, Oregon State University, Jan 6, 2020 [H/t Bernie Kepshire]

<https://phys.org/news/2021-01-climate-toll-oregon-state-options.html>

Link to report: Oregon Climate Assessment

Dalton, M.M., and E. Fleishman, editors, Oregon Climate Change Research Institute, 2021

<https://blogs.oregonstate.edu/occri/oregon-climate-assessments/>

“Temperature. Oregon’s annual average temperature increased by about 2.2°F per century since 1895. If greenhouse gas emissions continue at current levels, temperature in Oregon is projected to increase on average by 5°F by the 2050s and 8.2°F by the 2080s, with the greatest seasonal increases in summer.”

[SEPP Comment: *Nothing like computers to make predictions 60 years hence to one-tenth of a degree!*]

#### **Is Humankind Completely Liable for Global Warming? Here's What Experts Think**

By Stephanie Osmanski, Green Matters, Jan 6, 2021 [H/t WUWT]

<https://www.greenmatters.com/p/climate-change-caused-by-humans>

### *Questioning the Orthodoxy*

#### **Causation Of Climate Change: Was The Medieval Warm Period "Regional"?**

By Francis Menton, Manhattan Contrarian, Jan 3, 2021

<https://www.manhattancontrarian.com/blog/2021-1-3-causation-of-climate-change-was-the-medieval-warm-period-regional>

#### **The Case for Keeping Our Cool**

By John Robson, Climate Discussion Nexus, Jan 3, 2021

<https://climatediscussionnexus.com/videos/dont-panic/>

Video addressing “We are out of time to think”

#### **Taming Climate Change: Capitalism at Work (market adaptation, not government mitigation)**

By Robert Bradley Jr., Master Resource, Jan 5, 2021

<https://www.masterresource.org/debate-issues/climate-deaths-statistics/>

“Is the *human environment* better because of increasing atmospheric concentrations of carbon dioxide (CO<sub>2</sub>) from the usage of carbon-based energies? The answer is a resounding *yes*. That is triumphant news, whether the human influence on climate is net ‘bad’ or net ‘good’ by a physical, stasis metric.”

#### **2020 hindsight**

By John Robson, Climate Discussion Nexus, Jan 6, 2021

<https://climatediscussionnexus.com/2021/01/06/2020-hindsight/>

“Speaking of the mainstream, we also want to emphasize that organizations like the UN’s Intergovernmental Panel on Climate Change have not, at least in their more serious scientific publications, said what so many activists and politicians claim they have said. **The Summaries for Policymakers are somewhat suspicious, not least because they are not just written for but by policymakers, often without any real scientific scrutiny.**” [Boldface Added]

### *Change in US Administrations*

#### **Control of Senate allows Democrats to act on Biden’s climate change agenda**

By Emma Newburger, CNBC, Jan 6, 2021

<https://www.cnbc.com/2021/01/06/democratic-control-of-senate-is-victory-for-biden-climate-change-agenda.html>

### **Trump's Final Moves Complicate Biden's Climate Goals**

By H. Sterling Burnett, The Heartland Institute, Jan 7, 2021

<https://www.heartland.org/news-opinion/news/trumps-final-moves-complicate-bidens-climate-goals>

*[SEPP Comment: Climate Change Weekly # 384 with other subjects.]*

### **Biden Climate Team Says It Underestimated Trump's Damage**

Agency reviews have found greater budget cuts, staff losses and elimination of climate programs than initially thought

By Adam Aton, E&E News, Via Scientific American, Jan 6, 2021

<https://www.scientificamerican.com/article/biden-climate-team-says-it-underestimated-trumps-damage/>

“Potentially lowering expectations for the incoming president’s early climate efforts, Biden officials say their agency review teams have found deeper budget cuts, wider staff losses and more systematic elimination of climate programs and research than they realized.”

### **Despite denials, count on Biden-Harris to direct AG to do their scandalous bidding**

By Chris Horner, Washington Times, Jan 3, 2021

<https://www.washingtontimes.com/news/2021/jan/3/despite-denials-count-on-biden-harris-to-direct-ag/>

### ***Problems in the Orthodoxy***

#### **Climate crisis will cause falling humidity in global cities – study**

Research says planting trees in urban areas could mitigate rising temperatures

By Weronika Strzyżyńska, the Guardian, Jan 4, 2021 [H/t Bernie Kepshire]

[Climate crisis will cause falling humidity in global cities – study | Climate change | The Guardian](#)

Global multi-model projections of local urban climates

By Lei Zhao, et al. Nature Climate Change, Jan 4, 2021

[Global multi-model projections of local urban climates | Nature Climate Change](#)

*[SEPP Comment: Contradicting the Charney Report that increasing temperatures will significantly increase water vapor (humidity).]*

#### **Analysis: Which countries met the UN's 2020 deadline to raise 'climate ambition'?**

By Josh Gabbatiss, Carbon Brief, Jan 8, 2021

[https://www.carbonbrief.org/analysis-which-countries-met-the-uns-2020-deadline-to-raise-climate-](https://www.carbonbrief.org/analysis-which-countries-met-the-uns-2020-deadline-to-raise-climate-ambition?utm_campaign=Carbon%20Brief%20Weekly%20Briefing&utm_content=20210108&utm_medium=email&utm_source=Revue%20newsletter)

[ambition?utm\\_campaign=Carbon%20Brief%20Weekly%20Briefing&utm\\_content=20210108&utm\\_medium=email&utm\\_source=Revue%20newsletter](#)

“After a year disrupted by the Covid-19 pandemic, nations representing only around 28% of global emissions registered new or updated “nationally determined contributions” (NDCs) on the UN’s official registry by the end of the year.”

#### **Analysis: Which countries met the UN's 2020 deadline to raise 'climate ambition'?**

By Josh Gabbatiss, Carbon Brief, Jan 8, 2021

[https://www.carbonbrief.org/analysis-which-countries-met-the-uns-2020-deadline-to-raise-climate-ambition?utm\\_campaign=Carbon%20Brief%20Weekly%20Briefing&utm\\_content=20210108&utm\\_medium=email&utm\\_source=Revue%20newsletter](https://www.carbonbrief.org/analysis-which-countries-met-the-uns-2020-deadline-to-raise-climate-ambition?utm_campaign=Carbon%20Brief%20Weekly%20Briefing&utm_content=20210108&utm_medium=email&utm_source=Revue%20newsletter)

### ***Seeking a Common Ground***

#### **Changing Climate Debate History**

By Andy May, WUWT, Jan 6, 2021

<https://wattsupwiththat.com/2021/01/06/changing-climate-debate-history/>

### **Going hot and cold**

By John Robson, Climate Discussion Nexus, Jan 6, 2021

<https://climatediscussionnexus.com/2021/01/06/going-hot-and-cold/>

### ***Science, Policy, and Evidence***

#### **Was that a great lockdown or what?**

By John Robson, Climate Discussion Nexus, Jan 6, 2021

<https://climatediscussionnexus.com/2021/01/06/was-that-a-great-lockdown-or-what/>

### ***Review of Recent Scientific Articles by CO2 Science***

#### **The Combined Impact of CO2 and Nutrient Supply on Orchid Flowering Quality**

Cho, A.R., Choi, S.H. and Kim, Y.J. 2020. Flowering and photosynthetic responses of *Phalaenopsis* under elevated CO2 and nutrient supply. *Horticultural Science and Technology* 38: 595-607. Jan 8, 2021

<http://www.co2science.org/articles/V24/jan/a3.php>

#### **The Photosynthetic Response of Eggplant to CO2 Enrichment**

Xu, X., Wu, P., Song, H., Zhang, J., Zheng, S., Xing, G., Hou, L. and Li, M. 2020. Identification of candidate genes associated with photosynthesis in eggplant under elevated CO2. *Biotechnology & Biotechnological Equipment* 34: 1166-1175. Jan 4, 2021

<http://www.co2science.org/articles/V24/jan/a1.php>

#### **A CO2-induced Mechanism for Alleviating Growth Restrictions in Phosphorus-limited Ecosystems**

Keane, J.B., Hoosbeek, M.R., Taylor, C.R., Miglietta, F., Phoenix, G.K. and Hartley, I.P. 2020. Soil C, N and P cycling enzyme responses to nutrient limitation under elevated CO2. *Biogeochemistry*, doi.org/10.1007/s10533-020-00723-1. Dec 30, 2020

<http://www.co2science.org/articles/V23/dec/a12.php>

“And so it is that rising atmospheric CO2 is helping plants escape P limitation via a synergistic relationship, where rising CO2 increase plant carbon cycling in the soil, which in turn stimulates microbial investment in P-cycle enzymes and ultimately increases soil P availability in order to sustain greater ecosystem productivity and growth.”

### ***Models v. Observations***

#### **Surprising News: Drylands Are Not Getting Drier**

New Columbia Engineering study—first to investigate the long-term effect of soil moisture-atmosphere feedbacks in drylands—finds that soil moisture exerts a negative feedback on surface water availability in drylands, offsetting some of the expected decline

By Holy Evarts, Columbia Engineering, Jan 4, 2021 [H/t WUWT]

<https://www.engineering.columbia.edu/press-releases/gentine-drylands-not-getting-drier>

Link to paper: Soil moisture–atmosphere feedbacks mitigate declining water availability in drylands

By Sha Zhou, et al. Nature Climate Change, Jan 4, 2021

<https://www.nature.com/articles/s41558-020-00945-z>

### ***Model Issues***

#### **Climate Injustice**

By David Kreutzer, Institute of Energy Research, Jan 6, 2021

<https://www.instituteforenergyresearch.org/climate-change/climate-injustice/>

#### **Claim: AI Will Help Solve Climate Change**

By Eric Worrall, WUWT, Jan 4, 2021

[Claim: AI Will Help Solve Climate Change – Watts Up With That?](#)

*[SEPP Comment: The author Worrall comments on displays typical ignorance of the logarithmic relationship between CO2 and temperatures. Artificial intelligence cannot solve ignorance.]*

#### **New data-driven global climate model provides projections for urban environments**

Press Release, University of Illinois at Urbana-Champaign, News Bureau, Jan 4, 2021

<https://www.sciencedaily.com/releases/2021/01/210104114105.htm>

Link to paper: Global multi-model projections of local urban climates

By Lei Zhao, et al. Nature Climate Change, Jan 4, 2021

<https://www.nature.com/articles/s41558-020-00958-8>

### ***Measurement Issues -- Surface***

#### **Big Chill Over Land and Sea with 2020 End**

By Ron Clutz, Science Matters, Jan 8, 2021

<https://rclutz.wordpress.com/2021/01/08/big-chill-over-land-and-sea-with-2020-end/>

#### **CET 2020**

By Paul Homewood, Not a Lot of People Know That, Jan 2, 2021

<https://notalotofpeopleknowthat.wordpress.com/2021/01/02/cet-2020/>

“Central England Temperature Series 1659-2020”

#### **Germany’s DWD Weather Service Annuls All-Time Heat Record, Concedes Station Siting Problems**

By P Gosselin, No Tricks Zone, Jan 8, 2021

<https://notrickszone.com/2021/01/08/germanys-dwd-weather-service-annuls-all-time-heat-record-concedes-station-siting-problems/>

#### **Scientists who say (2)**

By John Robson, Climate Discussion Nexus, Jan 6, 2021

<https://climatediscussionnexus.com/2021/01/06/scientists-who-say-2/>

Link to paper: A Statistical Analysis of Multiple Temperature Proxies: Are Reconstructions of Surface Temperatures Over the Last 1000 Years Reliable?

By Blakeley McShane and Abraham Wyner, The Annals of Applied Statistics, 2011

[https://projecteuclid.org/download/pdfview\\_1/euclid.aoas/1300715170](https://projecteuclid.org/download/pdfview_1/euclid.aoas/1300715170)

*[SEPP Comment: Weak signal and large uncertainty.]*

## **Sayonara To Warming: Tokyo, Hachijō-jima Mean Annual Temperatures Continue COOLING Trend**

By Kirye and Pierre Gosselin, No Tricks Zone, Jan 2, 2021

<https://notrickszone.com/2021/01/02/sayonara-to-warming-tokyo-hachijo-jima-mean-annual-temperatures-continue-cooling-trend/>

*[SEPP Comment: A commentator questions the varying start date of the data.]*

### **Measurement Issues -- Atmosphere**

#### **Global Temperature Report**

By Staff, Earth System Science Center, University of Alabama in Huntsville, Jan 4, 2021

<https://www.nsstc.uah.edu/climate/>

December 2020 Lower Troposphere Map

[https://www.nsstc.uah.edu/climate/2020/december2020/202012\\_map.png](https://www.nsstc.uah.edu/climate/2020/december2020/202012_map.png)

Dec 1979 to Dec 2020 Trend, Lower Troposphere

[https://www.nsstc.uah.edu/climate/2020/december2020/2020\\_GL\\_42yr\\_Trend.PNG](https://www.nsstc.uah.edu/climate/2020/december2020/2020_GL_42yr_Trend.PNG)

2020 Lower Troposphere Anomaly

[https://www.nsstc.uah.edu/climate/2020/december2020/2020\\_LT.png](https://www.nsstc.uah.edu/climate/2020/december2020/2020_LT.png)

Graph, Dec 1978 to Dec 2020

[https://www.nsstc.uah.edu/climate/2020/december2020/202012\\_bar.png](https://www.nsstc.uah.edu/climate/2020/december2020/202012_bar.png)

“2020 ended up as the 2nd warmest year with a departure from the 1981-2010 average of +0.49 °C (+0.88 °F) just behind 2016 with +0.53 °C (+0.95 °F) and just ahead of 1998 which had +0.48 °C (+0.86 °F). Considering the uncertainty of the measurements, these three years could be considered as tied for the warmest year of the 42-year record.”

#### **A Response To “A CO2 Oddity”**

By Joe Bastardi, WUWT, Jan 8, 2021

<https://wattsupwiththat.com/2021/01/08/a-response-to-a-co2-oddity/>

“The warmer the oceans, the more CO2 released.”

*[SEPP Comment: In addition to discussing the relationship between CO2 and ocean temperatures, Bastardi brings up the difference between believing and knowing.]*

### **Changing Weather**

#### **How wildfires in the Americas and tropical Africa in 2020 compared to previous years**

By Staff, Copernicus, Atmosphere Monitoring Service, Dec 14, 2020

<https://atmosphere.copernicus.eu/how-wildfires-americas-and-tropical-africa-2020-compared-previous-years>

2020 has been a year of extremes when it comes to wildfires. The Arctic and US saw record high levels of activity during the summer, whilst Canada and tropical Africa saw record lows. These lows have contributed to 2020 so far being one of the least active years since Copernicus Atmosphere Monitoring Service (CAMS\*) records begin in 2003.

*[SEPP Comment: An extreme low in fires?]*

#### **North Pacific "Hurricanes"**

By Cliff Mass, Weather Blog, Jan 6, 2021

<https://cliffmass.blogspot.com/2021/01/north-pacific-hurricanes.html>

#### **Record cold weather in China sends power demand through the roof**

By Muyu Xu, Shivani Singh, Reuters, Jan 8, 2021

<https://www.reuters.com/article/us-china-weather-energy-transportation/record-cold-weather-in-china-sends-power-demand-through-the-roof-idUSKBN29D104>

### **Record Low Temperature In Spain Today**

By Paul Homewood, Not a Lot of People Know That, Jan 6, 2021

<https://notalotofpeopleknowthat.wordpress.com/2021/01/06/record-low-temperature-in-spain-today/>

### ***Changing Climate***

#### **Climate change caused mangrove collapse in Oman [6,000 years ago]**

Study points to sudden decrease of precipitation as cause

Research News, University of Bonn, Jan 5, 2021 [H/t WUWT]

[https://www.sciencedaily.com/releases/2021/01/210105130131.htm#:~:text=A%20current%20study%20now%20sheds,disappeared%20about%206%2C000%20years%20ago.&text=Mangroves%20like%20a%20warm%20climate,C%20\(75%C2%B0F\).](https://www.sciencedaily.com/releases/2021/01/210105130131.htm#:~:text=A%20current%20study%20now%20sheds,disappeared%20about%206%2C000%20years%20ago.&text=Mangroves%20like%20a%20warm%20climate,C%20(75%C2%B0F).)

Link to paper: Collapse of Holocene mangrove ecosystems along the coastline of Oman

By Valeska Decker, et al. Cambridge University Press, Dec 29, 2020

<https://www.cambridge.org/core/journals/quaternary-research/article/abs/collapse-of-holocene-mangrove-ecosystems-along-the-coastline-of-oman/4F7CE82268B8F022774E695F6DB22F79>

From the abstract: "...The ecosystem collapse was not caused by sea-level variation or anthropogenic interferences; rather, it was the consequence of reduced precipitation values related to a southward shift of the Intertropical Convergence Zone."

#### **Drought of the century in the Middle Ages - with parallels to climate change today?**

By Staff Writers, Leipzig, Germany (SPX), Jan 06, 2021

[https://www.terraviva.com/reports/Drought\\_of\\_the\\_century\\_in\\_the\\_Middle\\_Ages\\_with\\_parallels\\_to\\_climate\\_change\\_today\\_999.html](https://www.terraviva.com/reports/Drought_of_the_century_in_the_Middle_Ages_with_parallels_to_climate_change_today_999.html)

Link to paper: A prequel to the Dantean Anomaly: the precipitation seesaw and droughts of 1302 to 1307 in Europe

By Martin Bauch, et al. Climate of the Past, Nov 25, 2020

<https://cp.copernicus.org/articles/16/2343/2020/>

### ***Changing Seas***

#### **Number Of Global Wild Fires Trending Down Since 2003. Northern Ocean Heat Content Drops Since 2010**

By P Gosselin, No Tricks Zone, Jan 3, 2020

<https://notrickszone.com/2021/01/03/number-of-global-wild-fires-trending-down-since-2003-northern-ocean-heat-content-drops-since-2010/>

#### **Huge Database Of Studies Documenting Meters-Higher Mid-Holocene Sea Levels Swells Again In 2020**

By Kenneth Richard, No Tricks Zone, Jan 4, 2021

<https://notrickszone.com/2021/01/04/huge-database-of-studies-documenting-meters-higher-mid-holocene-sea-levels-swells-again-in-2020/>

### ***Changing Cryosphere – Land / Sea Ice***

#### **Arctic report card 2020 highlights the huge benefit of less summer sea ice: more food**

By Susan Crockford, Polar Bear Science, Jan 7, 2021 [H/t WUWT]

<https://polarbearsience.com/2021/01/07/arctic-report-card-2020-highlights-the-huge-benefit-of-less-summer-sea-ice-more-food/>

Link to report: Arctic Report Card: Update for 2020

The sustained transformation to a warmer, less frozen and biologically changed Arctic remains clear

By R. L. Thoman, J. Richter-Menge, and M. L. Druckenmiller, NOAA, Dec 7, 2020

<https://arctic.noaa.gov/Report-Card/Report-Card-2020/ArtMID/7975/ArticleID/899/Executive-Summary>

“Consistent with past ARCs, across the ARC2020 essays runs the theme of variability, both in time and place. While sometimes referred to as ‘the new normal,’ in reality, most parts of the Arctic environmental system are continuing to change very rapidly, with each ARC providing a snapshot of ‘where things are now.’ As the past 15 years of ARCs have vividly demonstrated, the Arctic of yesterday is different from today, and the Arctic of today is not predictive of tomorrow.”

### **Arctic Ice Year-End 2020**

By Ron Clutz, Science Matters, Jan 4, 2021

<https://rclutz.wordpress.com/2021/01/04/arctic-ice-year-end-2020/>

“These data show a noisy, highly variable natural phenomenon. Clearly, unpredictable factors are in play, principally water structure and circulation, atmospheric circulation regimes, and also incursions and storms. And in the longer view, today’s extents are not unusual.”

### **Very Inconvenient Alps Glacier History...Top Glaciologists: Alps Were Ice-Free 6000 Years Ago**

By P Gosselin, No Tricks Zone, Jan 6, 2021

<https://notrickszone.com/2021/01/06/very-inconvenient-alps-glacier-history-top-glaciologists-alps-were-ice-free-6000-years-ago/>

### **New tool for reconstructing ancient sea ice to study climate change**

News Release, Brown University, Jan 4, 2021 [H/t Bernie Kepshire]

<https://www.sciencedaily.com/releases/2021/01/210104131950.htm>

Link to paper: Group 2i Isochrysidales produce characteristic alkenones reflecting sea ice distribution

By Karen Jiayi Wang, et al. Nature Communications, Jan 4, 2021

<https://www.nature.com/articles/s41467-020-20187-z>

### ***Changing Earth***

#### **Mapping the global threat of land subsidence**

By Gerardo Herrera-García, et al. Science, Jan 1, 2021 [H/t Bernie Kepshire]

<https://science.sciencemag.org/content/371/6524/34>

#### **Deep-sea volcanoes: Windows into the subsurface**

Underwater volcanoes reveal complexity of seafloor's microbial life

Research News, NSF, Jan 5, 2021

[https://www.nsf.gov/discoveries/disc\\_summ.jsp?cntn\\_id=301869&WT.mc\\_id=USNSF\\_1](https://www.nsf.gov/discoveries/disc_summ.jsp?cntn_id=301869&WT.mc_id=USNSF_1)

Link to paper: Complex subsurface hydrothermal fluid mixing at a submarine arc volcano supports distinct and highly diverse microbial communities

By Anna-Louise Reysenbach, et al. PNAS, Dec 22, 2020

<https://www.pnas.org/content/117/51/32627>

“Submarine volcanoes account for ~75% of global volcanic activity...”

### **Modern microbes provide window into ancient ocean**

News Release, University of Colorado at Boulder, Jan 6, 2021 [H/t WUWT]

[https://www.eurekaalert.org/pub\\_releases/2021-01/uoca-mmp010421.php](https://www.eurekaalert.org/pub_releases/2021-01/uoca-mmp010421.php)

“These single-celled, photosynthetic organisms, also known as ‘blue-green algae,’ can be found in almost any large body of water today. But more than 2 billion years ago, they took on an extra important role in the history of life on Earth: During a period known as the ‘Great Oxygenation Event,’ ancient cyanobacteria produced a sudden, and dramatic, surge in oxygen gas.”

### ***Lowering Standards***

#### **BBC Christmas Lecture–The Only Thing Missing Was Greta!**

By Paul Homewood, Not a Lot of People Know That, Jan 8, 2021

<https://notalotofpeopleknowthat.wordpress.com/2021/01/04/bbc-christmas-lecture-the-only-thing-missing-was-greta/>

#### **BBC Urges NYT to Correct “Misleading” Coronavirus Article**

By Eric Worrall, WUWT, Jan 4, 2021

<https://wattsupwiththat.com/2021/01/06/bbc-urges-nyt-to-correct-misleading-coronavirus-article/>

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

#### **Blowing in the wind**

By John Robson, Climate Discussion Nexus, Jan 6, 2021

<https://climatediscussionnexus.com/2021/01/06/blowing-in-the-wind/>

### ***Communicating Better to the Public – Make things up.***

#### **Use of ocean resources changed as Dungeness crab fishing industry adapted to climate shock event**

By Michelle Klampe, Oregon State University, Jan 5, 2021 [H/t Bernie Kepshire]

<https://phys.org/news/2021-01-ocean-resources-dungeness-crab-fishing.html>

Link to paper: Climate shock effects and mediation in fisheries

By Mary C. Fisher, et al. PNAS, Jan 12, 2021

<https://www.pnas.org/content/118/2/e2014379117>

*[SEPP Comment: Our language is not sufficiently scary, let’s use climate shocks!]*

#### **Climate Change Blamed For Lake Victoria Record High Levels (After Being Blamed For Low Levels)!**

By P Gosselin, No Tricks Zone, Jan 5, 2021

<https://notrickszone.com/2021/01/05/climate-change-blamed-for-lake-victoria-record-high-levels-after-being-blamed-for-low-levels/>

#### **Study: Warming already baked in will blow past climate goals**

By Seth Borenstein, AP, Jan 5, 2021 [H/t Bernie Kepshire]

<https://apnews.com/article/climate-climate-change-pollution-3f226aed9c58e36c69e7342b104d48bf>

Link to paper: Greater committed warming after accounting for the pattern effect

By Chen Zhou, et al. Nature Climate Change, Jan 4, 2021

<https://www.nature.com/articles/s41558-020-00955-x>

## **Study: “Baked In” Global Warming of 2.3C Means International Climate Goals have Already Failed**

By Eric Worrall, WUWT, Jan 5, 2021

[Study: “Baked In” Global Warming of 2.3C Means International Climate Goals have Already Failed – Watts Up With That?](#)

See links immediately above.

## **Solar now ‘cheapest electricity in history’: How much will it matter?**

By Kurt Cobb, Resilience, Jan 3, 2021

<https://www.resilience.org/stories/2021-01-03/solar-now-cheapest-electricity-in-history-how-much-will-it-matter/>

Link to IEA video: Shaping a secure and sustainable energy future for all.

<https://www.iea.org/>

Link to World Energy Outlook 2020

By Staff, IEA, October 2020

<https://www.iea.org/reports/world-energy-outlook-2020>

“Despite a record drop in global emissions this year, the world is far from doing enough to put them into decisive decline.”

By Fatih Birol, IEA Executive Director

<https://www.iea.org/reports/world-energy-outlook-2020>

“With sharp cost reductions over the past decade, solar PV is consistently cheaper than new coal- or gasfired power plants in most countries, and solar projects now offer some of the lowest cost electricity ever seen.”

*[SEPP Comment: What does one do when it goes out every night?]*

## ***Communicating Better to the Public – Do a Poll?***

### **Half of Britons feel the BBC does not share their values**

By Staff, The Times, Via GWPF, Jan 3, 2021

<https://www.thegwpf.com/half-of-britons-feel-the-bbc-does-not-share-their-values/>

## ***Communicating Better to the Public – Use Propaganda***

### **Weather Channel Explains “Here’s Why”**

By Tony Heller, His Blog, Jan 4, 2021

<https://realclimatescience.com/2021/01/weather-channel-explains-heres-why/>

“Three consecutive years of drought, while they have stimulated the inventive resources of practical agriculturalists, have had the natural effect of calling forth a plentiful crop of speculation from weather prophets, and projectors, and half-instructed meteorologists, and all the philosophic tribe of Laputa in general, to whom the periodical press now affords such fatal facilities.” The Brisbane Courier, Jan 10, 1871

## **Ignore Fake News, Says Fake News BBC!**

By Paul Homewood, Not a Lot of People Know That, Jan 4, 2021

<https://notalotofpeopleknowthat.wordpress.com/2021/01/04/ignore-fake-news-says-fake-news-bbc/>

## ***Expanding the Orthodoxy***

### **Pontifical Academy of Science Emails Document Vatican Hostility to Climate Change Skepticism**

The 2015 emails show how the academy's chancellor and some of its senior members were alarmed about a French scientist attending a high-level Vatican summit and had him disinvited. By Edward Pentin, National Catholic Register, Jan 5, 2021 [H/t WUWT]

<https://www.ncregister.com/blog/april-2015-conference>

### ***Questioning European Green***

#### **Johnson's crazy Net Zero drive will cost so much more than it saves**

By John Constable, The Conservative Woman, Jan 5, 2021

<https://www.conservativewoman.co.uk/johnsons-crazy-net-zero-drive-will-cost-so-much-more-than-it-saves/>

Link to Paper: Who are they Fooling? The UK Energy White Paper

By John Constable, GWPF, 2020

[https://www.thegwpf.org/content/uploads/2020/12/Constable-Energy-White-Paper.pdf?mc\\_cid=e2e19924d9&mc\\_eid=073dedb51c](https://www.thegwpf.org/content/uploads/2020/12/Constable-Energy-White-Paper.pdf?mc_cid=e2e19924d9&mc_eid=073dedb51c)

“It should be granted, in fairness, that while abatement costs themselves are relatively straightforward, there is considerable uncertainty about how to estimate the SCC. Some analysts lean towards the view that emissions pose no threat, and may even be net beneficial, others that the threat is minor, and yet others that there is a major risk of catastrophic harm to human wellbeing. Debate there may be, but there is a mainstream value, and most analyses fall somewhere in between the extremes, suggesting that the SCC is somewhere around £50 per tonne of carbon dioxide or its equivalent (£50/tCO<sub>2</sub>e).”

“Thus, emissions abatement costs that exceed the social cost are obviously irrational; the cure would be worse than the disease.”

### **Coal & Gas Keep The Lights On Tonight [UK]**

By Paul Homewood, Not a Lot of People Know That, Jan 6, 2021

<https://notalotofpeopleknowthat.wordpress.com/2021/01/06/coal-gas-keep-the-lights-on-tonight/>

“It's cold tonight, and gas and coal power stations are working pretty much flat out. Meanwhile wind is contributing a pitiful 8%, even though winds have been moderate today:”

### ***Non-Green Jobs***

#### **BACKS TO THE WALL Staggering ten million jobs at in Red Wall seats at risk due to Government's carbon-neutral pledge, research reveals**

By Matt Dathan, The Sun, Jan 5, 2021

<https://www.thesun.co.uk/news/13650132/staggering-ten-million-jobs-at-in-red-wall-seats-at-risk-due-to-governments-carbon-neutral-pledge-research-reveals/>

*[SEPP Comment: No link to report. Red wall seats refer to UK industrial areas which usually support the Labour Party.]*

### ***Litigation Issues***

#### **Supreme Court Hearing Should Signal Shift From Baseless Lawsuits to Realistic Climate Solutions**

By Guy Caruso, Real Clear Energy, Jan 5, 2021

[https://www.realclearenergy.org/articles/2021/01/05/supreme\\_court\\_hearing\\_should\\_signal\\_shift\\_from\\_baseless\\_lawsuits\\_to\\_realistic\\_climate\\_solutions\\_655405.html](https://www.realclearenergy.org/articles/2021/01/05/supreme_court_hearing_should_signal_shift_from_baseless_lawsuits_to_realistic_climate_solutions_655405.html)

### **Financial Review: Companies, Directors face a Wave of Climate Lawfare in 2021**

By Eric Worrall, WUWT, Jan 5, 2021

[Financial Review: Companies, Directors face a Wave of Climate Lawfare in 2021 – Watts Up With That?](#)

### ***Cap-and-Trade and Carbon Taxes***

#### **Willing to sacrifice... nothing**

By John Robson, Climate Discussion Nexus, Jan 6, 2021

<https://climatediscussionnexus.com/2021/01/06/willing-to-sacrifice-nothing/>

“...’The real threat for Ontario comes on the day when a future federal government, after careful reflection, determines that a plan that costs you nothing will produce nothing. Then, with great sadness and regret, it will phase out the rebate part of the carbon tax.”

### ***EPA and other Regulators on the March***

#### **EPA Rule Will Strengthen Transparency and Accountability in Agency Science**

By Marlo Lewis, Jr. ECI, Jan 8, 2021

<https://cei.org/blog/epa-rule-will-strengthen-transparency-and-accountability-in-agency-science/>

Link to Federal Register: Jan 6, 2021, p 469 to p 493

<https://www.govinfo.gov/content/pkg/FR-2021-01-06/pdf/2020-29179.pdf>

“To rescind it, the Biden administration will have to initiate a new public notice and comment rulemaking. Moreover, it will have to argue, on the record, that making pivotal air pollution science less transparent is a good idea. I say, bring it on!”

#### **Final Rule - Strengthening Transparency in Pivotal Science Underlying Significant Regulatory Actions and Influential Scientific Information**

By Staff, EPA, Accessed Jan 5, 2021

<https://www.epa.gov/osa/final-rule-strengthening-transparency-pivotal-science-underlying-significant-regulatory-actions>

#### **Fact Sheet: Strengthening Transparency in Pivotal Science Underlying Significant Regulatory Actions and Influential Scientific Information Rule**

By Staff, EPA, Accessed Jan 5, 2021

[https://www.epa.gov/sites/production/files/2021-01/documents/fact\\_sheet\\_strengthening\\_transparency\\_in\\_pivotal\\_science\\_underlying\\_significant\\_regulatory\\_actions\\_and\\_influential\\_scientific\\_information\\_rule.pdf](https://www.epa.gov/sites/production/files/2021-01/documents/fact_sheet_strengthening_transparency_in_pivotal_science_underlying_significant_regulatory_actions_and_influential_scientific_information_rule.pdf)

### ***Energy Issues – Non-US***

#### **U.K. Power Grid Creaks at Risk of Blackouts**

By Rachel Morison, Bloomberg Green, Jan 6, 2021

<https://www.bloomberg.com/news/articles/2021-01-06/u-k-electricity-grid-creaks-under-repeated-winter-pressure>

#### **A low-carbon quota for the Capacity Market [UK]**

By Bruno Prior, GWPF, Jan 8, 2021

<https://www.thegwpf.com/a-low-carbon-quota-for-the-capacity-market/>

### ***Energy Issues -- US***

#### **Message for all Americans**

By Donn Dears, Power For USA, Jan 5, 2021

<https://ddears.com/2021/01/05/message-for-all-americans/>

## **Exxon, under investor pressure, discloses emissions from burning its fuels**

By Reuters Staff, Sustainable Business, Jan 6, 2021

<https://www.reuters.com/article/exxon-mobil-carbon/exxon-under-investor-pressure-discloses-emissions-from-burning-its-fuels-idUKL1N2JH1JA>

Link to report: 2021 Energy & Carbon Summary

By Staff, ExxonMobil, 2012

<https://corporate.exxonmobil.com/-/media/Global/Files/energy-and-carbon-summary/Energy-and-Carbon-Summary.pdf>

“The largest U.S. oil producer said the emissions from its product sales in 2019 were equivalent to 730 million metric tons of carbon dioxide, higher than rival oil majors.”

According to the World Economic Forum, in 2017 China had 9,839 MtCO<sub>2</sub> of emissions (27.2% of the world total).

<https://www.weforum.org/agenda/2019/06/chart-of-the-day-these-countries-create-most-of-the-world-s-co2-emissions/>

## **Looking forward: new technologies in the 2020's**

By Judith Curry, Climate Etc. Jan 2, 2021

<https://judithcurry.com/2021/01/02/looking-forward-new-technologies-in-the-2020s/#more-26837>

## **OPINION/LETTER: Electric heat a bad idea [Rhode Island]**

By Michael Armenia, Newport Daily News, Dec 27, 2020

<https://www.newportri.com/story/opinion/letters/2020/12/27/letter-editor-electric-heat-bad-idea-newport-national-grid/4052193001/>

## ***Washington's Control of Energy***

### **Trump Administration Conducts First ANWR Coastal Plain Oil and Gas Sale**

Press Release, Bureau of Land Management, Department of Interior, Jan 6, 2020 [H/t Cooler Heads]

<https://www.blm.gov/press-release/trump-administration-conducts-first-anwr-coastal-plain-oil-and-gas-lease-sale>

## ***Return of King Coal?***

### **Cumbria coal mine: Government won't block UK's first deep coal mine in three decades**

By Sarah George, Edie Newsroom, Jan 7, 2021 [H/t GWPF]

<https://www.edie.net/news/11/Cumbria-coal-mine--Government-refuses-to-block-UK-s-first-deep-coal-mine-in-three-decades/#:~:text=Clubs-.Cumbria%20coal%20mime%3A%20Government%20won't%20block%20UK's%20first%20deep.coal%20mine%20in%20three%20decades&text=Despite%20pressure%20from%20green%20groups.planning%20approval%20in%2030%20years>

## ***Alternative, Green (“Clean”) Solar and Wind***

### **The Dark Side of Clean Energy and Digital Technologies by Guillaume Pitron, review — our dirty future**

By Paul Homewood, Not a Lot of People Know That, Jan 6, 2021

<https://notalotofpeopleknowthat.wordpress.com/2021/01/06/the-dark-side-of-clean-energy-and-digital-technologies-by-guillaume-pitron-review-our-dirty-future/>

## **U.S. Offshore Wind Projects: Eco-Consequences on the Firing Line (Part II: Vineyard Wind)**

By Sherri Lange, Master Resource, Jan 7, 2021

<https://www.masterresource.org/offshore/vineyard-wind-ii/>

### **Wind Power Problems Rise to Prominence**

By Staff IER, Institute for Energy Research, Jan 7, 2021

<https://www.instituteforenergyresearch.org/renewable/wind/wind-power-problems-rise-to-prominence/>

### ***Alternative, Green ("Clean") Energy -- Other***

#### **What is renewable energy?**

By Sarah Wild, Live Science, Jan 4, 2021 [H/t Bernie Kepshire]

<https://www.livescience.com/renewable-energy.html>

Is renewable energy better than "dirty" fossil fuels?

### ***Alternative, Green ("Clean") Vehicles***

#### **One Little Problem With The "All-Electric" Auto Fleet: What Do We Do With All The "Waste" Gasoline?**

By Paul Homewood, Not a Lot of People Know That, Jan 3, 2021

<https://notalotofpeopleknowthat.wordpress.com/2021/01/03/one-little-problem-with-the-all-electric-auto-fleet-what-do-we-do-with-all-the-waste-gasoline/>

### **Colorado mountains bouncing back from acid rain effects**

Scientists find long-term trend of ecological improvement

News Release, NSF, Jan 6, 2021

[https://www.nsf.gov/discoveries/disc\\_summ.jsp?cntn\\_id=301874&WT.mc\\_id=USNSF\\_1](https://www.nsf.gov/discoveries/disc_summ.jsp?cntn_id=301874&WT.mc_id=USNSF_1)

Link to paper: Long-Term Trends in Acid Precipitation and Watershed Elemental Export From an Alpine Catchment of the Colorado Rocky Mountains, USA

By Crawford, Hinckley and Neff, JGR Biogenosciences, Nov 9, 2020

<https://agupubs.onlinelibrary.wiley.com/doi/abs/10.1029/2020JG005683>

"By controlling vehicle emissions, some of the places that make Colorado unique are going back to what they used to be," said ecologist Jason Neff, a co-author of the paper."

### ***Health, Energy, and Climate***

#### **Top 10 Junk Science And Bogus Health Claims ACSH Debunked In 2020**

By Alex Berezow, ACSH, Dec 30, 2020

<https://www.acsh.org/news/2020/12/30/top-10-junk-science-and-bogus-health-claims-acsh-debunked-2020-15247>

### **Particles And Health: What Went Around Came Around - PM2.5 In The Age Of COVID-19**

By Fred Lipfert, ACSH, Dec 17, 2020

[Particles and Health: What Went Around Came Around - PM2.5 in the Age of COVID-19 | American Council on Science and Health \(acsh.org\)](https://www.acsh.org/news/2020/12/17/particles-and-health-what-went-around-came-around-pm2.5-in-the-age-of-covid-19)

Link to paper: Sources of particulate-matter air pollution and its oxidative potential in Europe

By Kaspar R. Daellenbach, et al. Nature, Nov 18, 2020

[Sources of particulate-matter air pollution and its oxidative potential in Europe | Nature](https://www.nature.com/articles/s41586-020-2500-2)

"We now enjoy clearer skies, partly because of reduced PM2.5 levels, but concomitant long-term health benefits have yet to be realized. The 2019 EPA PM2.5 data show modestly higher levels in Detroit, Cincinnati, Pittsburgh, and Indianapolis than in Philadelphia or New York; thus, population or traffic densities do not appear to matter. **Then, what does? It may be time to shine**

the light on the biologically important PM constituents and do the basic science that has been neglected in the US for decades.” [Boldface added]

### ***Other Scientific News***

#### **Desalination breakthrough could lead to cheaper water filtration**

By Staff Writers, Austin TX (SPX), Jan 01, 2021

[https://www.terraviva.com/reports/Desalination\\_breakthrough\\_could\\_lead\\_to\\_cheaper\\_water\\_filtration\\_999.html](https://www.terraviva.com/reports/Desalination_breakthrough_could_lead_to_cheaper_water_filtration_999.html)

Link to paper: Nanoscale control of internal inhomogeneity enhances water transport in desalination membranes

By Tyler E. Culp, et al. Science, Jan 1, 2021

<https://science.sciencemag.org/content/371/6524/72>

[SEPP Comment: May lead to less expensive filtration membranes.]

#### **Modern microbes provide window into ancient ocean**

News Release, University of Colorado at Boulder, Jan 6, 2021 [H/t WUWT]

[https://www.eurekalert.org/pub\\_releases/2021-01/uoca-mmp010421.php](https://www.eurekalert.org/pub_releases/2021-01/uoca-mmp010421.php)

### ***Other News that May Be of Interest***

#### ***New Study: IPCC Made Fatal Errors In Assumptions About CO2 Which Destroy Global Warming Alarm***

By Kenneth Richard, No Tricks Zone, Jan 7, 2021

<https://notrickszone.com/2021/01/07/new-study-ipcc-made-fatal-errors-in-assumptions-about-co2-which-destroy-global-warming-alarm/>

Link to paper: The IPCC Made Three Fatal Errors in Assumptions about CO2

By H. Douglas Lightfoot, Journal of Basic and Applied Sciences, 2020

<https://setpublisher.com/downloads/jbasv16a13/>

[SEPP Comment: The reasoning is contradicted by measurements. Although the article exaggerates the influence of CO2 see:

South Pole is last place on Earth to pass global warming milestone [400 ppm]

By Staff, NOAA, June 15, 2016]

<https://www.noaa.gov/south-pole-last-place-on-earth-to-pass-global-warming-milestone#:~:text=The%20Earth%20passed%20another%20unfortunate,time%20in%204%20million%20years.>

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## **BELOW THE BOTTOM LINE**

#### **GWPF announces winners of ‘The greatest climate hypocrite of the year’ awards**

By Staff, GWPF, Jan 8, 2021

<https://www.thegwgf.com/we-have-a-winner-greatest-climate-hypocrite-of-the-year-awards-announced/>

#### **Masks for cows aim to filter burps to curb greenhouse gas emissions**

By Ross Andersen, CTV News, Jan 2, 2021

<https://www.ctvnews.ca/climate-and-environment/masks-for-cows-aim-to-filter-burps-to-curb-greenhouse-gas-emissions-1.5251619>

#### **Cold Weather Due To Global Warming–Guardian**

By Paul Homewood, Not a Lot of People Know That, Jan 8, 2021

<https://notalotofpeopleknowthat.wordpress.com/2021/01/08/cold-weather-due-to-global-warming-guardian/>

### **Climate Resource Conflict Inferred From a Jaguar Killing an Ocelot**

By Eric Worrall, WUWT, Jan 6, 2021

<https://wattsupwiththat.com/2021/01/06/climate-resource-conflict-inferred-from-a-jaguar-killing-an-ocelot/>

### **The Earth is spinning faster now than at any time in the past half century**

By Sarah Knapton, The Telegraph, Jan 4, 2021 [H/t Bernie Kepshire]

<https://www.yahoo.com/news/earth-spinning-faster-now-time-185517858.html>

“Even the snow building up on mountains and melting in the summer can shift the rotation.

“Global warming will also have an effect by melting ice and snow at higher elevations, causing the Earth to spin faster, although only by a small amount.”

### **Isle of Wight To Save Planet**

By Paul Homewood, Not a Lot of People Know That, Jan 7, 2021

<https://notalotofpeopleknowthat.wordpress.com/2021/01/07/isle-of-wight-to-save-planet/>

“Given that the island already has 5073 hectares of woodland, the total [woodland required] would amount to 35,473 hectares.

“The Isle of Wight’s area is 38,000 hectares.

“Houston, we have a problem!!!”

[SEPP Comment: Plant the trees in the sea!]

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## **ARTICLES**

### **1. Why We’re Ending the EPA’s Reliance on Secret Science**

The agency has long made decisions without allowing the public to scrutinize our underlying data.

By Andrew Wheeler, WSJ, Jan 4, 2021

[https://www.wsj.com/articles/why-were-ending-the-epas-reliance-on-secret-science-11609802643?cx\\_testId=3&cx\\_testVariant=cx\\_25&cx\\_artPos=0#cxrecs\\_s](https://www.wsj.com/articles/why-were-ending-the-epas-reliance-on-secret-science-11609802643?cx_testId=3&cx_testVariant=cx_25&cx_artPos=0#cxrecs_s)

The Administrator of the EPA writes:

*“The task of science is one of test and retest, analysis and comparison, over and over. It is slow and careful work, done in the open. Only rarely has science benefited from secrecy, and that is usually for reasons of national security. The geniuses of the Manhattan Project who built the atomic bomb, the mavericks of Cape Canaveral who sent men to the moon, these giants did their work behind high walls, and for good reason.*

*“But the work of the Environmental Protection Agency—to protect human health and the environment—shouldn’t be exempt from public scrutiny. This is why we are promulgating a rule to make the agency’s scientific processes more transparent.*

*“Too often Congress shirks its responsibility and defers important decisions to regulatory agencies. These regulators then invoke science to justify their actions, often without letting the*

*public study the underlying data. Part of transparency is making sure the public knows what the agency bases its decisions on. When agencies defer to experts in private without review from citizens, distinctions get flattened and the testing and deliberation of science is precluded.*

*“Our rule will prioritize transparency and increase opportunities for the public to access the ‘dose-response’ data that underlie significant regulations and influential scientific information. Dose-response data explain the relationship between the amount of a chemical or pollutant and its effect on human health and the environment—and are the foundation of the EPA’s regulations. If the American people are to be regulated by interpretation of these scientific studies, they deserve to scrutinize the data as part of the scientific process and American self-government.*

*“Transparency is a defense of, not an attack on, the important work done by career scientists at the EPA, along with their colleagues at research institutions around the country. Increasing polarization around scientific questions stems in part from too many public policy debates setting science in a category apart from normal discussion or standards. By shining light on the science we use in decisions, we are helping to restore trust in government. We want the EPA to be able to say, ‘you can check our work.’*

*“The rule-making process is itself transparent. This rule-making is the result of several years of work and two separate public comment periods, making this final rule a better product.*

*“Some special interests have demagogued the rule, calling it an attack on privacy that would weaken the science used by the EPA and politicize public health studies. Critics in the media appear to prefer it when regulators feed them conclusions, instead of analyzing the underlying data themselves.*

*“This rule is not a stick for forcing scientists to choose between respecting the privacy and rights of their study participants and submitting their work for consideration. No private information will be released as a result of this rule. We can verify results with independent review and still protect confidential and personal information. Our rule won’t allow administrators to cherry pick research to derive politically helpful results. It won’t categorically exclude any scientific work from EPA use. We don’t seek to limit anyone’s ability to conduct sound science.*

In arguing that transparency is a guiding principle at EPA, Wheeler gives examples from Ruckelshaus, the first administrator of the EPA, then concludes:

*“Transparency knows no political ideology. My Democratic predecessors often appealed to its importance. In 2014, the Obama administration’s Gina McCarthy reassured the National Academy of Sciences that, ‘In everything we do—EPA relies on transparency, on rigorous peer review, and on robust, meaningful public comment.’ This final regulation does just that. Please read the rule before you reflexively repeat tired misinformation or make another’s interpretation of it your own.”*

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