

The Week That Was: 2022-12-17 (December 17, 2022)

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The Science and Environmental Policy Project

Quote of the Week: *“In this age of specialization men who thoroughly know one field are often incompetent to discuss another. The great problems of the relations between one and another aspect of human activity have for this reason been discussed less and less in public. When we look at the past great debates on these subjects, we feel jealous of those times, for we should have liked the excitement of such argument. The old problems, such as the relation of science and religion, are still with us, and I believe present as difficult dilemmas as ever; but they are not often publicly discussed because of the limitations of specialization.”* – Richard Feynman [1956]

Number of the Week: Two Times Overbuild

THIS WEEK:

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

Scope: An overall theme in the TWTW is understanding limitations. The Lawrence Livermore Laboratories conducted an amazing experiment. For a brief instant the fusion of hydrogen atoms produced more energy than consumed. This is the long-sought power of the stars. Two governors of these laboratories, Steven E. Koonin and Robert L. Powell, wrote an essay published in the Wall Street Journal explaining why this is a breakthrough and that it will be decades before (if ever) fusion becomes a reliable energy source.

Journalist Josh Zumbrun cited statements of the director of the laboratory’s program to the press. He writes of specific deficiencies that must be overcome. This sober approach is in marked contrast to many other government programs involving climate and energy. Some specific excesses will be discussed including the missing “hot spot” in the troposphere over the tropics and the “runaway greenhouse” on Venus.

David Whitehouse of Net Zero Watch writes:

“A new study by a team of leading climate scientists suggests that the effect of carbon dioxide this century might be small if not undetectable when compared to natural climate variability.”

This may be a beginning of a slow realization by some of global climate modelers that the results of their models are from speculation on the impact of carbon dioxide on global temperatures – which is not supported by nature. Another study discussed by Kenneth Richard of No Tricks Zone suggests that the problems may stem from a changing reflective power (albedo) of the earth’s atmosphere, but the numbers are so tiny that no conclusions can be drawn.

William Happer and Bruce Everett had a civilized exchange with Rice University Professor of Economics Peter Hurlley over the issue of carbon taxes. Happer and Everett neatly summarize their opposition with which Hurlley largely agrees. Hurlley’s advocacy of carbon taxes is based on carbon dioxide causing extreme weather events. This illustrates the importance of the work of Ross McKittrick who has shown that the probability calculations of many studies attributing extreme weather events to increasing carbon dioxide concentrations are without a tested theoretical basis, and thus are statistically meaningless.

In Master Resource, Robert Bradley summarizes the interview of ExxonMobil CEO Darren Woods appearing in the December 12 edition of the Wall Street Journal. As Bradley writes:

The climate alarmists/forced energy transformationists have a real intellectual and political debate on their hands. Mugged by reality, the activists must confront the failure of 'green' alternatives in meeting world demand for affordable, reliable, taxpayer-neutral, plentiful energy.

Francis Menton continues to demonstrate that parts of the Department of Energy (DOE) ignore the need for “affordable, reliable, taxpayer-neutral, plentiful energy.” These DOE sections do not recognize the need for utility scale, affordable continuous 24-hour electricity storage if wind and solar are used for generation. Furthermore, getting it 90% right is not sufficient. The last 10% will stop modern civilization from functioning.

Judith Curry writes that climate alarmists, propagandists, are causing real harm to society. This demonstrates the folly of the false attitude by some “scientists” that they must exaggerate to be effective. In addition, the harm being done to the integrity of science is not discussed.

For a Brief Moment: Physicist Steven E. Koonin and Professor of Chemical Engineering & Materials Science Robert L. Powell, governors of Lawrence Livermore National Laboratory, wrote a good summary of why the experiment on fusion announced this week is a breakthrough. In the Wall Street Journal they write: [boldface added]

“The Energy Department has announced the first gain in energy from fusion in a laboratory—the first-time fusion reactions produced more energy than it took to induce them. Last week 192 laser beams at the Lawrence Livermore Laboratory’s National Ignition Facility heated and compressed a capsule of hydrogen to previously unattainable temperatures and pressures, igniting fusion reactions that produced 50% more energy than the laser beams had delivered.

“Nuclear reactions can release the energy that binds together protons and neutrons in an atom’s nucleus. Nuclear power plants use fission, not fusion. Fission releases energy when a large uranium nucleus splits into two radioactive fragments, which carry the energy as they fly apart.

“Fusion, by contrast, relies on the universe’s smallest atom, hydrogen. Energy is released when two hydrogen nuclei combine to produce a helium nucleus and a neutron. Unlike fission, fusion produces no radioactive fragments. Fusion is much harder to induce than fission, since the hydrogen nuclei must be heated to nearly 100 million degrees Celsius to overcome the electrical repulsion that hinders their reaction. Stars run on fusion energy, but on Earth it has previously been released only in thermonuclear explosions. This stunning new result in laboratory fusion opens doors for unprecedented studies in basic and applied science.

“The concept of laser fusion had been pursued without success since the 1960s and it became a central part of a 1990s program to ensure continued confidence in the nuclear-weapons stockpile without underground testing. Although scientists knew that high-powered laser beams could probe the properties of matter relevant to the early stages of detonating a nuclear weapon, the goal of laser fusion would allow for studies in the later stages. It would also challenge and demonstrate the ability to understand and predict the dynamics of hot, dense matter more generally.

“Construction of the ignition facility at the Livermore lab began in 1997, and experiments attempting ignition began soon after construction was completed in 2009. The design and construction of the world’s most powerful laser was an engineering triumph, but three years of failed attempts to achieve fusion ignition brought the program close to cancellation in 2012. But the program continued with a more deliberate approach that included outside peer review.

“The decade of research from 2012 to 2022 illustrated the ability of the Energy Department’s national laboratories to marshal an interdisciplinary team of scientific and engineering talent from the government, universities, and private sector in long-term pursuit of an audacious goal. Researchers in lasers, nuclear and plasma physics, precision-target fabrication, instrumentation, and high-fidelity computer modeling helped design and undertake a series of experiments that gradually approached ignition conditions. The payoff came last week.

“As recent world events make apparent, the U.S. nuclear deterrent is effective only if there’s confidence that the weapons remain effective. Laser ignition demonstrates to the world a deep understanding of weapons science and will be important in sustaining confidence in the coming decades.”

The authors mention efforts in France and China then continue:

*“The U.S. now leads every other country by a decade because of its **foresight, perseverance, and research enterprise**. Continued investment in laser fusion will ensure that this leadership endures.*

*“These days one can’t mention fusion without thinking about energy. The ignition milestone demonstrates fusion gain, a necessary condition for practical energy production. But that is only the first step. Several decades of engineering would be required to make fusion a practical, emissions-free source of electricity. And even then, it would have to be cost-competitive with alternatives. **Like the initial decision to pursue the ignition goal, this is not at all guaranteed. But it’s well worth considering.**”*

See Article # 1 and links under Nuclear Energy and Fears

Hurdles to Overcome: In his discussion of the Livermore experiment, reporter Josh Zumbun gives needed context. He writes: [boldface added]

“A simple ratio commonly known as Q provides an easy and intuitive way to understand if scientists are making progress: It’s energy released divided by energy used. A Q below one means the reaction consumed more energy than it produced. A Q above one means more energy was produced than consumed.

“In this latest experiment, scientists put in 2.05 megajoules of energy and got 3.15 megajoules out. Q was 3.15 divided by 2.05, or about 1.5.

“Tony Roulstone, a nuclear-energy engineer at the University of Cambridge, called this milestone the ‘now we know it works’ one, equivalent to when the physicist Enrico Fermi first created a nuclear chain reaction in 1942, ultimately leading to the hundreds of fission reactors around the world that today produce 10% of the world’s electricity.

“If a reaction produces more heat than it consumes, couldn’t you just run the experiment on repeat and create infinite energy? The practical challenges are enormous, said Mr. Roulstone. The laser would have to be fired many times a second, with those perfect little diamond capsules accurately inserted and positioned dozens of times a second, he said.

*“The bigger obstacle is the second Q value, the engineering break-even. The scientists behind the recent breakthrough have been careful to clarify that **the specific reaction produced more energy than it consumed, but the entire reactor didn’t.***

*“Mark Herrmann, the Livermore lab’s program director for weapon physics and design, told reporters that **to generate 3.15 megajoules of energy, the lab consumed about 300 megajoules of energy to fire its laser.***

“You don’t need to be a physicist to realize that this is far from a viable source of power. The Q value for the entire reactor is about 0.01—roughly 1% of break-even.

“‘The laser wasn’t designed to be efficient,’ said Mr. Herrmann. ‘The laser was designed to give us as much juice as possible to make these incredible conditions happen in the laboratory.’

“This means scientists need to improve the technology by a factor of 100, said Jonathan Menard, chief research officer at Princeton Plasma Physics Laboratory.

“The thing to watch in forthcoming fusion experiments is whether this engineering Q value starts to march toward 1 or remains tiny.

“There’s reason for hope. Over time, lasers have grown more efficient, using less electricity to generate the same optical power. (This is known by the delightfully low-tech term ‘wall-plug efficiency.’)

“Also, the Livermore scientists said that the diamond capsule in their experiment had imperfections and that construction of the National Ignition Facility, where the experiment took place, began over 20 years ago. ‘The technology is ’80s and ’90s technology,’ said Tammy Ma, lead for the laboratory’s inertial fusion energy institutional initiative.

“‘If you gain a factor of 10 on the fusion and 10 on the efficiency, that gives you a factor of 100 roughly,’ said Dr. Menard. ‘That would be in the ballpark of break-even. Both of those are theoretically possible.’ With government support that could take one to two decades, he said. ‘We should try for one and push really hard for that,’ he added.

“Then comes the final challenge: economic, or commercial, break-even. Once you have fusion reactors that produce more energy than they consume, will they actually be worth building, or would other sources of energy be cheaper?

“That will depend on what happens to the prices of other power sources such as fossil fuels. Even if fusion is more expensive than some alternatives, Dr. Menard said he thinks it would likely have a useful role. Even with better battery systems, for example, solar and wind power will likely remain most useful when the sun is shining, and the wind is blowing. Fusion plants could be powered up at other times to fill the gap.

“It’s going to take a lot more technological advancement to make it a practical energy source,’ he said. But it’s still inspiring, he said: ‘I hope people will get excited to work on this superfun challenge—making a star on Earth.’”

In short, it will require an increase in efficiency of 100 times the current efficiency and no one knows what the costs will be or how long it will take. See Article # 2 and Nuclear Energy and Fears.

Uncertainty v. Certainty: The great uncertainty expressed by Livermore Laboratories in being able to develop fusion as a source of energy is starkly different than the great certainties expressed by other parts of DOE in being able to replace fossil fuels with wind and solar and the great certainties the UN Intergovernmental Panel on Climate Change (IPCC) places in the predictions / forecasts in the models it uses and the science (or lack of it) behind its reports. For example, at the Working Group I (Science), Fifth Session, Madrid 27-29, November 1995, the IPCC began pushing a highly speculative paper by climate researcher at Lawrence Livermore National Laboratory Benjamin Santer claiming a “distinct human fingerprint.”

This became the infamous “hot spot” in climate models of a strong warming at about 60,000 feet over the tropics. It has not been found in over 40 years of comprehensive atmospheric data of temperature trends. Yet, the warming resulting from the non-existent “hot spot” remains in the IPCC reports.

A second example of false certainty is the claim by NASA-GISS that Venus is an example of “runaway greenhouse”, and the claim that a hotter planet emits more heat. The atmospheric pressure at the surface of Venus is 93 earth’s atmospheres. That pressure results in enormous heat. As AMO physicist Howard Hayden explains in Basic Climate Physics # 3,

“For a second example, consider Venus. The surface is hot enough to melt lead, but because of its very high albedo of 75%, the planet absorbs 156 W/m² from the sun and emits 156 W/m² to space, versus our [Earth’s] 239 W/m². In this case, the hotter planet radiates less energy to space. [Virtually zero heat to space comes directly from the surface.]

Even though Venus absorbs only 65% as much energy from the sun as the earth, its atmosphere at the surface is ninety-three times the mass of Earth’s atmosphere at the surface and is responsible for the high surface temperature. The surface temperature is steady, not “running away.” See <https://enthusiasmscepticismscience.wordpress.com/2015/11/21/remembering-madrid-95-a-meeting-that-changed-the-world-2/> and http://www.sepp.org/science_papers/Climate%20Physics%203.pdf

Slow Realization? The fact is that the Earth is not warming with increasing atmospheric carbon dioxide as climate models predicted. Some climate modelers appear to be seeking an answer or an excuse. David Whitehouse discusses one new paper which asserts that the culprit may be a reduction in atmospheric aerosols, minute particles suspended in the atmosphere. One of the authors of the paper is Myles Allen, Atmospheric, Oceanic and Planetary Physics, Department of Physics, University of Oxford. Allen was Coordinating Lead Author on the IPCC’s 3rd, 4th, and 5th Assessment Reports. According to his website:

He is credited by the BBC with first demonstrating, 15 years ago, the need for ‘Net Zero’ carbon dioxide emissions to stop global warming. His research focuses on how human and natural

influences on climate contribute to observed climate change and risks of extreme weather and in quantifying their implications for long-range climate forecasts.

“He proposed the use of Probabilistic Event Attribution to quantify the contribution of human and other external influences on climate to specific individual weather events and leads the www.climateprediction.net/ project, using distributed computing to run the world's largest ensemble climate modelling experiments.”

TWTW does not expect anything significant coming from this paper or the one reported by Kenneth Richard. See links under Questioning the Orthodoxy.

Civil Disagreement: AMO physicist Will Happer and energy specialist Bruce Everett criticized a paper advocating carbon [dioxide] taxes by Rice University Professor of Economics Peter Hartley. Hartley rebutted the criticism. Happer and Everett summed their criticism with:

In conclusion, analysis suggests the following externalities of atmospheric CO₂

- *no impact on human and animal health,*
- *a substantial positive impact on plant growth and crop yields,*
- *positive impacts from the modest warming observed so far, and*
- *no empirical support for net damages, which remain a prediction, not an observation.*

*It's difficult to extract from this analysis any basis for supporting a Pigouvian tax [a tax on something that causes harm to others not involved, such as respiratory harm caused by soot from coal-fired power plants without proper filters] on CO₂. The United States currently emits roughly 5 billion metric tonnes of CO₂ per year, mainly from fossil-fuel use. A carbon tax at \$50/mt (the US Government's SCC) would impose an annual burden of \$250 billion on the US economy or approximately \$2,000 per household. This burden would be in addition to the substantial increases in gasoline, heating oil, natural gas and electricity prices experienced over the last year. **Despite the best hopes of climate activists, renewable energy is too costly and performance-limited to replace the fossil fuel economy.***

Pigouvian taxes are appropriate when an identified externality (a) is negative and (b) can be quantified. Carbon dioxide meets neither test, and a carbon tax would create a substantial dead-weight loss to the economy for no benefit at all. [Boldface added]

Surprisingly Hartley fully agreed but concluded:

*In summary, economic analysis implies a clear hierarchy in policies aimed at moderating the harmful effects of extreme weather events. First, eliminate harmful command and control regulations of the energy industry, imposed in the name of 'climate policy,' which inflict substantial costs without any proven benefits. Second, each jurisdiction should implement cost-effective defensive measures that **protect against, and reduce the costs of, harmful weather events, no matter the cause.** Third, and only if the then greatly reduced expected costs still warrant it, and only if effective international agreement can be obtained, Pigouvian taxes on CO₂ emissions could be imposed. So, yes, simply proposing a tax on CO₂ emissions without these preconditions would indeed be 'a bad idea.' [Boldface added]*

Apparently, Hartley is unaware of econometrician Ross McKittrick's effective paper demonstrating that the probabilities used in many studies attributing extreme weather events to increasing CO2 are meaningless. See links under Challenging the Orthodoxy and Seeking a Common Ground.

ExxonMobil Knows! On Master Resource, Robert Bradley has a summary of an interview of ExxonMobil CEO Darren Woods appearing in the Wall Street Journal. It is summed as "No Net Zero Here." Woods recognizes that Net Zero by 2035 or some other date is fantasy. Other than Disneyland, corporations cannot last long on fantasy, unless heavily government subsidized. As Bradley writes:

'Consider ExxonMobil. 'Exxon Knows' should replace ExxonKnew, for ExxonMobil knows that consumer demand and profits will be with the mineral energies, not dilute, intermittent, government-dependent wind and solar. Compare this approach with Shell, which finds itself in legal trouble with its embrace of Net Zero,'

*"Yes, there was political correctness [in the interview] ("wind, solar and electric vehicles ... have an important role to play...") and rent-seeking ("carbon capture and storage is recognized as an important technology in addressing emissions, we are focusing on it"). But a number of quotation points make it clear that **oil and gas is the future—and a bigger future than today.**" [Emphasis in original.] Among the quotes are:*

"'What we were seeing even before the Russian invasion of Ukraine is a policy approach dominated by ideology. Aspiration and hope collide with the realities of a global energy system that's complicated, multidimensional, and critically important to economic growth and prosperity.'

"'... policy makers are stepping back and looking at managing the threat of climate change and reducing emissions in a way that more effectively addresses things like national security. Affordability, reliability, availability of energy also are all critically important. And hopefully they come up with a better approach.'

"'Institutions and businesses around the world have to move from the business of propaganda to the business of math, and actually do the work to understand how we're going to strike that balance.'" See link under Questioning Green Elsewhere.

Fantasy Exposed: Francis Menton exposes the ignorance of parts of the Department of Energy that ignore the energy storage problem created by unreliable and variable electricity generation from wind and solar replacing reliable energy generation from fossil fuels and nuclear. Short-term "savings" of using unreliable power will be very costly in the long run. According to Menton, there are three obvious policy limitations that are being ignored in the US.

"(1) More and more wind turbines and solar panels are essentially useless because they can never fully supply an electrical grid or provide energy security without full dispatchable backup."

"(2) The so-called 'all of the above' energy strategy is equally disastrous."

"(3) A carbon tax is a terrible idea."

Menton also goes into the claim that “100% Clean Electricity” is about 90% solved is absurd. Unless it is 100% solved, reliable back-up must be available. For example, computer chip manufacturing, now being heavily subsidized by the federal government, requires 100% reliable electricity under tight tolerances. A brief hiccup can destroy a month or two of production, depending on the complexity of the chip. See links under Challenging the Orthodoxy.

Fear and Risk: In her post on “Misperception and amplification of climate risk” Judith Curry states:

“The theme of this particular post is how our perceptions of risk differ from the actual risk itself. Understanding this difference provides insights to understanding these fears, as well as providing insights into how these differences are manipulated by propagandists.”

She goes into a breakdown of the difference between perception of risk and risk itself as well as types of risk and understanding of risk. Before closing she writes:

“Congratulations to all the proselytizers of climate doom, you have finally demonstrated an actual adverse impact of climate change that is actually caused by humans – psychological distress. This psychological distress is directly caused by you: the mistaken, irrational, politically motivated people that have created effective propaganda that is creating negative stress reactions particularly among children who have yet to develop a clear sense of self and lack a context for being able to filter the BS.”

She then goes into the idea that extreme weather events are caused by CO2. This gives rise to the false assumption that extreme weather events are controllable. As stated above, Ross McKittrick has shown that probabilities assigned to CO2 causing extreme weather events depends on ignorance of the conditions expressed in the Gauss-Markov Theorem. See links under Challenging the Orthodoxy.

Number of the Week: Two Times Overbuild: Using analysis started by the late Roger Andrews, Francis Menton states:

“El Hierro Island has a 2x overbuild of wind turbines and plenty of storage from its water reservoir to supply demand for a full day; but they can’t consistently get past 50-60% of supply from the wind/storage system.”

El Hierro Island (in the Canary Islands) is the best example of a demonstration project of wind plus storage TWTW has been able to find. With a population of about 12,500, it is not a metropolitan area, and the system requires diesel generators to operate forty percent or more of the time. To assume that metropolitan areas can achieve net zero with wind, solar, and storage is absurd.

No TWTW next week. TWTW will resume on New Year’s weekend with the Best of 2022



Dear Reader of The Week That Was,

The Science & Environmental Policy Project (SEPP) is a 501-c-3 organization, incorporated in Virginia. Its Federal I.D. Number is 54-1645372 and donations are US tax deductible. Established in 1990 by the late S. Fred Singer to challenge government environmental policies employing poor science, SEPP stands for objective science, based on physical evidence and rigorous adherence to the scientific method.

No matter how elaborate, results from numerical models that are not thoroughly tested against physical evidence are speculative and cannot be relied upon. Testing the results from using parts of a model against the results from the entire model is a ruse used by the UN Intergovernmental Panel on Climate Change (IPCC). Major government policies based on speculation and misleading “modeling” are a waste of resources.

Physicist Dr. Thomas Sheahan is Chairman. Other distinguished scientists serve on the board of directors. Ken Haapala continues as president, compiles TWTW, and oversees general operations. We continue to be very productive and are striving to carry on the tradition of scientific integrity, together with the priority of data over theory, which Fred Singer always espoused.

Two prevalent myths are damaging our economy and hurting the less fortunate: 1) greenhouse gases, chiefly carbon dioxide, are causing dangerous global warming; and 2) wind and solar can easily replace fossil fuels, nuclear, and hydro in electricity generation. Both are false, yet widely accepted. We continue to contest these myths, and others, with physical evidence.

In collaboration with like-minded groups, we produce hard-hitting comments for the public record and provide scientific testimony on Federal government climate and energy policy. We are actively attempting to eliminate or change the EPA’s endangerment finding that despite a lack of physical evidence, carbon dioxide (CO₂) poses a danger to public health.

In 2007, SEPP established NIPCC (Non-governmental International Panel on Climate Change) to respond to the false claims of the UN-IPCC and its followers. They claim, without physical evidence, that the use of fossil fuels and CO₂ emissions, will lead to climate disasters. The Heartland Institute continues the NIPCC efforts with well-attended sessions of the International Conference on Climate Change and the NIPCC reports at www.NIPCCreport.org.

Contrary to frequent attacks, SEPP does not receive support from oil, tobacco, or chemical companies – or government organizations. SEPP accepts donations from private individuals and small contributions from foundations. The appropriate IRS tax filings are made by an independent CPA and are “Open to Public Inspection.”

SEPP is frugal and beholden to no one, and our writings are clear from any outside influence, except physical evidence, the scientific method, and logic. Private donations of any size are

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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>

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

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>

Challenging the Orthodoxy

An Introductory-Level Explanation of my Critique of AT99

Ross McKittrick, His Blog, August 25, 2021

<https://www.rossmckittrick.com/uploads/4/8/0/8/4808045/at99.backgrounder.pdf>

Policy Implications Of The Energy Storage Conundrum

By Francis Menton, Manhattan Contrarian, Dec 13, 2022

<https://www.manhattancontrarian.com/blog/2022-12-13-policy-implications-of-the-energy-storage-conundrum>

The Impossibility Of Bridging The "Last 10%" On The Way To "100% Clean Electricity"

By Francis Menton, Manhattan Contrarian, Dec 10, 2022

<https://www.manhattancontrarian.com/blog/2022-12-10-bridging-the-last-10-on-the-way-to-100-clean-electricity>

Misperception and amplification of climate risk

By Judith Curry, Climate Etc. Dec 13, 2022

<https://judithcurry.com/2022/12/13/misperception-and-amplification-of-climate-risk/#more-29467>

Greenhouse gasses are good

By Bob Ryan, American Thinker, Dec 15, 2022

https://www.americanthinker.com/blog/2022/12/greenhouse_gasses_are_good.html

Defending the Orthodoxy – Bandwagon Science

Viewpoint: With historic droughts on the rise, we must reclaim our water

By Joshua Nodiff, Earth Institute at Columbia University, Dec 15, 2022 [H/t Bernie Kepshie]

<https://phys.org/news/2022-12-viewpoint-historic-droughts-reclaim.html>

[SEPP Comment: Reclaiming water may be a desirable goal, but the premise is false.]

Claim: Computer Models Predict a Third of Vertebrates will Die [go extinct] by 2100

By Eric Worrall, WUWT, Dec 16, 2022

<https://wattsupwiththat.com/2022/12/16/claim-computer-models-predict-a-third-of-vertebrates-will-die-by-2100/>

Questioning the Orthodoxy

21st century warming may not be due to greenhouse gasses, leading climate scientists say

A new study by a team of leading climate scientists suggests that the effect of carbon dioxide this century might be small if not undetectable when compared to natural climate variability.

By David Whitehouse, Net Zero Watch, Dec 16, 2022

<https://www.netzerowatch.com/21st-century-warming-may-not-be-due-to-greenhouse-gasses-leading-climate-scientists-say/>

Link to paper: Is Anthropogenic Global Warming Accelerating?

By Stuart Jenkins, et al., Journal of Climate, Nov 22, 2022

<https://journals.ametsoc.org/view/journals/clim/35/24/JCLI-D-22-0081.1.xml>

New Study: Shortwave Climate Forcing Increased From 2001-2018, Explaining The Warming

By Kenneth Richard, No Tricks Zone, Dec 15, 2022

<https://notrickszone.com/2022/12/15/new-study-shortwave-climate-forcing-increased-from-2001-2018-explaining-the-warming/>

Link to paper: **Spatiotemporal characteristics and driving factors of global planetary albedo: an analysis using the Geodetector method**

By Mingzhu Lv, et al., Theoretical and Applied Climatology, Nov 17, 2021

<https://link.springer.com/article/10.1007/s00704-021-03858-9>

Elevated Living Standards Contradict Climate Doomsayers

By Vijay Jayaraj, Real Clear Energy, Dec 14, 2022

https://www.realclearenergy.org/articles/2022/12/14/elevated_living_standards_contradict_climate_doomsayers_870053.html

Will Solar Power Exceed Coal Power in 2027?

By Paul Homewood, Not a Lot of People Know That, Dec 13, 2022

<https://notalotofpeopleknowthat.wordpress.com/2022/12/13/will-solar-power-exceed-coal-power-in-2027/>

“Regardless of [Executive Director of the International Energy Agency] Fatih Birol’s spin, renewable energy will still be a minor player in five years’ time. More importantly, there is no evidence that the world can run on intermittent wind and solar power alone.”

After Paris!

COP15 begins and other climate change stories you need to read this week

Editorial, World Economic Forum, Dec 12, 2022

<https://www.weforum.org/agenda/2022/12/cop15-and-other-climate-change-stories-you-need-to-read-12-december/>

“UN Secretary-General António Guterres told delegates there is no time to lose: ‘Humanity has become a weapon of mass extinction. This conference is our chance to stop this orgy of destruction,’ he said at the opening ceremony on 6 December.”

COPs and robbers

By John Robson, Climate Discussion Nexus, Dec 14, 2022

<https://climatediscussionnexus.com/2022/12/14/cops-and-robbers/>

Change in US Administrations

Biden administration to buy 3 million barrels of oil to replenish reserves

By Zack Budryk, The Hill, Dec 16, 2022

<https://thehill.com/policy/energy-environment/3778192-biden-administration-to-buy-3-million-barrels-of-oil-to-replenish-reserves/>

Five Reasons Why U.S. Shale Production Won't Soar In 2023

By Irina Slav, Oil Price.com, Dec 12, 2022

<https://oilprice.com/Energy/Crude-Oil/Five-Reasons-Why-US-Shale-Production-Wont-Soar-In-2023.html>

“Last week, the chief energy adviser to the Biden administration, Amos Hochstein, blamed institutional investors for the stalled drilling in the U.S. oil and gas industry and called it outrageous and un-American.”

[SEPP Comment: For implementing what the administration is doing?]

Social Benefits of Carbon Dioxide

The mitigating influence of CO2 on drought and heat stress in wheat

By John Robson, Climate Discussion Nexus, Dec 14, 2022

<https://climatediscussionnexus.com/2022/12/14/the-mitigating-influence-of-co2-on-drought-and-heat-stress-in-wheat/>

From the CO2Science Archive:

Problems in the Orthodoxy

Fighting Climate Change Requires Holding China Accountable

By Stephen Perkins, Real Clear Energy, Dec 13, 2022

https://www.realclearenergy.org/articles/2022/12/13/fighting_climate_change_requires_holding_china_accountable_870037.html

Seeking a Common Ground

Are Carbon Taxes a Good Idea?

Happer and Everett versus Hartley

An exchange including William Happer, Bruce Everett, Negative; Peter Hartley Affirmative, The Global Warming Policy Foundation, 2022

<https://www.thegwpf.org/content/uploads/2022/12/Carbon-tax-debate.pdf>

Carbon Taxes? Happer & Everett Respond

By Paul Homewood, Not a Lot of People Know That, Dec 13, 2022

<https://notalotofpeopleknowthat.wordpress.com/2022/12/13/carbon-taxes-happer-everett-respond/>

Science, Policy, and Evidence

Upper Colorado River states announce voluntary cutback program

By Zack Budryk, The Hill, Dec 15, 2022

<https://thehill.com/policy/energy-environment/3776895-upper-colorado-river-states-announce-voluntary-cutback-program/>

“The plan, unveiled by representatives of Colorado, New Mexico, Utah and Wyoming Wednesday, would subsidize users of river water to voluntarily cut back on their use. The pilot program would pay participating users at least \$150 per acre-foot of water conserved.”

[SEPP Comment: Attempting to solve a problem recognized more than 50 years ago built on optimistic constant weather (climate).]

Rearguard

By John Robson, Climate Discussion Nexus, Dec 14, 2022

<https://climatediscussionnexus.com/2022/12/14/rearguard/>

“Canada’s Finance Minister and deputy Prime Minister Chrystia Freeland has obliged planning to spend \$2 billion on the shares of a non-existent company that will attract private funds to green technology. What could possibly go wrong?”

The fuel of the future

By John Robson, Climate Discussion Nexus, Dec 14, 2022

<https://climatediscussionnexus.com/2022/12/14/the-fuel-of-the-future/>

“Again, energy is expensive because governments made it that way by making it scarce. And while high prices, and profits, lead to investment, an increase in production and falling prices, the almost universal plan is to hide the scarcity by depressing prices so that the shortage persists. Oh, and make sure the system is dependent on the stuff that doesn’t work not the stuff that does, as ‘Coal spurned: renewables to ‘keep lights on’”.

“The idea is that the voters will have cheap energy. In reality what they’ll have is cheap lack of energy, which is not the same.”

Measurement Issues -- Surface

Svalbard Airport Temperatures

By Paul Homewood, Not a Lot of People Know That, Dec 16, 2022

<https://notalotofpeopleknowthat.wordpress.com/2022/12/13/cold-weather-is-bad-for-you/>

[SEPP Comment: Showing the database for claiming an increase in Svalbard temperatures is far from reliable.]

Changing Weather

Response to Willis Eschenbach’s WUWT Post “How The El Nino Is Changing”

By Bo Tisdale, WUWT, Dec 14, 2022

<https://wattsupwiththat.com/2022/12/14/response-to-willis-eschenbachs-wuwt-post-how-the-el-nino-is-changing/>

[SEPP Comment: Based on the work of Professor Yim of the University of Hong Kong, we must carefully distinguish between an El Niño event as part of ENSO and a Pacific Ocean hot spot (the blob) created by underseas volcanic activity.]

Hurricane data at your fingertips

By John Robson, Climate Discussion Nexus, Dec 14, 2022

<https://climatediscussionnexus.com/2022/12/14/hurricane-data-at-your-fingertips/>

The coldest summer day in Australia and nobody notices

By Jo Nova, Her Blog, Dec 11, 2022

<https://joannenova.com.au/2022/12/the-coldest-summer-day-in-australia-and-nobody-notices/>

Drought emergency declared in Southern California

By Olafimihan Oshin, The Hill, Dec 15, 2022

<https://thehill.com/policy/energy-environment/3776423-drought-emergency-declared-in-southern-california/>

Baked Alaska

By Tony Heller, His Blog, Dec 15, 2022

<https://realclimatescience.com/2022/12/baked-alaska-3/>

The End Of Scottish Skiing

By Tony Heller, His Blog, Dec 16, 2022

<https://realclimatescience.com/2022/12/the-end-of-scottish-skiing-2/>

Changing Climate

New Study: Birch And Pine Forests Far More Abundant In The Arctic During The Holocene Than Today

By Kenneth Richard, No Tricks Zone, Dec 12, 2022

<https://notrickszone.com/2022/12/12/new-study-birch-and-pine-forests-far-more-abundant-in-the-arctic-than-today-during-the-holocene/>

Link to latest paper: Paleoecology more than demography determined prehistoric human impact in Arctic Norway

By Tony Brown, et al. PNAS Nexus, Nov 5, 2022

<https://academic.oup.com/pnasnexus/article/1/5/pgac209/6751926?login=false>

The elephant in the Arctic

By John Robson, Climate Discussion Nexus, Dec 14, 2022

<https://climatediscussionnexus.com/2022/12/14/the-elephant-in-the-arctic/>

“National Geographic pulls a similar stunt, enthusing about the story in all kinds of traditional and proper NG ways before insisting that:

“Together, the DNA paints the picture of a complex, fully integrated ecosystem—one that existed and developed during an era when the polar region was somewhere between 11 to 17 degrees Celsius (about 20 to 30 Fahrenheit) warmer than today, and an era that provides one of the closest possible analogs to our future with climate change.”

Changing Cryosphere – Land / Sea Ice

Polar bear habitat update: Winter conditions well on their way across the Arctic except in Svalbard

By Susan Crockford, Polar Bear Science, Dec 11, 2022

<https://polarbearscience.com/2022/12/11/polar-bear-habitat-update-winter-conditions-well-on-their-way-across-the-arctic-except-in-svalbard/>

Agriculture Issues & Fear of Famine

Climate Change is Not Causing Famines

Editorial and Video, Just Facts, Dec 15, 2022 [H/t Bernie Kepshire]

<https://rumble.com/v20sbxg-climate-change-is-not-causing-famines.html>

Lowering Standards

Arctic Report: primary productivity still high & sea ice flatline continues despite warmer temperatures

By Susan Crockford, Polar Bear Science, Dec 14, 2022

<https://polarbearscience.com/2022/12/14/arctic-report-primary-productivity-still-high-sea-ice-flatline-continues-despite-warmer-temperatures/>

Link to: **Arctic Report Card: Update for 2022**

The warming Arctic reveals shifting seasons, widespread disturbances, and the value of diverse observations

By Staff, NOAA Arctic Program, 2022

<https://www.arctic.noaa.gov/Report-Card/Report-Card-2022>

[SEPP Comment: Crockford exposes how low NOAA has gone. An increase in primary production should be celebrated, but it is condemned. Still waiting for the Arctic “death spiral.”]

ESG RIP: Review of Terrence Keeley’s “Sustainable”

Part 2: The ESG Reality: Not Doing Good, but Feeling Good

By Rupert Darwall, Real Clear Books, Dec 13, 2022

https://www.realclearbooks.com/articles/2022/12/13/esg_rip_review_of_terrence_keeleys_sustainable_869834.html

“The sum of £40 million a year is an awful lot of money for a university to spend on purchasing virtue protection from its own members.”

“Limiting one’s income-generating opportunity set without advancing one’s values or environmental goals merits deeper reflection. It could even be self-defeating, given others with contrary views and values could profit from one’s self-imposed and strategically ineffective restrictions.”

“Sustainability, too, is a nonscientific concept, as can be seen by reference to its origin in the report of the UN World Commission on Environment and Development, better known as the Brundtland Report, in 1987:

“In essence, sustainable development is a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations.”

[SEPP Comment: What is sustainable about solar electricity generation that fails every night?]

‘Turbocharged’ Renewables: The IEA Hawking Its Wares Again

By Tilak Doshi, Forbes, Dec 13, 2022

<https://www.forbes.com/sites/tilakdoshi/2022/12/13/turbocharged-renewables-the-ia-hawking-its-wares-again/?sh=401bd73d27ae>

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

More Climate Misinformation and Factual Errors in the Seattle Times. Should You Care?

By Cliff Mass, Weather Blog, Dec 13, 2022

<https://cliffmass.blogspot.com/search?updated-max=2022-12-15T20:15:00-08:00&max-results=2>

[SEPP Comment: Claiming that local tribes must move because sea levels are rising; when they are falling locally is just one problem.]

Doesn’t Ben Marlow Know Anything At All About Energy?

By Paul Homewood, Not a Lot of People Know That, Dec 13, 2022

<https://notalotofpeopleknowthat.wordpress.com/2022/12/13/doesnt-ben-marlow-know-anything-at-all-about-energy/>

The Delusional Ambrose Evans-Pritchard

By Paul Homewood, Not a Lot of People Know That, Dec 12, 2022

<https://notalotofpeopleknowthat.wordpress.com/2022/12/12/the-delusional-ambrose-evans-pritchard/>

“The delusional Ambrose Evans-Pritchard still believes that the world is desperate to transition to green energy.

“He is worried that if we open a new coking coal mine in Cumbria, we will fall behind other countries in the race for “clean” energy, countries, I suppose, like Germany who are demolishing a windfarm in order to dig for lignite!”

“The billions invested in wind and solar have barely made a dent in China’s overall energy mix. They still only account for 6% of total energy consumption.”

The Telegraph—Where 28.5% = 26.2%

By Paul Homewood, Not a Lot of People Know That, Dec 16, 2022

<https://notalotofpeopleknowthat.wordpress.com/2022/12/16/the-telegraph-where-28-5-26-2/>

AEP Throws His Toys Out Of The Pram Again!

By Paul Homewood, Not a Lot of People Know That, Dec 11, 2022

<https://notalotofpeopleknowthat.wordpress.com/2022/12/11/aep-throws-his-toys-out-of-the-pram-again/>

Communicating Better to the Public – Do a Poll?

Despite ostracism, namecalling, and billions of dollars, globally nearly 4 in 10 are climate skeptics

By Jo Nova, Her Blog, Dec 14, 2022

<https://joannenova.com.au/2022/12/despite-ostracism-namecalling-and-billions-of-dollars-nearly-4-in-10-globally-are-climate-skeptics/>

Communicating Better to the Public – Use Propaganda

Everybody knows: climate change is making hurricanes more intense

By John Robson, Climate Discussion Nexus, Dec 14, 2022

<https://climatediscussionnexus.com/2022/12/14/everybody-knows-climate-change-is-making-hurricanes-more-intense/>

Communicating Better to the Public – Protest

Protesting China’s Climate Catastrophe

By Paul Bledsoe, Real Clear Energy, Dec 13, 2022

https://www.realclearenergy.org/articles/2022/12/13/protesting_chinas_climate_catastrophe_870025.html

Expanding the Orthodoxy

Don’t Let Financial Regulators Dream Up Climate Solutions

We’ll get bad policy and an even more fragile financial system if we do.

By John Cochrane, City Journal, March 24, 2021

<https://www.city-journal.org/dont-let-financial-regulators-dream-up-climate-solutions>

Melting ice brings Chinese threat closer, warns Armed Forces chief

By Paul Homewood, Not a Lot of People Know That, Dec 15

<https://notalotofpeopleknowthat.wordpress.com/2022/12/15/melting-ice-brings-chinese-threat-closer-warns-armed-forces-chief/>

“Which leads to the question why [Admiral Sir] Tony Radakin is making a fool of himself. The only conclusion I can come to is that he is under orders to play the climate card, so as to scare the public.”

Questioning European Green

Europe’s power crisis has ‘very little to do with Putin,’ portfolio manager says

By Anmar Frangoul, Sustainable Energy, CNBC, Dec 12, 2022

<https://www.cnbc.com/2022/12/12/europes-power-crisis-has-very-little-to-do-with-putin-ceo.html>

“Expanding on his point, Lekander explained that, in his view, the current situation was down to a number of factors.

Questioning Green Elsewhere

Fossil Future at ExxonMobil (no ‘net zero’ here)

By Robert Bradley Jr. Master Resource, Dec 13, 2022

<https://www.masterresource.org/exxon-mobil/fossil-fuels-exxonmobil-woods/>

Non-Green Jobs

Germany's Krupp Mannesmann Steel Mill "In Danger Of Failing Due To Financing", Green Energy Costs

By P Gosselin, No Tricks Zone, Dec 11, 2022

<https://notrickszone.com/2022/12/11/germanys-krupp-mannesmann-steel-mill-in-danger-of-failing-due-to-financing-green-energy-costs/>

Funding Issues

More financing needed for IMF climate change fund: director

By AFP Staff Writers, Washington (AFP), Dec 13, 2022

https://www.terradaily.com/reports/More_financing_needed_for_IMF_climate_change_fund_director_999.html

[SEPP Comment: Is there any international organization that does not claim it needs more money to fight climate change?]

The Looming Demise of ESG and Virtue Investing

By William Sullivan, American Thinker, Dec 16, 2022

https://www.americanthinker.com/articles/2022/12/the_looming_demise_of_esg_and_virtue_investing.html

“The CFO of the state of Florida, Jimmy Patronis, just weeks ago, fired BlackRock for its woke shenanigans, pulling \$2 billion from the firm’s management. He tells BlackRock:...’ Using our cash, however, to fund BlackRock’s social-engineering project isn’t something Florida ever signed up for. It’s got nothing to do with maximizing returns and is the opposite of what an asset manager is paid to do. Florida’s Treasury Division is divesting from BlackRock because they have openly stated they’ve got other goals than producing returns.”

The Political Games Continue

Committee's Anti-Oil, Gas Investigation a Giant Nothingburger

By Will Allison, Energy in Depth, Dec 9, 2022

<https://eidclimate.org/oversight-committees-anti-oil-and-natural-gas-investigation-and-report-turns-out-to-be-a-giant-nothingburger/>

Link to report: To: Members of the Committee on Oversight and Reform

Fr: Chairwoman Carolyn B. Maloney and Chairman Ro Khanna

Re: Investigation of Fossil Fuel Industry Disinformation

https://oversight.house.gov/sites/democrats.oversight.house.gov/files/2022-12-09.COR_Supplemental_Memo-Fossil_Fuel_Industry_Disinformation.pdf

“The ‘explosive’ report simply states the obvious – that energy companies plan to continue producing oil and natural gas to meet global demand. It’s a fitting end to an investigation characterized by mixed messages, disorganization, and improper activist influence.

House Democrats Accuse Big Oil Of Greenwashing

By Tsvetana Paraskova , Oil Price.com, Dec 12, 2022

<https://oilprice.com/Energy/Energy-General/House-Democrats-Accuse-Big-Oil-Of-Greenwashing.html>

House climate crisis panel outlines milestones ahead of likely dissolution

By Zack Budryk, The Hill, Dec 14, 2022

<https://thehill.com/policy/energy-environment/3775322-house-climate-crisis-panel-outlines-milestones-ahead-of-likely-dissolution/>

Greenwashing, emphasis on green

By John Robson, Climate Discussion Nexus, Dec 14, 2022

<https://climatediscussionnexus.com/2022/12/14/greenwashing-emphasis-on-green/>

“In Canada’s capital we’ve just had a bitter taste of the tendency of state-sponsored megaprojects to take too long, cost too much and deliver too little with our Light Rail Transit white elephant, with similar problems emerging in our largest city. Wherever you live there’s almost certainly something similar. And you ain’t seen nothing yet, apparently.”

Senate rejects Manchin’s energy permitting amendment to defense bill

By Rachel Frazin, The Hill, Dec 15, 2022

<https://thehill.com/policy/energy-environment/3776418-senate-rejects-manchins-energy-permitting-amendment-to-defense-bill/>

Subsidies and Mandates Forever

Virginia Agrees to Compensate Fishing Industry for Damage from Offshore Wind

By Steve Haner, Bacon’s Rebellion, Via WUWT, Dec 14, 2022

<https://wattsupwiththat.com/2022/12/14/virginia-agrees-to-compensate-fishing-industry-for-damage-from-offshore-wind/>

“The announcement, made December 12, hints at it coming from project developers, but in Virginia of course that is a monopoly utility guaranteed by law to collect all costs from its customers. Dominion Energy Virginia’s planned 176-turbine Coastal Virginia Offshore Wind (CVOW) just got more expensive.”

[SEPP Comment: And the wind blows “all the time” except when it doesn’t such as during a hot Bermuda high during August with air conditioners running. Government “solving” its costly policies with more costly policies!]

Energy Issues – Non-US

Peak Demands For Natural Gas

By Paul Homewood, Not a Lot of People Know That, Dec 11, 2022

<https://notalotofpeopleknowthat.wordpress.com/2022/12/11/peak-demands-for-natural-gas/>

“Natural gas accounts for 43% of the UK’s primary energy consumption. In comparison, renewable energy only supplies 4%.

“Our reliance on gas though is much greater in winter months:”

Green Germany Hemorrhaging €1.5 Billion per DAY to Keep the Lights On

By Eric Worrall, WUWT, Dec 15, 2022

<https://wattsupwiththat.com/2022/12/15/green-germany-haemorrhaging-e1-5-billion-per-day-to-keep-the-lights-on/>

Germany’s Energy Woes Set To Continue As Government Stays Stuck On Wishful Thinking

Monthly newsletter from Prof. Fritz Vahrenholt (Translated, edited by P. Gosselin), No Tricks Zone, Dec 13, 2022

<https://notrickszone.com/2022/12/13/germanys-energy-woes-set-to-continue-as-government-stays-stuck-on-wishful-thinking/>

“How can Germany go without coal, nuclear?”

“Even nuclear power, which is in its final days of operation, supplied 3.8 GW, more than solar and wind power combined. How should Germany be supplied in such situations, if in 2024 the

added coal and lignite power plants have will all have been taken off the grid and the nuclear power plants have already been switched off in April 2023?”

EU energy crisis could worsen next year, agency warns

Sharon Udasin, The Hill, Dec 12, 2022

<https://thehill.com/policy/equilibrium-sustainability/3772000-eu-energy-crisis-could-worsen-next-winter-agency-warns/>

5 Important Energy Questions For 2023

By Leonard Hyman & William Tilles, Oil Price.com, Dec 08, 2022

<https://oilprice.com/Energy/General/5-Important-Energy-Questions-For-2023.html>

FES & Peak Demand Scenarios

By Paul Homewood, Not a Lot of People Know That, Dec 12, 2022

<https://notalotofpeopleknowthat.wordpress.com/2022/12/12/fes-peak-demand-scenarios/>

“All in all, we are probably looking at peak demand for electricity as high as 120 GW by 2035. And it will be much higher still if homeowners, who cannot afford heat pumps, opt for conventional electrical resistance heaters.”

Belgium's Energy Suicide?

By Drieu Godefridi, Gatestone Institute, Dec 15, 2022

<https://www.gatestoneinstitute.org/19231/belgium-energy-suicide>

Energy Issues -- US

End preferences for unreliable electricity

Today's grids are being ruined by systemic preferences for unreliable electricity. Congress should end these now.

By Alex Epstein, His Blog, Dec 14, 2022

https://alexepstein.substack.com/p/end-preferences-for-unreliable-electricity?utm_source=post-email-title&publication_id=513601&post_id=90361888&isFreemail=true&utm_medium=email

New PBS Series “Energy Switch” Is Must-Watch Energy TV

By Robert Bryce, Real Clear Energy, Dec 15, 2022

https://www.realclearenergy.org/articles/2022/12/15/new_pbs_series_energy_switch_is_must-watch_energy_tv_870275.html

“One of the reasons why our discussions about energy and climate policy are so shallow is simple: we don’t get to hear many real debates about the issues. Instead, we are bombarded by narrowly focused messaging from NGOs, trade groups, and climate activists who are pushing agendas that will perpetuate their favored industries.

“This lack of debate – combined with the innumeracy and scientific illiteracy of policymakers and the general public -- has resulted in a lot of bad energy policies at the local, state, and national levels.”

Attacks on Electric Grid Highlight Irresponsible Biden Energy Policies

By J. Kennerly Davis Real Clear Energy, Dec 14, 2022

https://www.realclearenergy.org/articles/2022/12/14/attacks_on_electric_grid_highlight_irresponsible_biden_energy_policies_870050.html

“Considering the serious threats facing our electric system, you would expect a responsible government to be working tirelessly to increase domestic transformer production and to be stockpiling the thousands of spares we will need for the worst emergencies.”

Congress Must Think Big on Competitive Energy Infrastructure

By Devin Hartman & Neil Chatterjee, Real Clear Energy, Dec 13, 2022

https://www.realclearenergy.org/articles/2022/12/13/congress_must_think_big_on_competitive_energy_infrastructure_870023.html

“This approach will save time, while granting FERC the discretion on implementation details that require expert judgment.”

[SEPP Comment: Recently, has FERC shown critical judgement?]

Washington’s Control of Energy

More Biden Oil And Gas Restrictions Are On The Horizon

By Felicity Bradstock, Oil Price.com, Dec 10, 2022

<https://oilprice.com/Energy/Crude-Oil/More-Biden-Oil-And-Gas-Restrictions-Are-On-The-Horizon.html>

Oil and Natural Gas – the Future or the Past?

Why U.S. Electricity Is Becoming Even More Natural Gas Dominant

By Jude Clemente, Forbes, Dec 11, 2022

<https://www.forbes.com/sites/judeclemente/2022/12/11/why-us-electricity-is-becoming-even-more-natural-gas-dominant/?sh=34b61ed8660f>

Nuclear Energy and Fears

Will nuclear fusion power save us?

By David Whitehouse, Net Zero Watch, Dec 14, 2022

<https://www.netzerowatch.com/will-nuclear-fusion-power-save-us/>

“A modern society needs high energy density power production systems. Without energy storage renewables are limited. We need fusion energy which has been promised for so long, but I think humans will have walked on Mars long before we get commercial fusion power.”

Fusion works, but uses a supernova budget to make a mini sun for a fraction of a second

By Jo Nova, Her Blog, Dec 15, 2022

<https://joannenova.com.au/2022/12/fusion-works-but-uses-a-supernova-budget-to-make-a-mini-sun-for-a-fraction-of-a-second/>

Small Modular Reactors Aren’t Difficult Nuclear Waste Generators

By Aaron Larson, Power, Dec 7, 2022

https://www.powermag.com/small-modular-reactors-arent-difficult-nuclear-waste-generators/?oly_enc_id=7809H6412578J0B

Alternative, Green (“Clean”) Solar and Wind

How Can Offshore Wind Farms Afford To Sell At £37/MWh

By Paul Homewood, Not a Lot of People Know That, Dec 16, 2022

<https://notalotofpeopleknowthat.wordpress.com/2022/12/16/how-can-offshore-wind-farms-afford-to-sell-at-37-mwh/>

[SEPP Comment: You don’t have to deliver what you bid?]

A Colder Period Ahead with A Chance of Scattered Light Snow over the Western Lowlands

By Cliff Mass, Weather Blog, Dec 15, 2022

<https://cliffmass.blogspot.com/2022/12/a-colder-period-ahead-with-chance-of.html>

“It is interesting to note that electric energy demand increases with the cold temperatures and that hydro is providing most of the energy (see recent Bonneville statistics below). [not shown here] Renewables (solar, wind) provide very, very little. It is important that when we need the most energy (when it is very hot and very cold) wind energy is generally minimal in our region. One reason I strongly support nuclear energy development.”

Germany Will Turn Into A Huge Industrial Wind Turbine Junkyard, “If Government Gets Its Way”

By P Gosselin, NO tricks Zone, Dec 14, 2022

<https://notrickszone.com/2022/12/14/germany-will-turn-into-a-huge-industrial-wind-turbine-junkyard-if-government-gets-its-way/>

Another “cheap” windfarm turning out expensive

Windfarms in 2025 Will Be No Cheaper

By Andrew Montford, Net Zero Watch, Dec 15, 2022

<https://www.netzerowatch.com/another-cheap-windfarm-turning-out-expensive/>

“Their refusal to admit that offshore windfarms costs are not coming down is depressing, and a fairly obvious indication that their motivations are religious rather than rational. Still, those of us who do care about facts soldier on. What else can we do?”

“Unfortunately, the actual spent to date, according to the published accounts, is £1.4bn. In other words, they have spent nearly half of the announced cost before starting offshore works! We can therefore safely say that this is not a £3billion windfarm. It will cost at least £4 billion, and probably more.”

Another “cheap” windfarm turning out expensive

By Paul Homewood, Not a Lot of People Know That, Dec 15, 2022

<https://notalotofpeopleknowthat.wordpress.com/2022/12/15/another-cheap-windfarm-turning-out-expensive/>

“For the record, Dogger Bank A has a current strike price of £51.06/MWh”

D.C. Council Advances Solar Bill Despite Equity Concerns

By Jacob Fenston, WAMU, Dec 7, 2022

<https://dcist.com/story/22/12/07/dc-council-passes-solar-expansion-bill/>

“The solar expansion bill ups the amount of local solar required under the District’s renewable portfolio standard. Current law calls for 10% of electricity in the city to come from local solar by 2041; this legislation increases that to 15%. Additionally, the bill maintains the penalty that electricity providers must pay if they fall short of the solar target. Under current law, that penalty would begin to phase out rapidly beginning in 2024. The legislation makes the phase-out more gradual over the next decade.”

Alternative, Green (“Clean”) Vehicles

The Lonely PHEV

By Donn Dears, Power For USA, Dec 13, 2022

<https://ddears.com/2022/12/13/the-lonely-phev/>

[SEPP Comment: The plug-in hybrid electric vehicles may be a far better alternative than the highly promoted battery-powered vehicles (BEVs) or EV.]

EVs May Have to Hibernate

By Duggan Flanakin, Real Clear Energy, Dec 12, 2022

<https://www.realclearenergy.org/articles/2022/12/12/so-evs-may-have-to-hibernate-869197.html>

But if EVs are the future...

By John Robson, Climate Discussion Nexus, Dec 14, 2022

<https://climatediscussionnexus.com/2022/12/14/but-if-evs-are-the-future/>

“China has used its ‘developing country’ pretensions to evade a variety of the multilateral environmental and climate change obligations that burden ‘First World’ countries.... the greenhouse gas output from Europe and North America have pretty much flatlined over the past quarter of a century, while China’s output has quadrupled.”

Carbon Schemes

New CPV Gas-Fired Power Plant Will Include Carbon Capture

By Darrell Proctor, Power, Dec 12, 2022

https://www.powermag.com/new-cpv-gas-fired-power-plant-will-include-carbon-capture/?oly_enc_id=7809H6412578JOB

Link to: Credit for Carbon Oxide Sequestration

Rule by IRS, Federal Register, Jan 15, 2021

<https://www.federalregister.gov/documents/2021/01/15/2021-00302/credit-for-carbon-oxide-sequestration>

California Dreaming

California commission cuts paybacks to rooftop solar customers

By Sharon Udasin, The Hill, Dec 15, 2022

<https://thehill.com/policy/equilibrium-sustainability/3777298-california-commission-cuts-paybacks-to-rooftop-solar-customers/>

“New customers will be subject to rates that are tied to how much electricity is worth at a given time of day. They’ll also need to pay a fixed monthly fee.”

“Echoing these sentiments, Environmental Working Group president Ken Cook described the outcome as ‘a disgrace and disservice not only to Californians, but to the nation.’

“It’s a complete retreat from California’s unrivaled position of leadership in the clean energy revolution,” Cook said.”

[SEPP Comment: Great to talk about leadership when you don’t have to pay the price.]

Health, Energy, and Climate

Climate Change will save lives and prevent heart attacks

By Jo Nova, Her Blog, Dec 13, 2022

<https://joannenova.com.au/2022/12/climate-change-will-save-lives-and-prevent-heart-attacks/>

Environmental Industry

Free economies are clean economies

By Drew Bond, Washington Examiner, Dec 10, 2022

<https://www.washingtonexaminer.com/opinion/op-eds/free-economies-are-clean-economies>

Science, Art And Mathematics

By Tony Heller, His Blog, Dec 16, 2022

<https://realclimatescience.com/2022/12/science-art-and-mathematics/>

Video

Beaches Are A Thing Of The Past

By Tony Heller, His Blog, Dec 16, 2022

<https://realclimatescience.com/2022/12/beaches-are-a-thing-of-the-past/>

David Viner Is Now Just A Thing Of The Past

By Paul Homewood, Not a Lot of People Know That, Dec 12, 2022

<https://notalotofpeopleknowthat.wordpress.com/2022/12/12/david-viner-is-now-just-a-thing-of-the-past-3/>

[SEPP Comment: According to Joe Bastardi of WeatherBell Analytics, many children in the middle of the US will discover what snow is.]

ARTICLES

1. How Fusion Works and Why It's a Breakthrough

American science scores a triumph, though it'll be decades before it yields a viable energy source.

By Steven E. Koonin and Robert L. Powell, WSJ, Dec. 14, 2022

https://www.wsj.com/articles/how-fusion-works-and-why-its-a-breakthrough-national-ignition-facility-laser-beam-laboratory-science-nuclear-weapon-11671052081?mod=hp_opin_pos_3#exrecs_s

TWTW Summary: Covered in the main text of This Week, above.

2. When Will Nuclear Fusion Energy Be Ready for Prime Time? Watch These Three Numbers

There are two more hurdles before it starts delivering clean, affordable energy

By Josh Zumbrun, WSJ, Dec 16, 2022

<https://www.wsj.com/articles/when-will-fusion-be-ready-for-prime-time-watch-these-three-numbers-11671159158>

TWTW Summary: Covered in the main text of This Week, above.

3. 'Degrowth' Looks As Bad As It Sounds

The same dingy old central planning in a trendy climate wrapper.

By James Freeman, WSJ, Dec. 15, 2022

https://www.wsj.com/articles/degrowth-looks-as-bad-as-it-sounds-11671142180?mod=hp_opin_pos_2#exrecs_s

Link to commentary: **Degrowth can work — here's how science can help**

Wealthy countries can create prosperity while using less materials and energy if they abandon economic growth as an objective.

By Jason Hickel, et al., Nature, Dec 12, 2022

<https://www.nature.com/articles/d41586-022-04412-x>

“It’s not clear what science has to do with any of this, but have the authors ever noticed how unhealthy the environments are in anti-capitalist societies?”

TWTW Summary: The review of the commentary begins:

“The politicization of scientific journals that were once highly esteemed is a sad story of our times. Some exasperated readers have even wondered whether they could do without experts entirely. Now along comes a commentary in Nature carrying the headline:

“Degrowth can work — here’s how science can help

“Wealthy countries can create prosperity while using less materials and energy if they abandon economic growth as an objective.

“The science here is of the luxuriously soft variety, and it’s probably best to avoid math if one is attempting to argue that societies can expand prosperity while stunting their economies. The authors, whose alleged expertise is concentrated in ecological economics, offer a number of provocative suggestions, such as:

“Reduce less-necessary production. This means scaling down destructive sectors such as fossil fuels, mass-produced meat and dairy, fast fashion, advertising, cars and aviation, including private jets. At the same time, there is a need to end the planned obsolescence of products, lengthen their lifespans and reduce the purchasing power of the rich.

“Less-necessary production is often in the eye of the beholder, but fuel, food, clothing and transportation might not be the first sectors that come to mind when consumers consider things they can do without. As for the goals of fewer private jets and a reduction in purchasing power among the rich, even ecological economists ought to understand that there will be a downside for those who produce what the rich purchase. The authors might consider what happened to shipyard workers when the U.S. Congress sought to soak the rich by applying a heavy tax on yachts in 1990. Sales plummeted, and so did jobs.

“Speaking of taxes, the Nature piece encourages a lot more of them, and no wonder because the authors envision much bigger governments.

The review goes on to state that people and corporations operate on expectations of rewards for the work such as wages and profits. Why expect anything else?