

The Week That Was: 2019-04-27 (April 27, 2019)

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The Science and Environmental Policy Project

Quote of the Week: “...rather than disciplining Professor Ridd, the better option would have been to provide evidence that would illustrate the errors in what he has said...that would have been the greatest rebuke of all.” – Judge Salvatore Vesta – Ridd v. James Cook University

Number of the Week: 500 US deaths annually – “greater than deaths attributable to heat, floods, lightning and tornadoes combined.”

THIS WEEK:

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

Lost Science: It appears that much of what is called science has been lost or misled by enormous increases in computing power. Frequently, we see studies on wind power or solar power invoking massive lowering of costs, as seen in analogy with Moore’s Law, which predicted doubling of “computing power” every 18 months due to miniaturization of computer circuits. Moore’s Law does not apply to wind turbines or their foundations requiring tons of concrete.

These issues of false analogies are even more critical in climate science with its heavy dependence on computing power. We witness seemingly endless papers evaluating one set of models against other sets of models, with little regard for hard evidence, hard data from the physical world.

When humans landed on the moon and safely returned, great computing power did not exist; the computing power of a cell phone greatly exceeds that used in the Apollo missions. NASA relied on continuous and rigorous testing of concepts and hypotheses against hard data obtained by observations and physical experiments. Parachutes would be of no value in slowing the descent to the hard-but-dusty lunar surface of the airless moon. Retro rockets would be necessary but would surely blow a lot of dust around.

This component of continuous and rigorous testing of concepts and hypotheses against hard data is lost to much of the climate modeling community. Computer “experiments,” what if-runs, are not physical experiments. They may or may have a relationship with the physical world.

The efforts by politicians to control carbon dioxide emissions, based on climate model projections / predictions, require models that well describe the greenhouse effect that is occurring now, and how it may change with increasing carbon dioxide in the atmosphere. Higher resolution computing does not necessarily accomplish this because if the models test poorly against atmospheric data, increasing resolution does not enhance predictive ability.

As John Christy and his colleagues have shown, the only model used by the UN Intergovernmental Panel on Climate Change (IPCC) that tracks well with changing atmospheric temperatures is the INM model by the Marchuk Institute of Numerical Mathematics, part of the

Russian Academy of Sciences, in Moscow. All the American Models are diverging significantly from atmosphere temperature trends, and the trends indicate the divergence is increasing.

Adding to the unrealistic nature of climate modeling is the effort by IPCC leaders to increase calculated effects of a doubling of atmospheric CO₂, the so-called equilibrium climate sensitivity. Forty years ago, the Charney Report estimated that a doubling of CO₂ will increase global temperatures by 3°C plus or minus 1.5 °C (about 6 °F plus or minus 50%).

The article in *Science Magazine* describing the effort was a bit vague, but it appears that the effort is to raise the center estimate to 5°C. The effort seems to stem from a modeling conference held by IPCC modelers in Barcelona in March. We wonder why, if the “science was settled” years ago, any change of the center estimate is necessary.

TWTW has long criticized the estimate of a 3°C plus or minus 1.5 °C increase in temperatures from a doubling of CO₂ as too high. So, it searched through the links available, including all the slides in the Barcelona conference to uncover any hard evidence to justify such an increase in the greenhouse effect. It found none. It appears that the climate modelers are increasing projections / predictions in response to UN demands for money to be paid into the Green Climate Fund – with an expected annual tribute amount to \$100 Billion by 2020. There are many names for such activities, none complementary. See links under Defending the Orthodoxy.

UAH Atmospheric Data: Roy Spencer discusses another effort by the climate establishment to criticize the forty years of comprehensive atmospheric temperature trends compiled by the Earth System Science Center at the University of Alabama in Huntsville (UAH). The effort appears to be another attempt to force UAH to accept sparse, highly questionable, surface temperature data in its comprehensive set of atmospheric data as other organizations claiming atmospheric data have done. There is no reason to mix oranges with apples. Spencer and John Christy explain why they do not.

At issue was an effort to estimate surface temperatures (surface skin temperatures) using NASA’s Atmospheric InfraRed Sounder (AIRS) starting with the Aqua satellite in early 2002. The problem with estimating skin temperatures from space is clouds: As Spencer states:

*“The skin temperature is still ‘retrieved’ in partly- (and even mostly-) cloudy conditions from other channels higher up in the atmosphere, and with ‘cloud clearing’ algorithms, but these exotic numerical exercises can never get around the fact that **the surface skin temperature can only be observed with satellite infrared measurements when no clouds are present.** [Boldface was italics in the original.]*

What was even more interesting to TWTW was the comment by Spencer:

“AIRS has even demonstrated how increasing CO₂ in the last 15+ years has reduced the infrared cooling to outer space at the wavelengths impacted by CO₂ emission and absorption, the first observational evidence I am aware of that increasing CO₂ can alter — however minimally — the global energy budget.”

Spencer gave no link to the paper and as TWTW was seeking it a reader of TWTW on WUWT referenced such a paper by members of the Observation Division of the Royal Meteorological

Institute of Belgium. The authors assert that the modest increase in Outgoing Longwave Radiation (OLR) correlates well with increasing temperatures. They state:

“In this paper, decadal changes of the Outgoing Longwave Radiation (OLR) as measured by the Clouds and Earth’s Radiant Energy System from 2000 to 2018, the Earth Radiation Budget Experiment from 1985 to 1998, and the High-resolution Infrared Radiation Sounder from 1985 to 2018 are analysed.”

Figure 4 of the paper shows:

“The OLR has been rising since 1985, and correlates well with the rising global temperature. [Boldface added]

Here is a key point lost in the discussion. OLR (or infrared radiation) is how the earth loses excess energy into space. An increasing greenhouse effect will slow this energy loss. If that energy loss is increasing, then the earth’s surface is warming for reasons other than increasing greenhouse effect. The correlation between surface temperatures and outgoing radiation is not the issue.

Though not addressed in this paper, the AIRS system is 15 years old, and according Spencer it shows a very modest increase in the greenhouse effect. If the trend is valid, it is not a “smoking gun,” but more a smoking cap pistol.

See links under Challenging the Orthodoxy and Measurement Issues – Energy Flow

The Greenhouse Effect: To be clear, and rather pedantic, about what the greenhouse effect means for CO₂ molecules, or other gas molecules, in the atmosphere is that they go into a vibrational mode. One can think of a bird. The two oxygen atoms are like wings spread from the body, the carbon atom, and the wings vibrate. Or, the flight of a bumble bee without direction. Consider a cubic meter of the atmosphere. Because of IR emanating from the surface, some of the CO₂ molecules—which are 0.04% of the volume of that cubic meter—get “kicked” into the vibrational mode by absorbing IR in the 14-16-micrometer range. This phenomenon does not, in and of itself, raise the temperature of that cubic meter of atmosphere.

In principle, three things can happen:

- 1) The CO₂ molecules immediately re-radiate the IR, thereby eliminating the energy from that part of the atmosphere. There is no change in the temperature.
- 2) The CO₂ molecules retain the absorbed energy forever. In this (impossible) case, the temperature of the atmosphere would not rise, and eventually, the molecules would all be in the excited state and could absorb no IR.
- 3) Collisions of other molecules (N₂, O₂, and H₂O) with the excited CO₂ molecules can transfer the vibrational energy into thermal energy (speeding the other molecules up a bit), resulting in an increase of temperature of the atmosphere.

Options 1 and 3 both occur, but option 3 is the more likely. In fact, collisions can excite CO₂ molecules into the vibrational mode or remove them from that excited mode. At thermodynamic equilibrium, about 3% (depending upon temperature) of CO₂ molecules are in the excited state. If some CO₂ molecules radiate energy away, the local temperature drops slightly as colliding

molecules re-populate the excited states. Because IR easily escapes to outer space from high altitude, this mechanism radiates heat away from the stratosphere.

SEPP'S APRIL FOOLS AWARD THE JACKSON

SEPP is conducting its annual vote for the recipient of the coveted trophy, The Jackson, a lump of coal. Readers are asked to nominate and vote for who they think is most deserving, following these criteria:

- The nominee has advanced, or proposes to advance, significant expansion of governmental power, regulation, or control over the public or significant sections of the general economy.
- The nominee does so by declaring such measures are necessary to protect public health, welfare, or the environment.
- The nominee declares that physical science supports such measures.
- The physical science supporting the measures is flimsy at best, and possibly non-existent.

The seven past recipients, Lisa Jackson, Barrack Obama, John Kerry, Ernest Moniz, John Holdren, Gena McCarthy and Jerry Brown are not eligible. Generally, the committee that makes the selection prefers a candidate with a national or international presence. The voting will close on June 30. Please send your nominee and a brief reason why the person is qualified for the honor to Ken@SEPP.org. Thank you.

NO TWTW NEXT WEEK

Due to travel comments there will be no TWTW next week. TWTW will resume on May 11.

Number of the Week: Over a ten-year period, traffic accidents attributed to fog killed and average of 500 people in the US per year, “greater than deaths attributable to heat, floods, lightning and tornadoes combined.” And extreme weather events get all the press. See link under

NEWS YOU CAN USE:

Censorship

The Splendid Peter Ridd Court Judgment

By Donna Laframboise, Big Picture News, Apr 22, 2019

<https://nofrackingconsensus.com/2019/04/22/the-splendid-peter-ridd-court-judgment/>

Peter Ridd vs The Dishonourables

A powerful bureaucracy bullies, berates, isolates, and intimidates a lone critic.

By Donna Laframboise, Big Picture News, Apr 24, 2019

<https://nofrackingconsensus.com/2019/04/24/peter-ridd-vs-the-dishonourables/>

“Incredibly, the University has not understood the whole concept of intellectual freedom. In the search for truth, it is an unfortunate consequence that some people may feel denigrated, offended, hurt or upset.” – Judge Salvatore Vesta

Fired for Telling the Truth About Climate Alarmism (Guest: Peter Ridd)

Podcast by Anthony Watts, The Heartland Institute, Apr 22, 2019

[https://www.heartland.org/multimedia/podcasts/fired-for-telling-the-truth-about-climate-
alarmism-guest-peter-ridd](https://www.heartland.org/multimedia/podcasts/fired-for-telling-the-truth-about-climate-alarmism-guest-peter-ridd)

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: <http://www.nipccreport.org/reports/ccr2a/pdf/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

Challenging the Orthodoxy

UAH, RSS, NOAA, UW: Which Satellite Dataset Should We Believe?

By Roy Spencer, His Blog, Apr 23, 2019

<http://www.drroyspencer.com/2019/04/uah-rss-noaa-uw-which-satellite-dataset-should-we-believe/>

Link to paper on skin temperature, not IR radiation to space: Recent global warming as confirmed by AIRS

By Susskind, Schmidt, Lee, Iredell, Environmental Research Letters, Apr 17, 2019

<https://iopscience.iop.org/article/10.1088/1748-9326/aafd4e/meta>

Will Happer – Climate “Denier”?

By Richard A. Epstein, Defining Ideas, Hoover Institution, Feb 25, 2019

<https://www.hoover.org/research/will-happer-climate-denier>

“Sadly, with the current state of intolerance in climate science, the U.S. needs Will Happer now more than ever.”

The Relationship between Atmospheric Carbon Dioxide Concentration and Global Temperature for the Last 425 Million Years

By W. Jackson Davis, Climate, Sep 29, 2017

https://www.researchgate.net/publication/320123470_The_Relationship_between_Atmospheric_Carbon_Dioxide_Concentration_and_Global_Temperature_for_the_Last_425_Million_Years

Defending the Orthodoxy

New climate models predict a warming surge

By Paul Voosen, Science, Apr 16, 2019

<https://www.sciencemag.org/news/2019/04/new-climate-models-predict-warming-surge>

[SEPP Comment: Since our (false) predictions have not scared you yet, wait to see what we predict now!]

The New UN Climate Report in One Sentence

By Adam Voiland, NASA Earth Observatory, Earth Matters, Oct. 19, 2018

<https://earthobservatory.nasa.gov/blogs/earthmatters/2018/10/19/the-new-un-climate-report-in-one-sentence/>

Status of the Coupled Model Intercomparison Project Phase 6 (CMIP6) and Goals of the Workshop

By Veronika Eyring, et al. CMIP, Mar 25, 2019

https://cmip6workshop19.sciencesconf.org/data/CMIP6_CMIP6AnalysisWorkshop_Barcelona_190325_FINAL.pdf

Daily on Energy: A plan to reorient the UN toward climate change

By John Siciliano & Josh Siegel, Washington Examiner, Apr 23, 2019

<https://www.washingtonexaminer.com/policy/energy/daily-on-energy-a-plan-to-reorient-the-un-toward-climate-change>

“Climate change and sustainability groups want to shake up the U.N. by reorienting its climate change focus toward “security,” beginning with changes within the U.N. Security Council, where the U.S. is a permanent member.”

Former climate 'denier' regrets 'how wrongheaded but certain I was' Here's what led him to change his mind.

By Karin Kirk, Yale Climate Connections, Apr 15, 2019

<https://www.yaleclimateconnections.org/2019/04/former-climate-change-denier-explains-his-shift/>

[SEPP Comment: A history professor decides he was wrong about climate when he was 19? That is worthy of an article in a publication claiming the Yale name?]

Pressure From Above, Pressure From Below Compels Companies And Investors To Tackle Climate Change

By Mike Scott, Forbes, Apr 19, 2019

<https://www.forbes.com/sites/mikescott/2019/04/19/pressure-from-above-pressure-from-below-compels-companies-and-investors-to-tackle-climate-change/#791b9b096f33>

Warming prevents air quality improvement — report

By Sean Reilly, E&E News, Apr 24, 2019

<https://www.eenews.net/greenwire/2019/04/24/stories/1060212015>

State of the Air, 20th Anniversary, 2019

By Staff Writers, ALA, 2019

https://www.eenews.net/assets/2019/04/24/document_gw_09.pdf

“The ‘State of the Air’ 2019 report shows, again, that climate change makes it harder to protect human health. This year’s report shows the spike in high ozone days and in unhealthy particle pollution episodes driven by wildfires. While most of the nation has much cleaner air quality than even a decade ago, too many cities suffered increased ozone from the increased temperature and continued high particle pollution from wildfires driven by changing rain patterns.”

Questioning the Orthodoxy

An End and a New Direction.

By Tim Ball, Digital Management, Apr 23, 2019

<https://drtimball.ca/2019/an-end-and-a-new-direction/>

“I agree with the author who claims the misuse of climate was originally a left-wing agenda for control. However, I think the idea is so attractive because it is under the cloak of ‘saving the planet’ that it fits the platform of all politicians. They all want control. The only difference is in the degree and method. Of course, the ultimate irony is that the massive cost of this anti-CO2 system is only possible because of the one thing it demonizes, fossil fuels.”

Dear, oh! Dear. The Science is Clear.

By Geoff, Australian Climate Sceptics Blog, Apr 23, 2019

<http://theclimatescepticsparty.blogspot.com/2019/04/dear-oh-dear-science-is-clear.html>

April 22: Julian Simon Day at Cato (with a special thanks to scholars Marian Tupy and Pierre Desrochers)

By Robert Bradley Jr. Master Resource, Apr 22, 2019

<https://www.masterresource.org/simon-julian/april-22-julian-simon-day-or-resourceful-earth-day/>

After Paris!

Bloomberg donates \$5.5 million to fill in Paris agreement gap

By Miranda Green, The Hill, Apr 22, 2019

<https://thehill.com/policy/energy-environment/440013-bloomberg-donates-55-million-to-fill-in-paris-agreement-gap>

[SEPP Comment: What about the \$2 Billion Obama failed to deliver after promising \$3 Billion to the Green Climate Fund?]

Change in US Administrations

Memorandum for the Heads of Executive Departments and Agencies

Improving Implementation of the Information Quality Act

By Russell Vought, OMB, April 24, 2019

<https://www.whitehouse.gov/wp-content/uploads/2019/04/M-19-15.pdf>

EPA head asked to back up claim that climate change is '50 to 75 years out'

By Rebecca Beitsch, The Hill, Apr 23, 2019

<https://thehill.com/policy/energy-environment/440228-epa-head-asked-to-back-up-claim-that-climate-change-is-50-to-75>

Social Benefits of Carbon

Thanks, CO₂: the resilience of plants to drought is amazing

By Luboš Motl, The Reference Frame, Apr 23, 2019

<https://motls.blogspot.com/2019/04/thanks-co2-resilience-of-plants-to.html>

New Study: The Recent CO₂ Increase Has Had An Even Greater Earth-Greening Impact Than Previously Thought

By Kenneth Richard, No Tricks Zone, Apr 22, 2019

<https://notrickszone.com/2019/04/22/new-study-the-recent-co2-increase-has-had-an-even-greater-earth-greening-impact-than-previously-thought/>

[SEPP Comment: And the Supreme Court found that CO₂ is an air pollutant that can be regulated by the EPA under the Clean Air Act. The damage this polluted air is doing!]

Review of Recent Scientific Articles by CO₂ Science

The Competitiveness of Oilseed Rape vs Wild Mustard in a Future Climate

Kaciene, G., Miskelyte, D., AbdElgawad, H., Beemster, G., Asard, H., Diksaityte, A., Zaltauskaite, J., Sujetoviene, G., Januskaitiene, I. and Juknys, R. 2019. O₃ pollution in a future climate increases the competition between summer rape and wild mustard. *Plant Physiology and Biochemistry* 135: 194-205. Apr 26, 2019

<http://www.co2science.org/articles/V22/apr/a16.php>

The Influence of Elevated CO₂ and Soil Nitrogen Status on Wheat

Manderscheid, R., Dier, M., Erbs, M., Sickora, J. and Weigel, H.-J. 2018. Nitrogen supply - A determinant in water use efficiency of winter wheat grown under free air CO₂ enrichment. *Agricultural Water Management* 210: 70-77. Apr 25, 2019

<http://www.co2science.org/articles/V22/apr/a15.php>

A Doubling of Tuber Dry Matter for a Doubling of Atmospheric CO₂

Lahijani, M.J.A., Kafi, M., Nezami, A., Nabati, J., Mehrjerdi, M.Z., Shahkoomahally, S. and Erwin, J. 2018. Variations in assimilation rate, photoassimilate translocation, and cellular fine structure of potato cultivars (*Solanum Tuberosum L.*) exposed to elevated CO₂. *Plant Physiology and Biochemistry* 130: 303-313 Apr 24, 2019

<http://www.co2science.org/articles/V22/apr/a14.php>

The Growth Response of Two Tropical Tree Species to Elevated CO₂

Singh, A.K., Rai, A., Kushwaha, M., Chauhan, P.S., Pandey, V. and Singh, N. 2019. Tree growth rate regulate the influence of elevated CO₂ on soil biochemical responses under tropical condition. *Journal of Environmental Management* 231: 1211-1221. Apr 22, 2019

<http://www.co2science.org/articles/V22/apr/a13.php>

Model Issues

A powerful new model could make global warming estimates less vague

One of the biggest sources of climate uncertainty is how clouds will behave. Caltech physicist Tapio Schneider is trying to give us some answers.

By Mallory Pickett, MIT Technology Review, Apr 24, 2019

https://www.technologyreview.com/s/613346/a-powerful-new-model-could-make-global-warming-estimates-less-vague/?utm_campaign=weekend_reads.unpaid.engagement&utm_source=hs_email&utm_medium=email&utm_content=72138531&hsenc=p2ANqtz-8hszyAp1Ky9HSGfxZ_JN5R_IYn1id759CnT6aymHPOp5mzMfPf-q7SrZDioraN0rf4YbEfz5vkJl-WKWf4BNvI13O0fA&hsmi=72138532

[SEPP Comment; Arriving at the wrong answers with greater speed and precision!]

Model Madness: Antarctica's Effect on Sea Level Rise in Coming Centuries

By Anthony Watts, WUWT, Apr 27, 2019

<https://wattsupwiththat.com/2019/04/27/model-madness-antarcticas-effect-on-sea-level-rise-in-coming-centuries/>

Measurement Issues -- Atmosphere

Aqua Project Science, AIRS

NASA-JPL, Apr 8, 2019

<https://aqua.nasa.gov/content/airs>

Adjusting Good Data To Make It Match Bad Data

By Tony Heller, His Blog, Apr 25, 2019

<https://realclimatescience.com/2019/04/adjusting-good-data-to-make-it-match-bad-data/>

“Government climate agencies appear to be using Orwell’s 1984 as Standard Operating Procedure.”

[SEPP Comment: How RSS adjusted its satellite dataset to bring it closer to surface datasets.]

Measurement Issues – Energy Flow

Decadal Changes of Earth’s Outgoing Longwave Radiation

By Steven Dewitte and Nicolas Cerbaux, Observations Division, Royal Meteorological Institute of Belgium, Remote Sensing, Sep 25, 2018

<https://www.mdpi.com/2072-4292/10/10/1539>

Changing Weather

Will flooding stop if Trump revives vetoed Yazoo Pumps?

Ariel Wittenberg, E&E News, Apr 23, 2019

<https://www.eenews.net/greenwire/2019/04/23/stories/1060205609>

[SEPP Comment: Interesting problem north of Vicksburg. It goes to the difficulties of trying to manage the tremendous water flow of the Mississippi River during different flooding seasons. How does a government entity balance immediate human and economic damage with possible environmental damage that may be largely temporary? (Of course, to greens all environmental damage is forever.)]

Alarm-Silencing Spring: Data Show March Mean Temperatures Have Not Been Warming Alarmingly As Claimed

By Kirye, No Tricks Zone, Apr 24, 2019

<https://notrickszone.com/2019/04/24/alarm-silencing-spring-data-show-march-mean-temperatures-have-not-been-warming-alarmingly-as-claimed/>

[SEPP Comment; No trend for an early spring?]

If Precipitation Extremes Are Increasing, Why Aren't Floods?

By Paul Homewood, Not a Lot of People Know That, Apr 23, 2019

<https://notalotofpeopleknowthat.wordpress.com/2019/04/23/if-precipitation-extremes-are-increasing-why-arent-floods/>

No... CO2 not causing killer torrential rain in South Africa

By Steve Milloy, Junk Science, Apr 25, 2019 [H/t ICECAP]

<https://junkscience.com/2019/04/no-co2-not-causing-killer-torrential-rain-in-south-africa/>

[SEPP Comment: NYT no longer employs fact-checkers?]

Tule Fog, Climate Change And Air Pollution

By Chuck Dinerstein, ACSH, Apr 22, 2019

<https://www.acsh.org/news/2019/04/22/tule-fog-climate-change-and-air-pollution-13971>

“Fog related motor vehicle accidents average about 31,000 annually, injuring 11,000 and killing 500 – that mortality is greater than deaths attributable to heat, floods, lightning and tornadoes combined.”

[SEPP Comments: Deaths based on annual averages from 2002 to 2012]

Changing Climate

New Study: A California Lake Had 4-5°C Warmer Periods While CO2 Was 200 ppm...During The Last GLACIAL

By Kenneth Richard, No Tricks Zone, Apr 25, 2019

<https://notrickszone.com/2019/04/25/new-study-a-california-lake-had-4-5c-warmer-periods-while-co2-was-200-ppm-during-the-last-glacial/>

Link to paper: Biomarkers reveal abrupt switches in hydroclimate during the last glacial in southern California

By Sarah Jenkins, et al. Earth and Planetary Science Letters, June 1, 2019

<https://www.sciencedirect.com/science/article/pii/S0012821X19301724#!>

[SEPP Comment: Over the past 200 years, the area has experienced significant swings in precipitation.]

Changing Climate – Cultures & Civilizations

The Akkadian Empire—Felled by Dust?

Chemical measurements of a stalagmite from a cave in Iran reveal a large uptick in dust activity in northern Mesopotamia roughly 4,200 years ago, coincident with the decline of the Akkadian Empire.

By Katherine Kornei, EOS, Jan 31, 2019

<https://eos.org/articles/the-akkadian-empire-felled-by-dust>

[SEPP Comment: Corresponding to the start of the Meghalayan Age, which is on-going. Interestingly, a recent NOVA program about Egypt discussed a drought at that very same time. Prior to that, the Sahara was a savannah. Inscriptions on walls show what looks like the Serengeti of today.]

Changing Seas

Another climate lie bites the dust: 2018 Florida Red Tide caused by ocean circulation, not climate change

By Anthony Watts, WUWT, Apr 24, 2019

<https://wattsupwiththat.com/2019/04/24/another-climate-lie-bites-the-dust-2018-florida-red-tide-caused-by-ocean-circulation-not-climate-change/>

Link to paper: The Coastal Ocean Circulation Influence on the 2018 West Florida Shelf K. brevis Red Tide Bloom

By Robert Weisberg, et al., JGR Oceans, Mar 25, 2019

<https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2018JC014887>

Changing Cryosphere – Land / Sea Ice

Greenland Temperature Data For 2018

By Paul Homewood, Not a Lot of People Know That, Apr 24, 2019

<https://notalotofpeopleknowthat.wordpress.com/2019/04/24/greenland-temperature-data-for-2018/>

Basic Science: 4 Keys to Melt Fears About Ice Sheets Melting

By William Ward, WUWT, Apr 18, 2019

<https://wattsupwiththat.com/2019/04/25/basic-science-4-keys-to-melt-fears-about-ice-sheets-melting/>

Greenland ice sheet melting six times faster than it was in the '80s: study

By Zack Budryk, The Hill, Apr 22, 2019

<https://thehill.com/policy/energy-environment/440107-greenland-ice-sheet-melting-six-times-faster-than-it-was-in-the-80s>

Link to paper: Forty-six years of Greenland Ice Sheet mass balance from 1972 to 2018

By Jérémie Mouginot, et al., PNAS, Mar 20, 2019

<https://www.pnas.org/content/early/2019/04/16/1904242116>

Greenland's Glacier Grows Alarming Climate Hysteries

By Larry Bell, Newsmax, Apr 22, 2019

<https://www.newsmax.com/larrybell/cnn-jakobshavn-petermann/2019/04/22/id/912724/>

The big Arctic Sea-Ice shift of 2007: Ice refuses to melt

By Javier, WUWT, Apr 23, 2019

<https://wattsupwiththat.com/2019/04/23/the-big-arctic-sea-ice-shift-of-2007-ice-refuses-to-melt/>

Lowering Standards

The New UN Climate Report in One Sentence

By Adam Voiland, NASA Earth Observatory, Earth Matters, Oct. 19, 2018

<https://earthobservatory.nasa.gov/blogs/earthmatters/2018/10/19/the-new-un-climate-report-in-one-sentence/>

Climate Change

An Information Statement of the American Meteorological Society

(Adopted by the AMS Council on 15 April 2019) [H/t Joe D'Aleo]

The AMS Information Statement seeks to provide a trustworthy, objective, and scientifically up-to-date explanation of climate change to the public using easily understood language.

[https://www.ametsoc.org/index.cfm/ams/about-ams/ams-statements/statements-of-the-ams-in-](https://www.ametsoc.org/index.cfm/ams/about-ams/ams-statements/statements-of-the-ams-in-force/climate-)

[force/climate-change1/?utm_source=Subscribers&utm_medium=Email&utm_campaign=Newsletter&_zs=nmfcl&_zl=tbj5](https://www.ametsoc.org/index.cfm/ams/about-ams/ams-statements/statements-of-the-ams-in-force/climate-change1/?utm_source=Subscribers&utm_medium=Email&utm_campaign=Newsletter&_zs=nmfcl&_zl=tbj5)

[SEPP Comment: No discussion on the growing disparity between atmospheric temperature trends and model projections / predictions. Amazing to read that the AMS believes that

understanding what is happening in the atmosphere is not important to making predictions about the weather and climate.]

And the Award for Media Hackery Goes to ... The Weather Channel

By Jim Lakely, The Heartland Institute, Apr 18, 2019

<http://blog.heartland.org/2019/04/and-the-award-for-media-hackery-goes-to-the-weather-channel/>

BBC Accused Of Serious Errors And Misleading Statements In David Attenborough's Climate Show

By Paul Homewood, Not a Lot of People Know That, Apr 26, 2019

<https://notalotofpeopleknowthat.wordpress.com/2019/04/26/bbc-accused-of-serious-errors-and-misleading-statements-in-david-attenboroughs-climate-show/>

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

Eco-woke Journalist: “We’re losing the war on climate change”

Guest essay by Eric Worrall, WUWT, Apr 21, 2019

<https://wattsupwiththat.com/2019/04/21/eco-woke-journalist-were-losing-the-war-on-climate-change/>

“For years now, people like environmentalist and journalist Bill McKibben have been screaming from the treetops that we need a World War II-scale mobilization to fight the scourge of climate change.”

[SEPP Comment: Declare war against our existence?]

Communicating Better to the Public – Make things up.

Study: Global Inequality Is Worse Because of Climate Change

Guest essay by Eric Worrall, WUWT, Apr 23, 2019

<https://wattsupwiththat.com/2019/04/23/study-global-inequality-is-worse-because-of-climate-change/>

Link to paper: Global warming has increased global economic inequality

By Noah S. Diffenbaugh and Marshall Burke, Apr 22, 2019

<https://www.pnas.org/content/early/2019/04/16/1816020116>

[SEPP Comment: We live in prosperous times, thus inequality is increasing over times when many people starved to death?]

Even with Inuit lives at stake, polar bear specialists make unsupported claims

By Susan Crockford, Polar Bear Science, Apr 23, 2019

<https://polarbearscience.com/2019/04/23/even-with-inuit-lives-at-stake-polar-bear-specialists-make-unsupported-claims/>

Emperor Penguins “Wiped Out”

By Paul Homewood, Not a Lot of People Know That, Apr 25, 2019

<https://notalotofpeopleknowthat.wordpress.com/2019/04/25/emperor-penguins-wiped-out/>

David Attenborough, Dead Bats and How Radical Green Propaganda Relies on Tragedy Porn

By Andrew Montford, Reaction, Apr 23, 2019

<https://reaction.life/david-attenborough-dead-bats-radical-green-propaganda-relies-tragedy-porn/>

What David Attenborough's climate change show didn't tell you

By Ross Clark, The Spectator, Apr 20, 2019

<https://blogs.spectator.co.uk/2019/04/what-david-attenboroughs-climate-change-show-didnt-tell-you/>

What David Attenborough told BBC viewers about this raging orangutan fighting a digger is only part of the truth... and that's just one of the flaws in the great naturalist's 'alarmist' new documentary, writes DAVID ROSE

By David Rose, Daily Mail on Sunday, Apr 20, 2019 [H/t GWPF]

<https://www.dailymail.co.uk/news/article-6943475/What-Attenborough-told-BBC-viewers-orangutan-fighting-digger-truth.html>

Communicating Better to the Public – Use Propaganda on Children

Extinction Rebellion: How might ministers win over the protesters?–Harrabin

By Paul Homewood, Not a Lot of People Know That, Apr 23, 2019

<https://notalotofpeopleknowthat.wordpress.com/2019/04/23/extinction-rebellion-how-might-ministers-win-over-the-protesters-harrabin/>

Extinction Rebellion Downsizing their Climate Change Demonstrations

Guest essay by Eric Worrall, WUWT, Apr 22, 2019

<https://wattsupwiththat.com/2019/04/22/extinction-rebellion-downsizing-their-climate-change-demonstrations/>

Is Extinction Rebellion a Big Oil conspiracy?

By Dominic Lawson, The Times, Via GWPF, Apr 21, 2019

<https://www.thegwpf.com/dominic-lawson-is-extinction-rebellion-a-big-oil-conspiracy/>

The cult of Greta Thunberg

This young woman sounds increasingly like a millenarian weirdo.

By Brendan O'Neill, Spiked, Apr 22, 2019

<https://www.spiked-online.com/2019/04/22/the-cult-of-greta-thunberg/>

What? No Sixth Extinction

By Andrew Montford, GWPF, Apr 23, 2019

<https://www.thegwpf.com/what-no-sixth-extinction/>

Expanding the Orthodoxy

Bill de Blasio says Green New Deal will ban 'inefficient' steel and glass skyscrapers

By Lucia Suarez Sang, Fox News, Apr 21, 2019

<https://www.foxnews.com/politics/bill-de-blasio-says-green-new-deal-will-ban-inefficient-steel-and-glass-skyscrapers>

[SEPP Comment: Will 100 story buildings be constructed out of concrete, Soviet style, with narrow slits for window, absurd design? Or will they be constructed out of wood becoming towering infernos?]

Mayor de Blasio Sets Out To Accelerate New York City's Decline

By Francis Menton, Manhattan Contrarian, Apr 23, 2019

<https://www.manhattancontrarian.com/blog/2019-4-23-mayor-de-blasio-sets-out-to-accelerate-new-york-citys-decline>

Questioning European Green

China plastic waste ban throws global recycling into chaos

By Sam Reeves, Jenjarom, Malaysia (AFP) April 25, 2019

http://www.spacedaily.com/reports/China_plastic_waste_ban_throws_global_recycling_into_chaos_999.html

[SEPP Comment: Incineration is not an option for the EU?]

Questioning Green Elsewhere

The Underlying Reasons Why the “New Energy Economy” Is Nonsense

By Alan Carlin, Carlin Economics and Science, Apr 21, 2019

<http://www.carlineconomics.com/archives/4956>

“Moore’s Law does not apply to large energy production and distribution systems. Such systems are limited by basic physics.”

STUDY: Green New Deal Would Have 'No Effect' On Climate Change

The impact would be "barely distinguishable from zero."

By Emily Zanotti, Daily Wire, Apr 25, 2019 [H/t Climate Depot]

<https://www.dailywire.com/news/46421/study-green-new-deal-would-have-no-effect-climate-emily-zanotti>

18 spectacularly wrong predictions made around the time of first Earth Day in 1970, expect more this year

By Mark J. Perry, Carpe Diem, AEIdeas, Apr 21, 2019

<https://www.aei.org/publication/18-spectacularly-wrong-predictions-made-around-the-time-of-first-earth-day-in-1970-expect-more-this-year-3/>

Earth Day: Then and now

By Anthony J. Sadar, American Thinker, Apr 22, 2019

https://www.americanthinker.com/blog/2019/04/earth_day_then_and_now_.html

Earth Day 2019: The sixth mass extinction and the imperative of apocalypse

By Benjamin Zycher, WUWT, Apr 22, 2019

<https://wattsupwiththat.com/2019/04/22/earth-day-2019-the-sixth-mass-extinction-and-the-imperative-of-apocalypse/>

On Earth Day, gloomy predictions haven’t come to pass

By Nicolas Loris, Bangor Daily News, Via GWPF, Apr 20, 2019

<https://www.thegwpf.com/on-earth-day-none-of-its-gloomy-predictions-have-come-to-pass/>

Another dodgy Earth Day ploy hyping flawed and failed “species extinction” propaganda

Guest essay by Larry Hamlin, WUWT, Apr 25, 2019

<https://wattsupwiththat.com/2019/04/25/another-dodgy-earth-day-ploy-hyping-flawed-and-failed-species-extinction-propaganda/>

New York is banning hot dogs, processed meat

By Luboš Motl, The Reference Frame, Apr 26, 2019

<https://motls.blogspot.com/2019/04/new-york-is-banning-hot-dogs-processed.html>

“The effect of the New York ban on the temperature of Earth is again in tens of microkelvins.”

Funding Issues

Bloomberg donates \$5.5 million to fill in Paris agreement gap

By Miranda Green, The Hill, Apr 22, 2019

<https://thehill.com/policy/energy-environment/440013-bloomberg-donates-55-million-to-fill-in-paris-agreement-gap>

[SEPP Comment: What about the \$2 Billion Obama failed to deliver after promising \$3 Billion?]

Litigation Issues

Hypocrisy Runs Rampant in California Climate Case

By Craig Richardson, Inside Sources, Apr 10, 2019

<https://www.insidesources.com/hypocrisy-runs-rampant-in-california-climate-case/>

“As U.S. District Court Judge William Alsup summed it up prior to dismissal, ‘You’re asking for billions of dollars for something that hasn’t happened yet and may never happen to the extent you’re predicting it will happen.’”

Only approved climate change views need apply

By Benjamin Zycher, The Hill, Apr 10, 2019

<https://thehill.com/opinion/energy-environment/438093-only-approved-climate-change-views-need-apply>

Missing Climate Litigation Industry Slides Turn Up at UCLA

By Chris Horner, Climate Litigation Watch, Apr 23, 2019

<https://climatelitigationwatch.org/missing-climate-litigation-industry-slides-turn-up-at-ucla/>

Massachusetts and New York AGS Renew Old Tactics in Another Attempt to Avoid Transparency

By Lea Giotto, Energy in Depth, Apr 22, 2019

<https://eidclimate.org/massachusetts-and-new-york-ags-renew-old-tactics-in-another-attempt-to-avoid-transparency/>

Energy Issues – Non-US

From coal to gas: How the shift can help stabilize climate change [Japan]

Press Release via Science Daily, National Institute for Environmental Studies, Japan, Apr 22, 2019 [H/t Toshio Fujita]

<https://www.sciencedaily.com/releases/2019/04/190422112759.htm>

Link to paper: Asserting the climate benefits of the coal-to-gas shift across temporal and spatial scales

By Katsumasa Tanaka, et al., Nature Climate Change, Apr 22, 2019

<https://www.nature.com/articles/s41558-019-0457-1>

Germany’s Drive For Wind In Trouble

By Paul Homewood, Not a Lot of People Know That, Apr 21, 2019

<https://notalotofpeopleknowthat.wordpress.com/2019/04/21/germanys-drive-for-wind-in-trouble/>

Fuel Poverty and Electricity Policy Costs

By John Constable, GWPF, Apr 22, 2019

<https://www.thegwpf.com/fuel-poverty-and-electricity-policy-costs/>

Green Gas Supplied To 1 Million Homes Con

By Paul Homewood, Not a Lot of People Know That, Apr 26, 2019

<https://notalotofpeopleknowthat.wordpress.com/2019/04/26/green-gas-supplied-to-1-million-homes-con/>

“Biogas, therefore, only accounts for 0.3% of overall gas supply.

“When she talks of investing, she actually means subsidising. And £656m is a huge sum of money for such a tiny amount of energy.”

Energy Issues – Australia

Australia’s \$25b renewables bubble set to bust: ABC starts promo to prop it up

By Jo Nova, Her Blog, Apr 27, 2019

<http://joannenova.com.au/2019/04/australias-25b-renewables-bubble-set-to-bust-abc-starts-promo-to-prop-it-up/>

“The article also somberly discussed fantasy figures like costs of \$55 per MW hour. As readers here know, they are not worth analyzing because they are wholly cherry picked delusions based on bids from generators that don’t have to pay for their wildly long transmission lines, their back up, their unreliable product, or the inefficiency burden they dump on the whole system, or the houses they burn down. And in Australia, they get the RET subsidy, and often low cost loans, as well as access to a 1 billion dollar free advertising agency called the ABC too.

“The only numbers that count — the number of states with lots of solar and wind and cheap electricity. That’s Zero.”

Solar Power at \$70 is still twice the price of brown coal

By Jo Nova, Her Blog, Apr 23, 2019

<http://joannenova.com.au/2019/04/solar-power-at-70-is-still-twice-the-price-of-brown-coal/>

Another socialist boom and bust in solar in Victoria

By Jo Nova, Her Blog, Apr 25, 2019

<http://joannenova.com.au/2019/04/another-socialist-boom-and-bust-in-solar-in-victoria/>

Energy Issues -- US

Americans Need More Oil and Natural Gas Pipelines

By Jude Clemente, Real Clear Energy, Apr 24, 2019

https://www.realclearenergy.org/articles/2019/04/24/americans_need_more_oil_and_natural_gas_pipelines.html

Link to graph: Foreign Sources of Crude Oil Imports to California 2018

By Staff Writers, California Energy Commission, Mar 12, 2018

https://www.energy.ca.gov/almanac/petroleum_data/statistics/2018_foreign_crude_sources.html

[SEPP Comment; Gasoline prices are highest in California at \$4.00 per gallon.]

Oil and Natural Gas – the Future or the Past?

Peak Oil, Abiotic Oil & EROEI: Real(ish) Things That Don’t Matter, Part One: Peak Oil

Guest Seinfeld routine by David Middleton, WUWT, Apr 22, 2019

<https://wattsupwiththat.com/2019/04/22/peak-oil-abiotic-oil-eroei-realish-things-that-dont-matter/>

Abiotic Oil: Real(ish) Things That Don’t Matter, Part Deux

Guest Seinfeld routine by David Middleton, WUWT, Apr 23, 2019

<https://wattsupwiththat.com/2019/04/23/abiotic-oil-realishthings-that-dont-matter-part-deux/>

Have It All - The Reliance Crude Gathering System In The Northern Midland Basin

By Housley Carr, RBN Energy, Apr 21, 2019

<https://rbnenergy.com/have-it-all-the-reliance-crude-gathering-system-in-the-northern-midland-basin>

Nuclear Energy and Fears

Bloomberg is Trying to Scare You

By Donn Dears, Power For USA, Apr 26, 2019

<https://ddears.com/2019/04/26/bloomberg-is-trying-to-scare-you/>

Alternative, Green (“Clean”) Solar and Wind

Unreliable Nature Of Solar And Wind Makes Electricity More Expensive, New Study Finds

By Michael Shellenberger, Forbes, Apr 22, 2019

<https://www.forbes.com/sites/michaelshellenberger/2019/04/22/unreliable-nature-of-solar-and-wind-makes-electricity-much-more-expensive-major-new-study-finds/#113817fd4f59>

Invisible costs of renewables: “Staggeringly high” \$125b for US electricity consumers

By Jo Nova, Her Blog, Apr 25, 2019

<http://joannenova.com.au/2019/04/renewables-staggeringly-high-125b-cost-to-us-electricity-consumers/>

Link to Unpublished Working Paper: Do Renewable Portfolio Standards Deliver?

By Michael Greenstone, Richard McDowell, Ishan Nath, U. of Chicago, Apr 21, 2019

<https://bfi.uchicago.edu/working-paper/do-renewable-portfolio-standards-deliver/>

https://bfi.uchicago.edu/wp-content/uploads/BFIEPIC_WP_201962_v3.pdf

“These cost estimates significantly exceed the marginal operational costs of renewables and likely reflect costs that renewables impose on the generation system, including those associated with their intermittency, higher transmission costs, and any stranded asset costs assigned to ratepayers.”

Sunnova’s Rooftop Solar: Selling a Bad Product Requires...

By Robert Bradley Jr. Master Resource, Apr 25, 2019

<https://www.masterresource.org/solar-rooftop/sunnova-selling-a-bad-product-requires/>

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

Another Dirty ‘Green’ Energy: German Professor Warns Wood Burning Significantly Worse Per kW Of Heat Than Fossil Fuels”!

By P Gosselin, No Tricks Zone, Apr 26, 2019

<https://notrickszone.com/2019/04/26/another-dirty-green-energy-german-professor-warns-wood-burning-significantly-worse-per-kw-of-heat-than-fossil-fuels/>

Alternative, Green (“Clean”) Vehicles

Battery-Powered Vehicle 1Q Results

By Donn Dears, Power For USA, Apr 23, 2019

<https://ddears.com/2019/04/23/battery-powered-vehicle-1q-results/>

[SEPP Comment: 1Q is first quarter, not I.Q.!]

German Institute Delivers Bad News On CO₂, E-Cars: “Electric Vehicles Not A Panacea For Climate Change”

By P Gosselin, No Tricks Zone, Apr 23, 2019

<https://notrickszone.com/2019/04/23/german-institute-delivers-bad-news-on-co2-e-cars-electric-vehicles-not-a-panacea-for-climate-change/>

Carbon Schemes

U.K. Seen Missing Out on 80% Plunge in Cost of Carbon Capture

By Jeremy Hodges, Bloomberg, Apr 25, 2019

<https://www.bloomberg.com/news/articles/2019-04-25/u-k-seen-missing-out-on-80-plunge-in-cost-of-carbon-capture>

[SEPP Comment: The reference case is replacing natural gas as it is removed with CO₂, a highly specialized case.]

California Dreaming

California Gas Prices Hit Average of \$4, Highest in the State Since 2014

By Tracy Bloom, KTLA TV, LA, Apr 17, 2019

<https://ktla.com/2019/04/17/california-gas-prices-hit-average-of-4-highest-in-the-state-since-2014/>

“The spike is blamed on the switchover from winter blend gasoline to the traditionally more expensive summer blend, as well as ongoing refinery issues.”

Other Scientific News

Geomagnetic jerks finally reproduced and explained

By Staff Writers, Paris, France (SPX) Apr 23, 2019

http://www.spacedaily.com/reports/Geomagnetic_jerks_finally_reproduced_and_explained_999.html

BELOW THE BOTTOM LINE:

Going, ... going

By Staff Writers, Climate Change Predictions.org, Apr 25, 2019

<http://climatechangepredictions.org/uncategorized/4974>

“Famous global landmarks including the Statue of Liberty, Tower of London and Sydney Opera House will be lost to rising seas caused by climate change, scientists have warned.

“‘It’s relatively safe to say that we will see the first impacts at these sites in the 21st century,’ lead author Prof Ben Marzeoin, of the University of Innsbruck in Austria, told the Guardian. ‘Typically when people talk about climate change it’s about the economic or environmental consequences, how much it’s going to cost. We wanted to look at the cultural implications.’

“The Guardian 5 Mar 2014”

Bleak future

By Staff Writers, Climate Change Predictions.org, Apr 25, 2019

<http://climatechangepredictions.org/uncategorized/4986>

“In 600 pages, Sir Nicholas Stern spells out a bleak future gripped by violent storms, rising sea levels, crippling droughts and economic chaos unless urgent action is taken to tackle global warming. Rising sea levels will threaten countries like Bangladesh but also some of the biggest cities, including London, New York, Tokyo and Shanghai.

“Ocean acidification could destroy fish stocks, crop failure will leave hundreds of millions at risk of starvation and up to 200 million people will be displaced by rising sea levels, floods and drought. It is already too late to avoid many of the problems facing people in the Third World.
“The Telegraph, 31 Oct 2006”

Our only hope – give them more money!

By Staff Writers, Climate Change Predictions.org, Apr 25, 2019

<http://climatechangepredictions.org/uncategorized/5543>

“Climate change could cause global conflicts as large as the two world wars but lasting for centuries unless the problem is controlled, a leading defence think tank has warned.

“The Royal United Services Institute said a tenfold increase in research spending, comparable to the amount spent on the Apollo space programme, will be needed if the world is to avoid the worst effects of changing temperatures.

“The Telegraph (UK) 23 Apr 2008”

ARTICLES:

1. PG&E’s Radical Plan to Prevent Wildfires: Shut Down the Power Grid

When dangerously high winds arise this year, the utility says it will black out fire-prone areas that are home to 5.4 million people

By Russell Gold and Katherine Blunt, WSJ, Apr 27, 2019

https://www.wsj.com/articles/pg-es-radical-plan-to-prevent-wildfires-shut-down-the-power-grid-11556337671?mod=hp_lead_pos5

SUMMARY: The journalists write:

“PG&E Corp. can’t prevent its power lines from sparking the kinds of wildfires that have killed scores of Californians. So instead, it plans to pull the plug on a giant swath of the state’s population.

“No U.S. utility has ever blacked out so many people on purpose. PG&E says it could knock out power to as much as an eighth of the state’s population for as long as five days when dangerously high winds arise. Communities likely to get shut off worry PG&E will put people in danger, especially the sick and elderly, and cause financial losses with slim hope of compensation.

“In October, in a test run of sorts, PG&E for the first time cut power to several small communities over wildfire concerns, including the small Napa Valley town of Calistoga, for about two days. Emergency officials raced door-to-door to check on elderly residents, some of whom relied on electric medical devices. Grocers dumped spoiling inventory. Hotels lost business.

“PG&E is ‘essentially shifting all of the burden, all of the losses onto everyone else,’ said Dylan Feik, who was Calistoga city manager until earlier this month.

“By shutting off power in fire-prone parts of its service area, which are home to 5.4 million people, PG&E said in regulatory filings it hopes to prevent more deadly wildfires. The San

Francisco-based company sought bankruptcy protection in January, citing more than \$30 billion in potential damages from fires linked to its equipment.

“This plan amounts to an admission by PG&E that it can’t always fulfill its basic job of delivering electricity both safely and reliably. Years of drought and a drying climate have turned the state’s northern forests into a tinderbox, and the utility has failed to make needed investments to make its grid sturdier.

“During this year’s wildfire season, which typically starts around June, PG&E is preparing to make cutoffs to a far larger geographic region than it has targeted for blackouts in the past, increasing the number of potentially affected customers nearly 10-fold. While it is unlikely all areas would be affected at once, the outages may turn entire counties dark.

“The company said it is attempting to figure out how to avoid stranding medically vulnerable residents and is working with local authorities to try to ensure water, traffic lights and phone services aren’t shut off. It concedes it may end up cutting power to some of these services until it can build a better system.

“‘We simply don’t have the luxury, given the extreme weather conditions we are seeing, to wait to get it perfect,’ said Aaron Johnson, the PG&E vice president in charge of the program.

“Lights Out

“This summer, PG&E will expand the area where it will consider pre-emptively shutting off power to include Tier 2 areas, or areas with elevated fire risk. Previously, pre-emptive blackouts primarily affected Tier 3 areas, or areas with extreme fire risk.

“PG&E said it generally wouldn’t cover losses due to intentional blackouts—regulations don’t require it to—though it would consider claims case-by-case. It declined to say whether it has ever compensated anyone for such claims.

“The plug-pulling could go on for years. PG&E is rushing to strengthen its system to make its power lines more fire resistant and to trim trees in fire-prone areas. It is installing equipment to pinpoint shut-offs more accurately. In February, it said that work would take five years or longer.

“California has long faced wildfire risk in the summer and fall, when hot, strong winds threaten to dislodge power lines that can ignite dry brush. Drought and climate change have made the risk especially acute in Northern California, where aging power lines cut through forests filled with dead trees.

“Although California is drought-free for the first time since 2011 and has experienced a rainy spring, a hot, dry summer could desiccate new vegetation, creating more fuel for wildfires.

“California regulators and elected officials acknowledge the PG&E shut-offs could have unintended consequences but say the fire threat warrants extreme measures. Wildfires have destroyed thousands of homes and killed dozens of people in Northern California in recent years. State fire investigators determined that PG&E equipment played a role in starting 18 wildfires in 2017 that killed 22 people.

“Last November, the so-called Camp Fire burned down the town of Paradise and killed 85 people. PG&E has said its equipment was probably the cause. The company had repeatedly delayed a safety overhaul of a century-old high-voltage transmission line that is a prime suspect.

“We find ourselves as a state in the situation where this appears to be a necessary program,’ said Elizaveta Malashenko, the California Public Utilities Commission’s safety and enforcement chief. ‘The best we can do is establish parameters around it.’ These rules will include reporting requirements and rules for when a utility could shut off power.

“San Diego Gas & Electric was the first California utility to cut power during dry, windy weather. It first contemplated doing so after a deadly fire in 2007 but didn’t black out any areas until 2013, because of pushback from residents and regulators. It has been adding weather stations to precisely locate problem areas, as well as technology that allows it to shut down smaller parts of its grid.

“To date, the San Diego utility’s largest blackout affected about 20,800 people. ‘If conditions threaten the integrity of our system, we will turn off power to protect public safety,’ said a company spokeswoman. State rules, she said, ‘prevent payment for damages, such as food spoilage.’

“Calistoga cutoff

“PG&E has shut off power to reduce the risk of sparking fires only once before. The experience left residents, business owners and local officials unhappy. Last October, as winds reached 50 miles an hour, it shut off parts of its system that served 60,000 people in parts of seven counties.

“Calistoga, a town of about 5,300 on the edge of wine country, was among those that went dark. City officials said communication with the company broke down when the lights went off, leaving them scrambling to find information and send medical help to vulnerable residents in three mobile-home parks. Some people spent nearly three days without power.

“‘This makes good business sense,’ said Mr. Feik, the former city manager, of the power cut-off, ‘but from a public policy perspective, it’s awful.’

The article concludes with a discussion of how cut-offs have effected businesses and citizen reactions to them

2. A Navy Veteran Went to Prison for Digging Ponds in the Mountains

The Supreme Court can remedy the injustice done by the EPA’s unclear ‘navigable waters’ rule.

By Ethan Blevins, WSJ, Apr 26, 2019

<https://www.wsj.com/articles/a-navy-veteran-went-to-prison-for-digging-ponds-in-the-mountains-11556317175>

SUMMARY: The attorney for the Pacific Legal Foundation writes:

“I am haunted by waters,’ wrote Norman Maclean in ‘A River Runs Through It,’ his 1976 novel about growing up in a family of Montana fly fishermen. Joe Robertson was haunted by waters of a different kind—the kind that can land someone in federal prison without warning. These are ‘navigable waters,’ which carry on their current the full force of federal power to bankrupt and jail people who meddle with them. The problem is that no one knows what they are.

“Robertson, a Navy veteran who died in March at 80, spent 18 months in prison for getting the definition of ‘navigable waters’ wrong. The land he owned in the Montana mountains was more than 40 miles from the nearest genuinely navigable river, but a trickle ran through it: the combined force of two garden hoses meandering down the slope in a channel about a foot deep and a foot wide.

“Before he died, Robertson and his wife, Carrie, dug ponds in the path of their modest mountain trickle. The Environmental Protection Agency declared it a ‘navigable water’ subject to the Clean Water Act and prosecuted him for ‘discharging’ pollutants without a permit. He was found guilty in 2016. In addition to his 18 months in prison, Robertson was ordered to pay a \$130,000 fine.

“With the help of the Pacific Legal Foundation, Robertson petitioned the Supreme Court, claiming that the reach of the Clean Water Act is so vague as to violate constitutional due process. If a law is so poorly written that no one can understand it, then that law doesn’t give fair notice to the people who must follow it and is ripe for abuse by its enforcers.

“The justices granted Robertson’s petition in April, sending it back to the Ninth U.S. Circuit Court of Appeals to determine what should happen next in light of his death. Depending on what the Ninth Circuit does, the Supreme Court may yet address the ‘navigable waters’ puzzle that led to a man jailed and scourged for digging a few ponds in the mountains.

“The Clean Water Act has a simple premise: Don’t discharge pollutants into ‘navigable waters’ without a permit. As a practical matter, disturbing water in even modest ways can constitute an unlawful ‘discharge’ in the federal government’s eyes. Much hangs on the meaning of ‘navigable waters.’ However it is defined, if you have it on your land and want to do anything that might affect it, you may need a permit that costs an average of 788 days and \$271,596 to obtain. And if you interfere with such water without a permit, you—like Joe Robertson—could face criminal prosecution and crippling fines.

“When Congress passed the Clean Water Act in 1972, the phrase ‘navigable water’ meant interstate waters that were actually usable for trade and travel. By 1986, regulators from the EPA and Army Corps of Engineers had stretched the term to include tributaries of interstate waterways and adjacent wetlands. Next, they expanded the language to include isolated pools, with the flimsy excuse that such waters had an interstate character because migratory birds landed there on occasion. Then came temporary streams, drainage ditches and so on.

*“Instead of becoming more concrete over time, the meaning of ‘navigable waters’ has become less clear, thanks to overzealous regulators and congressional inaction. The Supreme Court has tried—and usually failed—to bring clarity. A 2006 decision, *Rapanos v. U.S.*, is the most authoritative interpretation of ‘navigable waters.’ But *Rapanos* is as confusing as the words it purports to interpret. No one is even clear about which of the split opinions in *Rapanos* is binding law.*

“Writing for a four-justice plurality, Justice Antonin Scalia said ‘navigable waters’ must at least be permanent streams in the normal sense of the word, and flow continuously to rivers or lakes that are actually navigable. For the most part, though, courts and enforcers have followed Justice Anthony Kennedy’s solo concurring opinion, which says almost anything with a ‘significant nexus’ to actually navigable waters can be considered ‘navigable.’ In 2015, the EPA and the Army

Corps used Justice Kennedy's vague opinion to expand their power, adopting the most aggressive interpretation to date that would stretch 'navigable waters' even to dry ditches in the desert.

"One way or another, the high court will eventually have to answer the question that nagged Joe Robertson to his death: What is a navigable water? When that time comes, the justices should hold that the meaning of 'navigable waters' is too vague to enforce in a nation committed to due process and the rule of law. No one should face federal prison for a pond because a trickle runs through it."

[SEPP Comment: The Corps of Engineers and the EPA fought each other to broaden the definition of navigable waters. Haapala personally witnessed wet leaves with an intermittent stream nearby declared navigable waters.]
