## The Week That Was: 2021-03-20 (March 20, 2021) Brought to You by SEPP (<u>www.SEPP.org</u>) The Science and Environmental Policy Project

**Quote of the Week:** "It is the task of statesmanship to mold, to balance, and to integrate these and other forces, new and old, within the principles of our democratic system-ever aiming toward the supreme goals of our free society." – President Dwight D. Eisenhower (Jan 17, 1961)

Number of the Week: - 73% in 2019

#### **THIS WEEK:** *By Ken Haapala, President, Science and Environmental Policy Project (SEPP)*

**Are There Any Statesmen?** *"Akin to, and largely responsible for the sweeping changes in our industrial-military posture, has been the technological revolution during recent decades.* 

"In this revolution, research has become central; it also becomes more formalized, complex, and costly. A steadily increasing share is conducted for, by, or at the direction of, the Federal government.

"Today, the solitary inventor, tinkering in his shop, has been overshadowed by task forces of scientists in laboratories and testing fields. In the same fashion, the free university, historically the fountainhead of free ideas and scientific discovery, has experienced a revolution in the conduct of research. Partly because of the huge costs involved, a government contract becomes virtually a substitute for intellectual curiosity. For every old blackboard there are now hundreds of new electronic computers.

"The prospect of domination of the nation's scholars by Federal employment, project allocations, and the power of money is ever present and is gravely to be regarded.

"Yet, in holding scientific research and discovery in respect, as we should, we must also be alert to the equal and opposite danger that public policy could itself become the captive of a scientific-technological elite.

"It is the task of statesmanship to mold, to balance, and to integrate these and other forces, new and old, within the principles of our democratic system-ever aiming toward the supreme goals of our free society." [Boldface added]

Most commentators on President Eisenhower's Farewell Address given sixty years ago emphasize that Eisenhower warned against an industrial-military complex dominating US public policy. But as importantly, perhaps more importantly today, Eisenhower also warned against a scientific-technological elite dominating public policy. With the Biden Administrating making "climate change" a priority, the fear of such dominance has become real. This TWTW will emphasize what is hidden from the public about the greenhouse effect and the exaggerations of the danger that increasing carbon dioxide presents. After water vapor, carbon dioxide is the second most important greenhouse gas.

Contrary to what the UN Intergovernmental Panel on Climate Change (IPCC), NASA's Goddard Institute on Space Studies (NASA-GISS), and other government organizations proclaim, the greenhouse effect is poorly measured by changes in surface temperatures, because surface temperatures have been changing for hundreds of millions of years for reasons not fully understood.

Atmospheric temperature trends are a more direct measurement of changing greenhouse effect, but they do not separate changes in water vapor from carbon dioxide. These measurements have been taken for over 40 years. The most direct measurements of the influence of carbon dioxide are found in the databases of observations from the atmosphere such as the high-resolution transmission molecular absorption database (HITRAN), which has been compiled for about 50 years. These observations support decades of laboratory experiments which were used to conclude that increasing CO2 in today's atmosphere would not have a significant effect on temperatures.

In short, a politically motivated scientific-technological elite has proclaimed a "climate crisis" which does not exist. As is occurring in Western Europe, the American public may fall victim to this false crisis. See Article below and https://www.ourdocuments.gov/doc.php?flash=false&doc=90&page=transcript

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**Green Dreams:** On his blog introducing a new study by Elmira Aliakbari and him on the economic impact of a Canadian carbon tax on the economy of Canada, economist Ross McKitrick makes an insightful observation. He writes:

"We project a GDP decline of about 1.8% and a loss of 184000 jobs nationally [Updated]. And we show that these estimates are right in line with numbers computed for policies at the time of Kyoto. The underlying model I developed is a hybrid CGE/Input-Output model with considerable provincial and sectoral detail. I developed my first CGE model (as part of my Ph.D. dissertation) which I used to model carbon taxes back before most people had ever heard of them. **The data availability and computing power have improved a lot since then. Unfortunately, what has not improved is government policy analysis: it's all but vanished. One of the themes in our report is the contrast between the extent of analysis and disclosure 20 years ago regarding the costs of implementing Kyoto versus the total absence today. Some of the modeling groups and capabilities are simply gone, but more generally the government has decided it doesn't want to know the answer.**" [Boldface added]

This desire to not know the consequences of their policies appears to be common among politicians in the US and Western Europe as well. It appears that countries that have recently emerged from authoritarian governments, such as Poland, are genuinely concerned with the consequences of government policies, while the traditional West is indifferent. See links under Challenging the Orthodoxy.

**Real Nightmares:** Paul Robeson of "Climate Discussion Nexus" drew attention to a paper by Vaclav Smil of the University of Manitoba published in 2019 by *Substantia*: An International Journal of the History of Chemistry. A Fellow of the Royal Society of Canada, Smil has written extensively on energy, environmental population change, food production, history of technical innovation, risk assessment, and public policy including books such as **Energy and Civilization** and the just published **Grand Transitions: How the Modern World Was Made.** 

In his paper "What we need to know about the pace of decarbonization" Smil goes into some detail on what Western politicians do not wish to know – the tremendous difficulties and costs of decarbonization, particularly since there are no alternatives to fossil fuels, hydropower, and nuclear power to generate reliable electricity and to provide transportation on the scale needed for modern civilization. In his essay Smil writes:

"Energy transitions have been among the key defining processes of human evolution (Smil 2017a). The first (millennia-long) transition was from the reliance on traditional biofuels (wood, charcoal, crop residues) and animate prime movers (human and animal muscles) to increasingly common reliance on inanimate energy converters (water wheels, windmills) and on better harnessed draft animals for fieldwork and in transportation. Transition to fossil fuels (burned to produce heat, thermal electricity and kinetic energy) began in England already during the 16th century but it took off in Europe and North America only after 1800, and in most of Asia only after 1950...." [Boldface added]

As Smil notes, the shift from traditional fuels and muscle power to fossil fuels began in the West and did not really begin in Asia until after 1950 and has not yet fully taken hold in Africa. Burning traditional fuels such as wood and dung indoors is not pleasant and can lead to significant health problems such as respiratory diseases and eye infections. Further, Smil notes that use of fossil fuels has resulted in a decarbonization of energy sources. In the second paragraph he writes:

"Post-1800 transition from traditional biofuels to fossil fuels has resulted in gradual relative decarbonization but in enormous growth in absolute emissions of CO2. Relative decarbonization is best traced by the rising H:C (hydrogen to carbon) ratios of major fuels: they rise from no more than 0.5 for wood and 1.0 for coal to 1.8 for the lightest refined fuels (gasoline and kerosene) and, obviously, to 4.0 for methane (CH4), the dominant constituent of natural gas (Smil 2017b).

Reversing the historical order of development, Smil gives specifics on how CO2 emissions per unit of energy increase as the ratio of hydrogen to carbon increases with changing fuels going back today's natural gas to low-quality coal and wood.

It was not until after the 1950s with the economic growth of Asia, that carbon dioxide-caused warming became a concern in the West with false claims of dire consequences. And herein is a major dilemma for the Biden Administration's Climate Envoy, John Kerry, who probably will not understand it. The nations emerging from extreme poverty understand the benefits of fossil fuels, while many Western politicians do not understand them or do not wish to admit them.

Smil does not dispute the claims of the IPCC and its followers including NASA-GISS and NOAA, and states:

"The most important fact is that during those decades of rising concerns about global warming the world has been running into fossil carbon, not moving away from it. Since 1992 absolute emissions of CO2 from fossil fuel combustion have declined significantly (by nearly 20%) in the EU28 and have grown only marginally (in each case by about 5%) in the US and Japan (Boden et al. 2017; — but these accomplishments have not set the world on the road to decarbonization as emissions have nearly tripled in Asia, largely because the Chinese combustion of fossil fuels has almost quadrupled (Boden et al. 2017; PBL 2018). As a result, global emissions of CO2 increased by more than 60% since 1992, setting yet another record in 2018.

"Historians of energy transitions are not surprised by this development, as history shows that neither the dominant sources of primary energy nor the common energy converters can be displaced rapidly and completely in short periods of time. The high degree of the global dependence on fossil carbon and the enormous scale of the fuel-dominated global energy system mean that the unfolding energy transition will inevitably follow the progress of all previous largescale primary energy shifts and that it will be a gradual, prolonged affair (Smil 2017a). In 1800 traditional biomass fuels (wood, charcoal, crop residues, dung) supplied all but a tiny share of the world's primary energy, a century later their share was about 50%, and at the beginning of the 21st century they still accounted for nearly 10%. This means that even after more than two centuries the world has not completed the shift from traditional biofuels to modern sources of primary energy. Coal's share of global primary energy supply has been in retreat for generations as the reliance on hydrocarbons has grown -- but the fuel still supplies nearly 30% of the total requirement. That is still more than natural gas (whose commercial extraction began about 150 years ago but whose share of total supply has been growing slower than expected) and in absolute terms its output is more than eight times larger than it was in 1900 when the fuel dominated the global energy supply. And while most economies began to reduce their reliance on crude oil in the aftermath of OPEC's two rounds of large price increases during the 1970s, the fuel remains the dominant source of the world's primary energy, supplying nearly 40% of the total.

"The unfolding transition toward non-carbon energies has to take place on unprecedented scales. Annual extraction of fossil fuels now includes about 7.7 Gt of coal, 4,4 Gt of crude oil and 3.7 trillion cubic meters of natural gas, altogether an equivalent of nearly 9 Gt of crude oil or about 370 EJ (BP 2018). This grand total is the flux that matters: unlike all other previous shifts in primary energy use, the unfolding decarbonization can achieve its goal -- eventual elimination of fossil carbon -- only when it succeeds on the global scale. Substantial decline of carbon emissions, even an instant decarbonization of energy supply in a major advanced economy, makes little difference as long as the greenhouse gas emissions from other sources and from other countries keep on rising. Even after some three decades since the beginning of high-level global warming concerns the unfolding transition is still in its earliest stage and even the relative shift has been, so far, minor. When the shares of primary energy are calculated by excluding traditional biofuels and by converting all non-thermal primary electricity by using its energy equivalent (1 Wh=3,600 J), fossil fuels supplied 91.3% of the world's primary energy in 1990 and by 2017 their share was still 90.4%. As with many phenomena in early stages of expansion, the combined growth of contributions made by new renewables (wind and solar electricity generation and modern biofuels) has been rapid: in the year 2000 they supplied only about 0.2% of the global primary energy supply, their share reached 1.3% by 2010 and 2.2% by 2017 -- but that was still well behind the contributions made by either hydro or nuclear generation.

"Of course, the shares of new renewables are significantly higher for electricity generation because this sector has been the main focus of the unfolding drive for decarbonization. Photovoltaic cells and wind turbines generated a mere 0.2% of the world's electricity in the year 2000, the share reached 4.5% in 2015 and nearly 7% in 2018 (BP 2018). **But even if the** decarbonization of global electricity generation were to proceed at an unprecedented pace, only the availability of affordable, massive-scale electricity storage would make it possible to envisage a reliable system that could rely solely on intermittent renewable energies of solar radiation and wind. Even securing just three days-worth of storage for a megacity of more than 10 million people that would be cut off from its intermittent renewable sources (a common occurrence during the monsoonal season in Asia with heavily overcast skies and high winds) would be prohibitively expensive by using today's commercial batteries.

"Setting aside exaggerated media claims, a technological breakthrough meeting that requirement appears unlikely in the near future as pumped hydro storage (originally introduced during the 1890s) remains today the only way to store electricity at gigawatt scale. And even major advances toward large-scale electricity storage would not be enough to bring about rapid decarbonization of the global energy supply as electricity generation accounts for no more than 20% of total final energy consumption, and as decarbonizing transportation, heating, agriculture, and industrial production is considerably more difficult than installing new intermittent capacities, connecting them with major load centers and securing the required back-up supply." [Boldface added.]

Smil then goes into what is needed for the electrification of passenger vehicles. He follows with the unlikely possibility for electrification of trucking, shipping, and flying. He states that "today's dominant liquid transportation fuels are nearly 50 times as energy dense as our best commercial batteries - and this gap is not to be closed anytime soon." In additional, seasonal heating in much of Eurasia and North America relies on natural gas. He further writes:

"... And even more intractable challenges come with the decarbonization of industries producing what I have called the **four pillars of modern civilization: ammonia, cement, steel and plastics** (J.P. Morgan 2019).

"Mass-scale production of these materials (annual outputs are now close to 200 Mt for ammonia, about 4.5 Gt for cement, 1.6 Gt for steel ad about 300 Mt for all kinds of plastics) now depends on large-scale inputs of fossil fuels, both for process heat and as feedstocks. Without Haber-Bosch synthesis of ammonia (with natural gas as the dominant feedstock and fuel), nearly half of today's humanity would not be alive as even the most assiduous recycling of all available organic matter could not supply enough nitrogen to feed nearly 8 billion people. Cement and steel are the two irreplaceable infrastructural components. Cement is produced in kilns heated by low-quality fossil fuels, two-thirds of all steel are made in basic oxygen furnaces from pig iron that is smelted in blast furnaces with the aid of about one billion tonnes of coke, augmented by natural gas (Smil 2016). And gaseous and liquid hydrocarbons are the dominant feedstocks (and fuel) for synthesizing a wide variety of plastics."

"All of these processes have one important characteristic in common: there are no available noncarbon alternatives that could be readily deployed on mass commercial scales. There are some interesting innovations, and entirely new pathways might be possible -- ranging from new catalyses for ammonia synthesis (Ashida et al. 2019) to hydrogen-based steelmaking (Green 2018) — but none of these innovations has been deployed even as pilot plant experiments and, once again, it is obvious that scaling up those processes that may eventually prove acceptable in order to reach annual outputs of hundreds of millions, even billions, of tonnes is a task that would take generations to accomplish."

After discussing the economic development in China and India, Smil concludes:

"In conclusion, the verdict — based on the history of past energy transitions, on the unprecedented scales of the unfolding shift, on the limits of alternative pathways, and on the

enormous and immediate energy needs of billions of people in low-income countries — is clear. Designing hypothetical roadmaps outlining complete elimination of fossil carbon from the global energy supply by 2050 (Jacobson et al. 2017) is nothing but an exercise in wishful thinking that ignores fundamental physical realities. And it is no less unrealistic to propose legislation claiming that such a shift can be accomplished in the US by 2030 (Ocasio-Cortez 2019). Such claims are simply too extreme to be defended as aspirational. The complete decarbonization of the global energy supply will be an extremely challenging undertaking of an unprecedented scale and complexity that will not be accomplished — even in the case of sustained, dedicated and extraordinarily costly commitment — in a matter of few decades." [Boldface added. References are in the text and not presented here.]

It appears that the green dreams of western politicians will become nightmares for the public in countries that implement them. No doubt, scientists in China and India understand Atomic, Molecular, and Optical (AMO) Physics as well as radiative transfer and the greenhouse effect. Unlike western leaders, leaders of these countries will pay lip service to "climate envoys" but will do little to implement policies that will impoverish their countries. See links under Challenging the Orthodoxy, Defending the Orthodoxy, Questioning the Orthodoxy, Change in US Administrations, Expanding the Orthodoxy, and Alternative, Green ("Clean") Energy -- Storage \*\*\*\*\*\*\*\*\*\*

**Energy Rights:** The concepts of rights and powers under the US Constitution are frequently misunderstood. Rights belong to the people and are numerous and often poorly defined. The Constitution grants powers to the Federal government to interfere with these rights. When the Constitution was approved, these powers were few, defined, and limited.

In stating that India will not concede its fossil fuel ambitions to the carbon border taxes the G7 leaders intend to propose, published by the Global Warming Policy Forum, Vijay Jayaraj of India brings up the concept of Energy Rights. He does so within the context of the government of India.

Under the US Constitution, individuals have energy rights. The EPA has claimed CO2 is a pollutant but failed to produce physical evidence supporting the claim. Global climate models remain unverified and unvalidated, so they are little more than sophisticated and highly manipulated speculation. The tremendous benefits of increasing CO2 in the atmosphere continue and predictions of dire consequences of such increases are not supported. A review of projections of biomass changes in Africa by CO2 Science states:

"Fast forward to the present and science has largely rebutted all of the alarmist projections in this regard. In fact, detailed observations at regional and global scales have confirmed what thousands of field and laboratory studies have demonstrated -- that rising atmospheric CO2 concentrations enhance terrestrial ecosystem productivity (for proof of this statement, see the multitude of reviews we have posted in our Subject Index over the past quarter century under the heading **Biospheric Productivity** on this page). Yet despite these observational confirmations, model-based studies have -- with little exception -- continued to project a future of vegetative demise." [Boldface was Italics in the original.]

Will Federal regulations limiting CO2 emissions deprive Americans of their energy rights? See links under Change in US Administrations, Problems in the Orthodoxy and Review of Recent Scientific Articles by CO2 Science. **Limits of Scholarship:** In discussing the anti-nuclear bias in many journals, Ted Nordhaus of The Breakthrough Institute writes:

"But the history of anti-nuclear scholarship pretty strongly suggests that peer-review is no defense in the face of tenured academics with strong ideological commitments. Motivated cognition is a powerful thing and faced with an inconvenient truth, that nuclear energy, which environmentalists have long viewed as worse than fossil fuels, is actually one of the better options we have for cutting carbon emissions and addressing climate change, researchers like Sovacool are entirely capable of conjuring scholarly falsehoods via the magic of models, regression analyses, and highly selective data."

The same applies to many journals on issues of climate. See links under Nuclear Energy and Fears.

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14<sup>th</sup> ICCC Rescheduled: The 14<sup>th</sup> International Conference on Climate Change presented by The Heartland Institute has been rescheduled to October 15 to 17, 2021, at Caesars Palace in Las Vegas. See <u>https://climateconference.heartland.org/</u> \*\*\*\*\*\*\*\*\*\*

Number of the Week: – 73% in 2019. In writing on energy stories for 2021, Jude Clemente presents graphs from BP and Arthur D. Little, JTC. showing that in 2019, 73% of world's oil production was from National Oil Companies, not privately owned ones and 90% of the world's proven reserves is controlled by National Oil Companies. In general, National Oil Companies are owned or controlled by authoritarian governments such as Russia, China, and those in OPEC.

Climate alarmists label those who contest claims of a climate crisis as shills for Exxon. Can climate alarmists who make such claims be labeled as shills of authoritarian governments? See links under Oil and Natural Gas – the Future or the Past?

## **NEWS YOU CAN USE:**

Science: Is the Sun Rising?

Gamma Ray Observatory discovers origin of highest-energy cosmic rays in galaxy By Staff Writers, Los Alamos NM (SPX), Mar 16, 2021 https://www.spacedaily.com/reports/HAWC\_Gamma\_Ray\_Observatory\_discovers\_origin\_of\_hig hest\_energy\_cosmic\_rays\_in\_the\_galaxy\_999.html Link to paper: HAWC observations of the acceleration of very-high-energy cosmic rays in the Cygnus Cocoon By A. U. Abeysekara, et al. Nature Astronomy, March 11, 2021 https://www.nature.com/articles/s41550-021-01318-y

## 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 <u>https://www.heartland.org/media-library/pdfs/CCR-II/CCR-II-Full.pdf</u> *Summary*: <u>https://www.heartland.org/\_template-assets/documents/CCR/CCR-II/Summary-for-Policymakers.pdf</u>

#### **Climate Change Reconsidered II: Biological Impacts**

Idso, Idso, Carter, and Singer, Lead Authors/Editors, Nongovernmental International Panel on Climate Change (NIPCC), 2014 <u>http://climatechangereconsidered.org/climate-change-reconsidered-ii-biological-impacts/</u> *Summary*: <u>https://www.heartland.org/media-library/pdfs/CCR-IIb/Summary-for-Policymakers.pdf</u>

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

By Multiple Authors, Bezdek, Idso, Legates, and Singer eds., Nongovernmental International Panel on Climate Change, April 2019 <u>http://store.heartland.org/shop/ccr-ii-fossil-fuels/</u> Download with no charge: <u>http://climatechangereconsidered.org/wp-content/uploads/2019/01/Climate-Change-</u> <u>Reconsidered-II-Fossil-Fuels-FULL-Volume-with-covers.pdf</u>

## 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 <u>http://climatechangereconsidered.org/</u> Download with no charge: <u>https://www.heartland.org/policy-documents/why-scientists-disagree-about-global-warming</u>

## 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 <u>https://www.heartland.org/\_template-assets/documents/publications/SeaLevelRiseCCRII.pdf</u>

## Challenging the Orthodoxy

#### Estimated Impacts of a \$170/Tonne Carbon Tax On the Canadian Economy. By Ross McKitrick, His Blog, Mar 16, 2021 <u>https://www.rossmckitrick.com/</u> Link to report: Estimated Impacts of a \$170 Carbon Tax in Canada. By Ross McKitrick and Elmira Aliakbari, The Fraser Institute, March 16, 2021

https://www.rossmckitrick.com/uploads/4/8/0/8/4808045/impact-170 -carbon-tax-rev-post.pdf

## What we need to know about the pace of decarbonization

By Vaclav Smil, Substantia. An International Journal of the History of Chemistry, 2019 <u>https://vaclavsmil.com/wp-content/uploads/2020/01/Substantia.pdf</u>

Marc Morano: Green Fraud [Book Review] By Lubos Motl, The Reference Frame, Mar 13, 2021 https://motls.blogspot.com/2021/03/marc-morano-green-fraud.html#more

How bad could it get By Joseph D'Aleo, CCM, ICECAP, Mar 14, 2021 http://icecap.us/index.php/go/joes-blog/how\_bad\_could\_it\_get/

## The Water Planet Earth And Its Climate

By Boris Winterhalter, WUWT, Mar 16, 2021 https://wattsupwiththat.com/2021/03/16/the-water-planet-earth-and-its-climate/

## Wind and Solar Realities

By Donn Dears, Power For USA, Mar 16, 2021 https://ddears.com/2021/03/16/wind-and-solar-realities/ [SEPP Comment: Simple, effective video based on hard facts, not green dreams.]

## **Net Zero FOI**

By Paul Homewood, Not a Lot of People Know That, Mar 18, 2021 <u>https://notalotofpeopleknowthat.wordpress.com/2021/03/17/net-zero-foi/</u> "Carbon Capture. They admit they have no idea how much this could potentially cost:"

## Hollow claims to world-leadership: Britain's Industrial Decarbonisation Strategy

By John Constable, GWPF Energy Editor, GWPF, Mar 18, 2021 <u>https://www.thegwpf.com/beis-low-carbon-industrial-strategy/</u> [SEPP Comment: Figure 2 of this essay, Manufacturing as a percentage of Gross Domestic Product in Major OECD Economies, is revealing]

## **Defending the Orthodoxy**

**Biden's "Existential Threat" Climate Speech (January 27, 2021)** By Robert Bradley Jr., Master Resource, Mar 19, 2021 <u>https://www.masterresource.org/biden-joe-climate-energy-policy/bidens-existential-threat-climate-speech-1-27-2021/</u>

## I'm a climate scientist - here's three key things I have learned over a year of COVID

By Piers Forster, Professor of Physical Climate Change; Director of the Priestley International Centre for Climate, University of Leeds, The Conversation, Mar 10, 2021 <u>https://theconversation.com/im-a-climate-scientist-heres-three-key-things-i-have-learned-over-a-year-of-covid-156791</u> [SEPP Comment: Just need more spending!]

## **Defending the Orthodoxy – Bandwagon Science**

NASA Earth Observatory By Staff, NASA, Accessed Mar 17, 2021 <u>https://earthobservatory.nasa.gov/world-of-change/global-temperatures</u> [SEPP See link immediately below.]

## NASA Joins White House National Climate Task Force

By Staff, NASA, Mar 18, 2021 [H/t WUWT] https://www.nasa.gov/press-release/nasa-joins-white-house-national-climate-task-force [SEPP Comment: When will NASA discover the globe has an atmosphere where the greenhouse effect occurs?]

Reducing global warming matters for freshwater fish species Press Release by Radboud University Nijmegen, Mar 15, 2021 [H/t Bernie Kepshire] https://phys.org/news/2021-03-global-freshwater-fish-species.html Link to paper: Threats of global warming to the world's freshwater fishes By Valerio Barbarossa, Nature Communications, Mar 15, 2021

https://www.nature.com/articles/s41467-021-21655-w

[SEPP Comment: High latitude and altitude lakes don't freeze in the winter and warm in the summer?]

## **Questioning the Orthodoxy**

Getting Industry To Go Green Will Not Come Cheaply–Telegraph Wakes Up At Last! By Paul Homewood, Not a Lot of People Know That, Mar 18, 2021 <u>https://notalotofpeopleknowthat.wordpress.com/2021/03/18/getting-industry-to-go-green-will-not-come-cheaply-telegraph-wakes-up-at-last/</u>

"It all makes a massive assumption that a country with just 1 percent of the global population will come up with ways to solve these problems. It might be more cost effective to let others do that and then nick (copy) the technology."

## **Twenty-Five Years Of Settled Science**

By Tony Heller, His Blog, Mar 17, 2021 https://realclimatescience.com/2021/03/twenty-five-years-of-settled-science/

## After Paris!

## John Kerry sees his shadow

By John Robeson, Climate Discussion Nexus, Mar 17, 2021

https://climatediscussionnexus.com/2021/03/17/john-kerry-sees-his-shadow/

"According to John Kerry, who flew a million kilometers in three years to save the world from the effects of your use of motor vehicles, we have nine years to save the planet and also nine months. Because the next gabfest, COP26, scheduled for Nov. 1-12 in Glasgow, Scotland (temperature at time of writing a blazing 9°), is 'this most critical moment where we have the capacity to define the decade of the 20s which will make or break us to get to net zero carbon in 2050.""

## Change in US Administrations

Happy Anny, Most Cynical EPA Memo Ever, By Staff. Government Accountability & Oversight, Mar 18, 2021 [H/t WUWT] https://govoversight.org/happy-anny-most-cynical-epa-memo-ever/

## Biden eyes tougher approach to measuring impact of greenhouse gases

By Rachel Frazin, The Hill, Mar 13, 2021

https://thehill.com/policy/energy-environment/543040-biden-eyes-tougher-approach-to-measuring-impact-of-greenhouse-gas

The Biden administration is expected to give even greater weight to the negative effects of greenhouse gas emissions as it works on developing new "social costs" of carbon, methane and nitrous oxide that will impact government regulations.

[SEPP Comment: And continue to ignore the enormous benefits?]

## Social Benefits of Carbon Dioxide

The social costs of carbon cancelation

Banning carbon-based fuels will impose enormous costs that Team Biden deliberately ignores By Paul Driessen, WUWT, Mar 15, 2021 https://wattsupwiththat.com/2021/03/15/the-social-costs-of-carbon-cancelation/

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

**Boris Johnson's G7 dilemma: Carbon border tax proposals vs geopolitical realism** By Vijay Jayaraj, India, Via GWPF, Mar 17, 2021 <u>https://www.thegwpf.com/boris-johnsons-g7-dilemma-carbon-border-tax-proposals-vs-geopolitical-realism/</u>

## Coal Can't Be So Bad: China Doubles The Coal Power Capacity That OECD Countries Take Offline

By P Gosselin, No Tricks Zone, Mar 13, 2021 https://notrickszone.com/2021/03/13/coal-cant-be-so-bad-china-doubles-the-coal-power-capacitythat-oecd-countries-take-offline/

## Nations Aren't Acting as If Climate Change Poses Existential Crisis

By H. Sterling Burnett. The Heartland Institute. Mar 17, 2021 <u>https://redstate.com/heartlandinstitute/2021/03/17/nations-arent-acting-as-if-climate-change-poses-existential-crisis-n343694</u>

## Germany hits climate target thanks to pandemic

By AFP Staff Writers, Berlin (AFP), March 16, 2021 <u>https://www.energy-</u> <u>daily.com/reports/Germany\_hits\_climate\_target\_thanks\_to\_pandemic\_999.html</u>

## Seeking a Common Ground

## Climate adaptation sense. Part III: Dynamic Adaptation Policy Pathways

By Judith Curry, Climate Etc. Mar 17, 2021 https://judithcurry.com/2021/03/17/climate-adaptation-sense-part-iii-dynamic-adaptation-policypathways/#more-27355

"This post is the third (and final) part in the series on New Jersey sea level rise:"

## Going Honest on GHG Emissions: The Milloy Petition (and early success)

By Robert Bradley Jr., Master Resource, Mar 16, 2021 https://www.masterresource.org/greenwashing-2/going-honest-on-ghg-emissions-the-milloypetition-and-its-first-success/

## GWPF welcomes Government plans to reform scientific advisory policy

Press Release, Global Warming Policy Forum, Mar 16, 2021 https://www.thegwpf.com/gwpf-welcomes-government-plans-to-reform-scientific-advisorypolicy/

## How To Fight A Disinformation Campaign

By Alex Berezow, ACSH, Mar 10, 2021 https://www.acsh.org/news/2021/03/10/how-fight-disinformation-campaign-15391

#### **Independent research?**

By John Robeson, Climate Discussion Nexus, Mar 17, 2021 https://climatediscussionnexus.com/2021/03/17/independent-research/

#### Science, Policy, and Evidence

Is China About To "Win" In The Battle For The Future?

By Francis Menton, Manhattan Contrarian, Mar 17, 2021

https://www.manhattancontrarian.com/blog/2021-3-17-is-china-about-to-win-in-the-battle-for-the-future

Link to failed economic predictions: Soviet Growth & American Textbooks By Alex Tabarrok, Marginal Revolution, Jan 4, 2010 https://marginalrevolution.com/marginalrevolution/2010/01/soviet-growth-american-

textbooks.html

## Minister's irresponsible statement on Cumbrian mine could cost the public tens of millions in the Courts

Press Release, GWPF, Mar 17, 2021 https://www.thegwpf.com/ministers-irresponsible-statement-on-cumbrian-mine-could-cost-thepublic-tens-of-millions-in-the-courts/

## Review of Recent Scientific Articles by CO2 Science

Projecting Biomass Changes in Africa for the End of the 21st Century Martens, C., Hickler, T., Davis-Reddy, C., Engelbrecht, F., Higgins, S.I., von Maltitz, G.P., Midgley, G.F., Pfeiffer, M. and Scheiter, S. 2020. Large uncertainties in future biome changes in Africa call for flexible climate adaptation strategies. *Global Change Biology*, doi: 10.1111/gcb.15390. Mar 19, 2021 http://www.co2science.org/articles/V24/mar/a9.php

## Impacts of Ocean Acidification and Warming on a Crustose Coralline Algae

Kim, J.-H., Kim, N., Moon, H., Lee, S., Jeong, S.Y., Diaz-Pulido, G., Edwards, M.S., Kang, J.-H., Kang, E.J., Oh, H.-J., Hwang, J.-D. and Kim, I.-N. 2020. Global warming offsets the ecophysiological stress of ocean acidification on temperate crustose coralline algae. *Marine Pollution Bulletin* 157: 111324. Mar 17. 2021 http://www.co2science.org/articles/V24/mar/a8.php

## The Response of Macauba Palm to Drought and CO2

Rosa, B.L., Souza, J.P. and Pereira, E.G. 2019. Increased atmospheric CO2 changes the photosynthetic responses of *Acrocomia aculeate* (Arecaceae) to drought. *Acta Botanica Brasilica* 33: 486-497. Mar 15, 2021 http://www.co2science.org/articles/V24/mar/a7.php

## Model Issues

Clouds From Both Sides Now Guest Post by Willis Eschenbach, WUWT, Mar 15, 2021 <u>https://wattsupwiththat.com/2021/03/15/clouds-from-both-sides-now/</u> [SEPP Comment: The greatest uncertainty within the models may be clouds. But the greatest disparity between the models and nature is the greenhouse effect.]

Antarctic peninsula likely to warm over next two decades Press Release by Laura Arenschield, The Ohio State University, March 15, 2021 <u>https://phys.org/news/2021-03-antarctic-peninsula-decades.html</u> Temperature and precipitation projections for the Antarctic Peninsula over the next two decades: contrasting global and regional climate model simulations By Deniz Bozkurt, Climate Dynamics, Feb 8, 2021 <u>https://link.springer.com/article/10.1007/s00382-021-05667-2</u> "This study presents near future (2020–2044) temperature and precipitation changes over the Antarctic Peninsula under the high-emission scenario (RCP8.5)."

#### Measurement Issues -- Surface

Broken Water Pipe Takes Out U.S. Buoy Data By Cliff Mass, Weather Blog, Mar 14, 2021 https://cliffmass.blogspot.com/2021/03/broken-water-pipe-takes-out-us-buoy-data.html

## **Changing Weather**

**Increasing Hurricane Frequency Due To Better Observation, Not Climate Change–BBC** By Paul Homewood, Not a Lot of People Know That, Mar 16, 2021 <u>https://notalotofpeopleknowthat.wordpress.com/2021/03/16/increasing-hurricane-frequency-due-to-better-observation-not-climate-change-bbc/</u>

## Scientists: Climate-whipped winds pose Great Lakes hazards

By John Flesher, Phys.org, Mar 15, 2021 [H/t Bernie Kepshire] <u>https://phys.org/news/2021-03-scientists-climate-whipped-pose-great-lakes.html</u> Link to paper: Increases in Great Lake winds and extreme events facilitate interbasin coupling and reduce water quality in Lake Erie Dr. Aidin Jakhan Nature, Mar 11, 2021

By Aidin Jabbar, Nature, Mar 11, 2021

https://www.nature.com/articles/s41598-021-84961-9

[SEPP Comment: Based on changes in the Atlantic Multidecadal Oscillation and Multivariate El Niño/Southern Oscillation in August. But don't worry Mr. Mann claims the AMO does not exist.]

## Changing Climate

#### Humanity survived previous warming cycles

Projects that forecast dire effects from the current warming receive Government funds, but no funds for answers about the causes of previous warming cycles that occurred before the Industrial Revolution 1760 - 1840.

By Ronald Stein, WUWT, Mar 17, 2021

https://wattsupwiththat.com/2021/03/17/humanity-survived-previous-warming-cycles/

[SEPP Comment: Not to mention humanity survived the last interglacial and the early part of the Holocene when it was warmer than today.]

## **Changing Seas**

## Simulated stability of the Atlantic Meridional Overturning Circulation during the Last Glacial Maximum

By Frerk Pöppelmeier, et al. Climate Past, Mar 11, 2021 https://cp.copernicus.org/articles/17/615/2021/

From the abstract: "Here, we investigate the evolution of the AMOC as it responds to freshwater perturbations under improved LGM boundary conditions in the Bern3D intermediate complexity model. Particularly, we consider the effect of an open versus a closed Bering Strait and the effect of increased tidal dissipation as a result of the altered bathymetry due to the lower glacial sea level stand."

## Changing Cryosphere – Land / Sea Ice

Its a Bit more Complicated Guest post by Rud Istvan, WUWT, Mar 16, 2021 https://wattsupwiththat.com/2021/03/16/its-a-bit-more-complicated/ Link to article: Scientists stunned by fossils found deep beneath Greenland's ice sheet The discovery could have huge implications for climate change studies.

By Steph Panecasio, CNET, Mar 15, 2021

https://www.cnet.com/news/scientists-stunned-by-fossils-found-deep-beneath-greenlands-ice-sheet/

Link to paper: A multimillion-year-old record of Greenland vegetation and glacial history preserved in sediment beneath 1.4 km of ice at Camp Century By Andrew J. Christ, et al. PNAS, Mar 30, 2021

https://www.cnet.com/news/scientists-stunned-by-fossils-found-deep-beneath-greenlands-ice-sheet/

# New Study: 75% Of Recent Arctic Sea Ice Decline Is 'Accounted For' By An Internal Variability Pattern (PNA)

By Kenneth Richard o, No Tricks Zone, Mar 18, 2021 https://notrickszone.com/2021/03/18/new-study-75-of-recent-arctic-sea-ice-decline-is-accounted-

for-by-an-internal-variability-pattern-pna/

Link to one paper: Acceleration of western Arctic sea ice loss linked to the Pacific North American pattern

By Zhongfang Liu, et al. Nature Communications, Mar 9, 2021 https://www.nature.com/articles/s41467-021-21830-z

# Record-high Arctic freshwater affecting marine environment and Atlantic Ocean currents Freshwater is accumulating in the Arctic Ocean

Press Release, NSF, Mar 16, 2021

https://www.nsf.gov/discoveries/disc\_summ.jsp?cntn\_id=302312&WT.mc\_id=USNSF\_1 Link to paper: Labrador Sea freshening linked to Beaufort Gyre freshwater release By Jiaxu Zhang, et al. Nature Communications, Feb 23, 2021

https://www.nature.com/articles/s41467-021-21470-3

[SEPP Comment: Probably nothing as the freshwater rush from thousands of feet of ice melting after the last glacial maximum and the Bering Strait well above sea level, forming a land bridge between Asia and North America.]

#### **Communicating Better to the Public – Use Yellow (Green) Journalism?** BBC Complaint No 3

By Paul Homewood, Not a Lot of People Know That, Mar 18, 2021 https://notalotofpeopleknowthat.wordpress.com/2021/03/16/bbc-complaint-no-3/

## BBC sends Roger Harrabin & Co. off to Wales

By Staff, GWPF, Mar 18, 2021 https://www.thegwpf.com/bbc-sends-roger-harrabin-co-off-to-wales/

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

On the effects of the ocean on atmospheric CFC-11 lifetimes and emissions By Peidong Wang, et al. PNAS, Mar 23, 2021 [H/t Bernie Kepshire] <u>https://www.pnas.org/content/118/12/e2021528118</u> [SEPP Comment: The godfather of UN climate scares.]

**Wildfires may have larger effects on cloud formation and climate change than thought** Chemical aging of fire-emitted particles can lead to more intense storms

## By Staff, NSF, Mar 15, 2021

https://www.nsf.gov/discoveries/disc\_summ.jsp?cntn\_id=302298&WT.mc\_id=USNSF\_1 Link to paper: Atmospheric aging enhances the ice nucleation ability of biomass-burning aerosol By Lydia G. Jahl, et al. Science Advances, Feb 24, 2021 https://advances.sciencemag.org/content/7/9/eabd3440

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

**Gazprom delivers first 'carbon-neutral' LNG to Europe–And Shell Believe Them!** By Paul Homewood, Not a Lot of People Know That, Mar 13, 2021 <u>https://notalotofpeopleknowthat.wordpress.com/2021/03/13/gazprom-delivers-first-carbon-neutral-lng-to-europe-and-shell-believe-them/</u>

## Scientists don't say

By John Robeson, Climate Discussion Nexus, Mar 17, 2021 https://climatediscussionnexus.com/2021/03/17/scientists-dont-say/

"The Biden Administration is not just saving America from Donald Trump. It's saving the whole planet. And one way is that it just raised the social cost of carbon from 8 bucks a tonne to 58 million billion. OK. That's an exaggeration. The real figure is \$51. And \$1500. And \$18,000. Notice anything suspicious? Right. Not that there are three, for CO2, CH4 and NO. That they just made those numbers up."

## Summer Droughts Worst in 2100 Years Claim–Contradicted By Real World Data

By Paul Homewood, Not a Lot of People Know That, Mar 18, 2021 <u>https://notalotofpeopleknowthat.wordpress.com/2021/03/17/summer-droughts-worst-in-2100-years-claim-contradicted-by-real-world-data/</u>

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

## ABC is a billion-dollar Leftist advertising agency that most Australians don't want to pay for [Australian Broadcasting Company]

By Jo Nova, Her Blog, Mar 17, 2021

https://joannenova.com.au/2021/03/abc-is-a-billion-dollar-leftist-advertising-agency-that-mostaustralians-dont-want-to-pay-for/

"In a survey of 500 Australians this week, more than half (52%) didn't want to pay a cent. The situation got worse when they were asked if they would subscribe "like Netflix"? At this point the number of naysayers grew from 52% to 79%."

## Electric Cars Lose Attraction Among Germans...Results Of New Allensbach Survey "Astonishing"

By P Gosselin, No Tricks Zone, Mar 16, 2021

https://notrickszone.com/2021/03/16/electric-cars-lose-attraction-among-germans-results-of-newallensbach-survey-astonishing/

"The survey was conducted in the state of Lower Saxony, where a large number of citizens rely heavily on the automobile as a means of mobility."

## Communicating Better to the Public – Use Propaganda

**BBC's 'A Perfect Planet' contradicts mainstream scientific findings** By Paul Homewood, Not a Lot of People Know That, Mar 15, 2021 <u>https://notalotofpeopleknowthat.wordpress.com/2021/03/15/bbcs-a-perfect-planet-contradicts-mainstream-scientific-findings/</u> "A Perfect Planet was conceived as an explicitly campaigning show. James Cross, creative director at BBC Creative, has said the series and accompanying billboard campaign aim to 'shock people into action' and 'influence popular culture, using shock tactics to do that.""

## **BBC's Californian Megadrought Fairy Tale**

By Paul Homewood, Not a Lot of People Know That, Mar 15, 2021 <u>https://notalotofpeopleknowthat.wordpress.com/2021/03/15/bbcs-californian-megadrought-fairy-tale/</u>

## **Expanding the Orthodoxy**

**SEC to weigh requiring further climate disclosures to investors** By Zack Budryk, The Hill, Mar 15, 2021 <u>https://thehill.com/policy/energy-environment/543266-sec-to-weigh-requiring-further-climate-disclosures-to-investors</u> *[SEPP Comment: Doubtful SEC understands the greenhouse effect and how it influences global temperatures.]* 

The Carbon Commissars are watching you! Companies face compulsory green auditors

Press Release, GWPF, Mar 19, 2021 <u>https://www.thegwpf.com/the-carbon-commissars-are-watching-you/</u> Link to report: A Little Nudge With a Big Stick: Misreporting Energy Use and Emissions Is Now a Crime in the UK. By John Constable, GWPF, 2021 <u>https://www.thegwpf.org/content/uploads/2021/02/Constable-SECR.pdf</u>

## **Questioning Green Elsewhere**

**Texas, California Blackouts Reveal Fatal Flaw in Biden's Energy Plans** By Tom Harris and Jay Lehr, PJ Media, Mar 18, 2021 [H/t ICECAP] https://pjmedia.com/columns/tom-harris-and-dr-jay-lehr/2021/03/18/texas-california-blackoutsreveal-fatal-flaw-in-bidens-energy-plans-2-n1433487

## **Funding Issues**

**Is Biden weaponizing the SEC to advance Democrats' climate agenda?** By Steve Milloy, Washington Times, Mar 13, 2021 <u>https://www.washingtontimes.com/news/2021/mar/13/is-biden-weaponizing-the-sec-to-advance-democrats-/</u>

*The Political Games Continue* **Biden Administration Erasing Climate History** By Tony Heller, His Blog, Mar 18, 2021 <u>https://realclimatescience.com/2021/03/biden-administration-erasing-more-climate-history/</u>

Litigation Issues

States sue to block "social cost" of carbon By David Wojick, CFACT, Mar 14, 2021 https://www.cfact.org/2021/03/14/states-sue-to-block-social-cost-of-carbon/

**State attorneys general challenge Trump-era rollback of energy efficiency standards** By Zack Budryk, The Hill, Mar 16, 2021 https://thehill.com/policy/energy-environment/543490-state-attorneys-general-challenge-trumpera-rollback-of-energy

[SEPP Comment: The AGs of New York and California believe homeowners need dishwashers that take 4 hours to do a load?]

## EPA and other Regulators on the March

**EPA finalizes rule aimed at reducing smog pollution across state lines** By Rachel Frazin, The Hill, Mar 16, 2021 https://thehill.com/policy/energy-environment/543446-epa-finalizes-rule-aimed-at-reducingsmog-pollution-across-state

## Energy Issues – Australia

In a fluke moment SA and Vic have got cheap electricity (but only thanks to Black coal, and a screwed market) By Jo Nova, Her Blog, Mar 19, 2021

https://joannenova.com.au/2021/03/in-a-fluke-sa-and-vic-have-got-cheap-electricity-but-only-thanks-to-black-coal-and-a-screwed-market/

[SEPP Comment: In general, solar and wind are not reducing costs to consumers.]

## Energy Issues -- US

## Five Truths About Grid Reliability and Deregulation

By Devin Hartman & Beth Garza, Real Clear Energy, Mar 15, 2021 https://www.realclearenergy.org/articles/2021/03/15/five\_truths\_about\_grid\_reliability\_and\_dereg ulation\_768172.html [SEPP Comment: Overlooks the lack of a capacity market in Texas, needed for an adequate

reserve.]

## ERCOT's SNAFU: \$16 Billion? \$30 Billion? (perils of central planning)

By Bill Peacock, Master Resource, Mar 17, 2021 https://www.masterresource.org/texas-blackout-2021/ercots-planning-snafu-16-billion/

## Washington's Control of Energy

**21 states sue Biden for revoking Keystone XL permit** By Rachel Frazin, The Hill, Mar 17, 2021 <u>https://thehill.com/policy/energy-environment/543746-21-states-sue-biden-over-revocation-of-keystone-xl-permit</u>

## Career officials to resume processing drilling permits

By Rachel Frazin, The Hill, Mar 16, 2021 https://thehill.com/policy/energy-environment/543424-career-officials-to-resume-reviewingdrilling-permit-applications

*Oil and Natural Gas – the Future or the Past?*  **The Top Three Energy Stories For 2021: Texas, California, And Oil** By Jude Clemente, Forbes, Mar 14, 2021 <u>https://www.forbes.com/sites/judeclemente/2021/03/14/the-top-three-vgjenergy-stories-for-2021-</u> <u>texas-california-and-oil/?sh=aef753317695</u>

Russia & Greens jubilant: Boris Johnson considers ban on UK oil and gas exploration

By Staff, The Sunday Telegraph, Via GWPF, Mar 14, 2021 https://www.thegwpf.com/russia-greens-jubilant-boris-johnson-considers-ban-on-uk-oil-and-gasexploration/

## **Return of King Coal?**

## Colombia Will Back Its Coal Industry For Decades To Come By Tsvetana Paraskova, Oil Price.com, Mar 13, 2021 https://oilprice.com/Latest-Energy-News/World-News/Colombia-Will-Back-Its-Coal-Industry-For-Decades-To-Come.html

## Nuclear Energy and Fears

#### **On Anti-Nuclear Bullshit**

By Ted Nordhaus, The Breakthrough Institute, Feb 10, 2021 <u>https://thebreakthrough.org/issues/energy/on-anti-nuclear-bullshit</u> Link to criticized paper: Differences in carbon emissions reduction between countries pursuing renewable electricity versus nuclear power By Benjamin K. Sovacool, et al. Nature Energy, Oct 5, 2021 <u>https://www.nature.com/articles/s41560-020-00696-3</u>

## Dominic Lawson: The worst fallout from Fukushima was hysteria

By Dominic Lawson, The Sunday Times, Via GWPF, Mar 14, 2021 https://www.thegwpf.com/dominic-lawson-the-worst-fallout-from-fukushima-was-hysteria/

## Nuclear technology's role in the world's energy supply is shrinking

Anniversaries of the Fukushima and Chernobyl disasters highlight the challenges of relying on nuclear power to cut net carbon emissions to zero. Editorial, Nature, Mar 9, 2021 https://www.nature.com/articles/d41586-021-00615-w

## Alternative, Green ("Clean") Solar and Wind

## **Report Touts Huge Potential of Offshore Wind**

By Darrell Proctor, Power Mag, Mar 18, 2021

https://www.powermag.com/report-touts-huge-potential-of-offshore-wind/

Link to report: Offshore Wind for America: The promise and potential of clean energy off our coasts

By Bryn Huxley-Reicher, Frontier Group and Hannah Read, Environment America Research & Policy Center, Environment America and Frontier Group, March 2021 <u>https://www.powermag.com/wp-content/uploads/2021/03/national-offshore-wind-print.pdf</u> *[SEPP Comment: One-sided accounting. No discussion of critical storage.]* 

## The truth about wind energy: costs are rising, not falling

By Staff, GWPF & Financial Times, Mar 17, 2021 https://www.thegwpf.com/the-truth-about-wind-energy-costs-are-rising-not-falling/

## Solar Industry Adds Record Capacity in 2020 in Spite of Pandemic

By Aaron Larson, Power Mag, Mar 26, 2021 https://www.powermag.com/solar-industry-adds-record-capacity-in-2020-in-spite-of-pandemic/ Link to report: Solar Market Insight Report 2020 Year in Review By Staff, SEIA/Wood Mackenzie, Mar 16, 2021 Solar Market Insight Report 2020 Year in Review

https://www.seia.org/research-resources/solar-market-insight-report-2020-year-review [SEPP Comment: How much with reliable reserve capacity?]

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

## Hydrogen Supply Evidence Base-BEIS

By Paul Homewood, Not a Lot of People Know That, Mar 19, 2021

https://notalotofpeopleknowthat.wordpress.com/2021/03/19/hydrogen-supply-evidence-base-beis/ "Put simply, hydrogen made via electrolysis costs about three times as much as steam reforming, which itself is triple the cost of gas.

"None of this should in any way be surprising. We know that electricity costs much more than gas. We also now know that you throw away nearly half of the electricity used in electrolysis, and also have to spend money building and running electrolysis plants.

"Yet some people still think hydrogen is a good idea!!"

## America's 'Huge' Hydrogen Opportunity

By Jillian Evanko, Real Clear Energy, Mar 17, 2021 https://www.realclearenergy.org/articles/2021/03/17/americas\_huge\_hydrogen\_opportunity\_7686 71.html

"Jillian Evanko is president and chief executive officer of Chart Industries, Inc., a member of the Hydrogen Forward coalition."

## DOE Backs Projects to Produce Hydrogen from Coal, Biomass

The U.S. Department of Energy (DOE) announced the agency has awarded \$2 million to four research and development (R&D) projects aimed at advancing clean-hydrogen production technologies.

By Darrell Proctor, Power Mag, Mar 17, 2021 https://www.powermag.com/doe-backs-projects-to-produce-hydrogen-from-coal-biomass/

## Alternative, Green ("Clean") Energy -- Storage

## 'Best Is Yet to Come' for Energy Storage Technology

Advancements in batteries, along with an improved regulatory environment and more investment, could make this decade the Roaring '20s for energy storage.

By Darrell Proctor, Power Mag, Mar 1, 2021

https://www.powermag.com/best-is-yet-to-come-for-energy-storage-technology/

"For energy storage, the best is definitely yet to come,' said Ryan Brown, co-founder and CEO of Salient Energy, a Canada-based zinc-ion battery manufacturer. Brown told POWER, 'We know that the industry is still in its infancy in almost all respects. While adoption is already meaningful and rapidly accelerating, a clean energy world will require trillions of dollars' worth of additional capacity to be installed." [Boldface added!]

[SEPP Comment: It's not low cost?]

## Alternative, Green ("Clean") Vehicles

## **Critical Mineral Supply Chains: America's Pathway to a Circular Economy and Responsible Mining**

By David Foster & Mark Ritchie, Real Clear Energy, March 14, 2021 https://www.realclearenergy.org/articles/2021/03/14/critical\_mineral\_supply\_chains\_americas\_pa thway\_to\_a\_circular\_economy\_and\_responsible\_mining\_767862.html

#### Commercial truck electrification is within reach

Press Release by Kiran Julin, Lawrence Berkeley National Laboratory, Mar 16, 2021 <u>https://newscenter.lbl.gov/2021/03/16/commercial-truck-electrification-is-within-reach/</u>

"There are currently two main pathways to electrify trucks—fuel cells and batteries—and both are actively being pursued by researchers at Berkeley Lab. Long-haul trucks powered by hydrogen fuel cells are on the horizon, and Berkeley Lab scientists are playing a leading role in a new DOE consortium called the Million Mile Fuel Cell Truck (M2FCT) to advance this technology. Battery-powered electric trucks have seen the most dramatic improvements in technology in recent years, making the battery costs more affordable and competitive.

## **California Dreaming**

#### California Releases Report Charting Path to 100 Percent Clean Electricity

Press Release, California Energy Commission, Mar 15, 2021

https://www.energy.ca.gov/news/2021-03/california-releases-report-charting-path-100-percentclean-electricity

Link to summary of report: Achieving 100% Clean Electricity in California: An Initial Assessment.

By Staff, California Energy Commission, California Public Utilities Commission, and California Air Resources Board, Mar 15, 2021

file:///C:/Users/Owner/Downloads/TN237168\_20210315T110104\_2021%20SB%20100%20Joint %20Agency%20Report%20Summary%20Achieving%20100%25%20Clean%20Electricity%20in .pdf

#### **Oh** Mann!

## National Review Prevails against Michael Mann

By NR Stall, National Review, Mar 19, 2021

https://www.nationalreview.com/news/national-review-prevails-against-michael-mann/

"'It's completely ridiculous that it took us more than eight years to get relief from the courts from this utterly meritless suit,' said NR editor in chief Rich Lowry. 'And outrageous that Mann is still going to be allowed to harass Steyn and CEI.'"

[SEPP Comment: It would be interesting to read who is funding Mr. Mann!]

## Oh Mann

By John Robeson, Climate Discussion Nexus, Mar 17, 2021 https://climatediscussionnexus.com/2021/03/17/oh-mann/ [SEPP Comment: More on Mr. Mann's AMO.]

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

Facebook, Fact-checkers & Medical Debate When group think masquerades as 'fact-checking.' By Donna Laframboise, Big Picture News, Mar 15, 2021 https://nofrakkingconsensus.com/2021/03/15/facebook-fact-checkers-medical-debate/

## The World Health Organisation's appeasement of China has made another pandemic more likely

By Matt Ridley, The Rational Optimist, Mar 15. 2021 https://www.rationaloptimist.com/blog/who-china-appeasement/ [SEPP Comment: More examples of the UN lacking integrity.]

## Green Europe in terminal decline as 'demographic winter' grows icier

By Staff, The Times, Via GWPF, Mar 15, 2021

https://www.thegwpf.com/birth-strike-green-europe-in-terminal-decline-as-demographic-winter-grows-icier/

## **BELOW THE BOTTOM LINE**

## Good vibrations: bladeless turbines could bring wind power to your home

'Skybrators' generate clean energy without environmental impact of large windfarms, say green pioneers By Jullian Ambrose, The Guardian Mar 16, 2021 <u>https://www.theguardian.com/environment/2021/mar/16/good-vibrations-bladeless-turbinescould-bring-wind-power-to-your-home</u>

[SEPP Comment: Will it make the whole house shake, rattle, and roll?]

## Solar panels cooked my planet

By John Robeson, Climate Discussion Nexus, Mar 17, 2021 https://climatediscussionnexus.com/2021/03/17/solar-panels-cooked-my-planet/

## False Alarm: IPCC Models Say A Warming Antarctica REDUCES Sea Levels -0.8 Of A Meter By 3000

By Kenneth Richard, No Tricks Zone, Mar 15, 2021 https://notrickszone.com/2021/03/15/false-alarm-ipcc-models-say-a-warming-antarctica-reducessea-levels-0-8-of-a-meter-by-3000/

## Finally, Something Appropriate to Do with the Climate Section of the NY Times!

By Kip Hansen, WUWT, Mar 18, 2021 https://wattsupwiththat.com/2021/03/17/finally-something-appropriate-to-do-with-the-climate-section-of-the-ny-times/

## John Kerry Busted Flying Without a Mask

By Eric Worrall, WUWT, Mar 17, 2021 https://wattsupwiththat.com/2021/03/17/john-kerry-busted-flying-without-a-mask/ Passenger who snapped photo tells Fox News: 'Being an elite hypocrite is hard work!'

## Putting uncertainty on ice

By John Robeson, Climate Discussion Nexus, Mar 17, 2021 https://climatediscussionnexus.com/2021/03/17/putting-uncertainty-on-ice/

## ARTICLES

## **Biden's 'BackDoor' Climate Plan**

Emails reveal the strategy behind the new regulation to come. Editorial, WSJ, Mar 17, 2021 https://www.wsj.com/articles/bidens-backdoor-climate-plan-11616020338?mod=hp\_opin\_pos\_1

TWTW Summary: The editorial states:

"President Biden wants Congress to pass climate legislation, but that faces political obstacles. No worries—state Democratic Attorneys General are conspiring with green groups on a regulatory Plan B.

"Climate activists have long sought to force CO2 emissions reductions under the Clean Air Act, but this has been tricky. The Supreme Court in Massachusetts v. EPA (2007) ruled that the law's general definition of 'pollutant' covered greenhouse gases. But the Court didn't tell the EPA how it should regulate CO2 under the law.

"Massachusetts v. EPA set the ground for the Obama EPA's 'endangerment finding' in 2009 declaring that greenhouse gases are a threat to public health and welfare. Green groups then petitioned the Obama EPA to list CO2 as a 'criteria pollutant' and set National Air Ambient Quality Standards (NAAQS).

"The EPA dictates air quality standards for six 'criteria pollutants' known to directly harm human health: nitrogen dioxide, sulfur dioxide, lead, carbon monoxide, ozone and particulate matter. States must craft plans to meet the EPA standards if they are out of compliance.

"But unlike the six criteria pollutants, CO2 doesn't cause asthma or other diseases, and CO2 emissions generated locally can't be reliably measured. CO2 can also persist in the atmosphere for centuries, but the Clean Air Act requires the EPA to set deadlines for states to meet their primary NAAQS for criteria pollutants within 10 years.

"In other words, it's technically infeasible and legally questionable to regulate CO2 as a criteria pollutant. Obama EPA Administrator Lisa Jackson described the idea as not 'advisable' and shelved it. The Obama EPA instead tried to force states to reduce CO2 power plant emissions via its Clean Power Plan, which was blocked by the Supreme Court."

The editorial states that US CO2 emissions have fallen thanks to natural gas replacing coal and renewables. It continues:

"Enter Joe Goffman, a former Obama EPA official who is now responsible for NAAQS as principal deputy assistant administrator of the Office of Air and Radiation. Mr. Goffman was a chief architect of the Clean Power Plan, and a 2014 article from E&E News described him as the 'U.S. EPA's law whisperer. His specialty is teaching an old law to do new tricks.'

"Tricks indeed. Emails obtained by Chris Horner at Energy Policy Advocates, which were shared with us, show Democratic AGs in 2019 consulted Mr. Goffman, then at Harvard Law School, on using the NAAQS to regulate CO2. Mr. Goffman connected the AGs to former EPA officials and environmental attorneys. As his new EPA profile slyly explains, Mr. Goffman at Harvard 'led a team of attorneys and communications specialists providing information and analysis to stakeholders, government decision makers and the media.'

"Consultants referred by Mr. Goffman told the AGs that regulating CO2 as a criteria pollutant wouldn't fly. But they proposed using ozone NAAQS as what one called a 'backdoor.' Fossil fuel combustion, motor vehicle exhaust and industrial emissions contribute to ozone. So the EPA could make states reduce CO2 emissions by tightening ozone standards. States might have to outlaw natural gas-powered appliances, gas stations and internal combustion engines to meet stricter ozone standards.

"Any climate legislation Congress enacts will no doubt contain a potpourri of green energy subsidies, but Democrats won't be able to use budget reconciliation to banish fossil fuels. As former EPA official John Bachmann wrote in an email to New York's Office of Attorney General, 'New legislation requiring specific actions would be much better than NAAQS, and yet I'm mindful of the obvious problem of how to get such legislation even with a new administration.' Other climate consultants agreed.

"Mr. Goffman was included in some email and phone discussions and is now in position to execute their plan at the Biden EPA. Sixteen Democratic AGs on Jan. 19—a day before Mr. Biden's inauguration—challenged the EPA's current ozone NAAQS. Their one paragraph lawsuit says the standards are 'unlawful, arbitrary and capricious and therefore must be vacated.'

"Their aim is to hasten a replacement ozone rule that regulates CO2. The Obama EPA often entered into legal settlements with third-parties to bypass procedural requirements of the Administrative Procedure Act and impose extralegal regulations. Acting EPA Administrator Jane Nishida showed the Biden team's cards on March 4 by notifying the Center for Biological Diversity and 350.org that the agency plans to reconsider 'the important issues' in its 2009 petition to regulate CO2 under NAAQS.

"To sum up, Democratic AGs, green groups and a top Biden environmental regulator are colluding on a plan to impose the Green New Deal on states through a back regulatory door because they know they can't pass it through the front in Congress."