

# **The Week That Was: 2020-11-14 (November 14, 2020)**

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

**Quote of the Week:** *"The care of human life and happiness, and not their destruction, is the first and only legitimate object of good government."* —Thomas Jefferson (1809)

**Number of the Week: 86 to 238%**

#### **THIS WEEK:**

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

**Out of Date:** For the past two weeks TWTW has described work by W. A. van Wijngaarden and W. Happer (W & H), on the thermal radiation of the five most abundant greenhouse gases. The most abundant greenhouse gas, water vapor, and the second most abundant, carbon dioxide, are extremely saturated. This means that with the possible exception of polar regions, it would take major increases in the concentrations of these gases in the atmosphere to have a significant impact on global temperatures. For carbon dioxide to have a significant impact on temperatures, it would require burning of more fossil fuels than are known to exist.

The findings of W & H are backed by the temperature trend findings of John Christy and Roy Spencer. The atmosphere of the globe is warming very modestly, not significantly. Further, the atmospheric "hot spot" above the tropics suggested by the climate models is not to be found. Thus, increasing greenhouse effect is not to be feared. The global climate models that produce results of significant warming are out of date. Yet, US modelers ignore the physical evidence of what is occurring in the atmosphere, thereby ignoring their obligations to the public. Modelers in other countries may have similar obligations, which are ignored as well. Consequently, all such models are out of date.

Similarly, we have studies of agriculture which show the authors do not understand recent changes in the industry. For example, the 2018 National Climate Assessment stated that the US Midwest would become too hot for corn (maize) and soybeans and that farming will move north into Canada. Yet, over the past decade the biggest US competitor in the international market for corn and soybeans, and still growing, is tropical Brazil. Technically, the assessment was supported by the US Department of Agriculture. Surely, that Department should know the biggest competitors to the US in important agriculture markets!

Last week the Carl R. Woese Institute for Genomic Biology, University of Illinois at Urbana-Champaign, released a news report featuring a study performed under ARPA-E, The Advanced Research Projects Agency – Energy. The report draws into question whether or not the entities involved understand modern agriculture.

The study focused on C4 crops which probably evolved 30 to 35 million years ago when the atmosphere was becoming low in carbon dioxide. In addition to corn, C4 crops include millet, sorghum, and sugarcane and C4 plants include about 50% of grass species. C4 plants have a different form of photosynthesis than C3 plants, which evolved previously. C4 plants use carbon dioxide and water more efficiently than C3 plants (wheat, soybeans, rice, virtually all trees). In

nature, C4 are typically found in warm- to high-temperature areas, particularly where water is scarce.

Apparently, the ARPA-E study and the Institute review did not consider the abundant research showing that increasing CO2 allows plants to better adapt to stress, be it water, temperature, salt, etc. C3 plants become more drought resistant, reducing the natural advantage of C4 plants. More importantly, the study did not consider advances in modern agriculture, where hybrids and cultivars (a plant produced by selective breeding for cultivation) can be selected or produced for particular local conditions. As a result, the fear of warming erasing entire crops over the years is meaningless because crops can be tailored to such changes. However, the fear of cooling, freezing or cold preventing ripening, which is real, still remains.

Further, Craig Idso of CO2 Science provided links to studies demonstrating that increases in CO2 benefit corn production. Apparently, the research under the ARPA-E grant did not consider investigating the benefits of adding CO2.

As with climate studies that fail to recognize recent research of what is occurring in the atmosphere, agriculture studies that fail to recognize the modern agricultural industry are out of date. See links under Defending the Orthodoxy, Review of Recent Scientific Articles by CO2 Science (tomato seedlings), <https://co2science.org/subject/a/agriculturemaize.php> and [http://www.co2science.org/data/plant\\_growth/dry/z/zeam.php](http://www.co2science.org/data/plant_growth/dry/z/zeam.php)

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**Ignorance of History:** In "The Weaponization of Weather in the Phony Climate War," Joe Bastardi of WeatherBELL Analytics states that a problem of many alarming papers is that their data does not go back more than 50 years. This ignorance of history was demonstrated by a paper in *Nature* and a news release by the Okinawa Institute of Science and Technology (OIST) Graduate University. The paper claimed warming oceans means hurricanes weaken more slowly and inflict more destruction farther inland. The study period was the last 50 years.

A quick look at the U.S. Hurricane Strikes by Decade from 1851 to 2004 posted by the National Hurricane Center shows possibly the three worst decades for hurricanes in recorded history. A ranking of the major storms (Cat 3 or above) reveals 1941 to 1950 with 10, 1931 to 1940 with 8; 1951-1960 with 8. Unfortunately, the decadal classification of these data has been discontinued, thus TWTW cannot contradict the study with one easily available table.

However, both Kenneth Richard and Paul Homewood produced information that the conclusions of the paper are not correct. Most compelling is a graph of Global Tropical Cyclone Landfalls at Hurricane strength 1970 to 2019 presented in an article by Roger Pielke and Ryan Maue in *Forbes* in January. This clearly indicates there has been no increase in major hurricanes hitting the US. Consequently, the evidence indicates that the conclusions of the study are wrong. See links under Challenging the Orthodoxy, Defending the Orthodoxy, Changing Weather, and <https://www.nhc.noaa.gov/pastdec.shtml>

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**Point of No Return:** Even more outlandish, *Nature* published a paper claiming that: "An earth system model shows self-sustained melting of permafrost even if all man-made GHG emissions stop in 2020." Thus, according to the paper, even if humanity stopped CO2 emissions immediately, the temperatures of the Earth will increase out of control.

The fear of melting permafrost is driven by the fear of atmospheric methane increasing, intensifying the greenhouse effect. However, there are several reasons why the fear is far-fetched. One, as shown in numerous studies, increasing permafrost melting is increasing plant growth, particularly in root mass. Thus, melting of permafrost is not releasing methane because plants are using it as fertilizer. Two, methane has a short lifetime in the atmosphere, because it is rapidly oxidized into CO<sub>2</sub> and H<sub>2</sub>O. Both these gases are saturated, and have logarithmic, self-limiting impacts on temperatures.

Not surprisingly, the *Nature* paper has been retracted. Even global warming alarmists found it too much. It may prompt the public to claim that expensive reductions in CO<sub>2</sub> emission are useless because we are all doomed anyway. Needless to say, *Nature* has little understanding of nature. See links under Challenging the Orthodoxy, Defending the Orthodoxy, and Lowering Standards.

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**Disconnect:** On Judith Curry's Climate Etc., Kenneth Fritsch has an explanation for the apparent statistical disconnection between the earlier UN CMIP5 models and the latest CMIP6 models. Frisch considers this disconnection from the standpoint of individual model climate sensitivities and Global Mean Surface Temperatures (GMST).

To TWTW, the real disconnect is the inability of climate models to describe what is occurring between atmospheric temperature trends and greenhouse gas increases. Further, seeking the Equilibrium Climate Sensitivity to carbon dioxide is a false goal. One must establish an example of an equilibrium climate. Given the constant turmoil ongoing throughout history, such a climate never existed before or after man appeared. See links under Model Issues.

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**Censorship:** Unfortunately, scientific journals have been censoring valid papers submitted to them that question the theme that carbon dioxide is causing dangerous warming. This politicized censoring has been a difficult problem since the 1990s. The flow of scientific information to the public is being highly restricted for political reasons. For these reasons, blogs and "preprints" that have not undergone official "peer review" are becoming more common. In many cases "peer review" is about the same as "approved by the censors." For information on how such "peer review" is avoided, see link under Censorship.

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**Number of the Week: 86 to 238%.** As reported in CO<sub>2</sub> Science, a study by Vanaja, et al. presented data on "Harvestable grain yield of well-watered and fertilized plants grown from seeding to harvest at Hyderabad, India, out-of-doors in the field within open-top chambers made of transparent PVC sheeting having a 90% transmittance of light." The increase in yield from an increase in CO<sub>2</sub> concentration of 300 parts per million ranged from 86 to 238%, depending on the cultivar of corn used. The fear of CO<sub>2</sub>-caused warming eliminating corn is misplaced and corn cultivation benefits from increasing CO<sub>2</sub>. See

[http://www.co2science.org/data/plant\\_growth/dry/z/zeam.php](http://www.co2science.org/data/plant_growth/dry/z/zeam.php)

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## NEWS YOU CAN USE:

### *Censorship*

#### **Free science is here and growing fast**

By David Wojick, WUWT, Nov 9, 2020

<https://wattsupwiththat.com/2020/11/09/free-science-is-here-and-growing-fast/>

### ***Challenging the Orthodoxy -- NIPCC***

#### **Climate Change Reconsidered II: Physical Science**

Idso, Carter, and Singer, Lead Authors/Editors, Nongovernmental International Panel on Climate Change (NIPCC), 2013

<https://www.heartland.org/media-library/pdfs/CCR-II/CCR-II-Full.pdf>

Summary: <https://www.heartland.org/template-assets/documents/CCR/CCR-II/Summary-for-Policymakers.pdf>

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

Idso, Idso, Carter, and Singer, Lead Authors/Editors, Nongovernmental International Panel on Climate Change (NIPCC), 2014

<http://climatechangereconsidered.org/climate-change-reconsidered-ii-biological-impacts/>

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

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

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

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

Download with no charge:

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

#### **Why Scientists Disagree About Global Warming**

The NIPCC Report on the Scientific Consensus

By Craig D. Idso, Robert M. Carter, and S. Fred Singer, Nongovernmental International Panel on Climate Change (NIPCC), Nov 23, 2015

<http://climatechangereconsidered.org/>

Download with no charge:

<https://www.heartland.org/policy-documents/why-scientists-disagree-about-global-warming>

#### **Nature, Not Human Activity, Rules the Climate**

S. Fred Singer, Editor, NIPCC, 2008

[http://www.sepp.org/publications/nipcc\\_final.pdf](http://www.sepp.org/publications/nipcc_final.pdf)

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

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

<https://www.heartland.org/template-assets/documents/publications/SeaLevelRiseCCRII.pdf>

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

#### **Dependence of Earth's Thermal Radiation on Five Most Abundant Greenhouse Gases**

By W. A. van Wijngaarden and W. Happer, Atmospheric and Oceanic Physics, submitted June 4, 2020

<https://arxiv.org/abs/2006.03098>

Link to prepublication version: <https://arxiv.org/pdf/2006.03098.pdf>

#### **Facts and Theories, Updated**

By Andy May, WUWT, Nov 10, 2020

<https://wattsupwiththat.com/2020/11/10/facts-and-theories-updated/>

### **Modern Climate Change Science**

By Andy May, WUWT, Nov 12, 2020

<https://wattsupwiththat.com/2020/11/12/modern-climate-change-science/>

[SEPP Comment; Does not include work done using HITRAN or MODTRAN.]

### **Climate Sensitivity Considering Urban and Natural Warming**

Guest Post by Ken Gregory, P. Eng., Not a Lot of People Know That, Nov 12, 2020

<https://notalotofpeopleknowthat.wordpress.com/2020/11/12/climate-sensitivity-considering-urban-and-natural-warming/>

### **What 50 Years Of Global Hurricane Landfall Data Can Teach Us About Climate Change**

By Roger Pielke and Ryan Maue, Forbes, Jan 9, 2020

<https://www.forbes.com/sites/rogerpielke/2020/01/09/tropical-cyclone-landfalls-around-the-world-over-the-past-50-years/?sh=681769683b00>

### **Wind Power Economics – Rhetoric and Reality**

By Gordon Hughes, Renewable Energy Foundation, Nov 3, 2020 [H/t GWPF]

<https://www.ref.org.uk/ref-blog/365-wind-power-economics-rhetoric-and-reality>

### ***Defending the Orthodoxy***

#### **Corn and other crops are not adapted to benefit from elevated carbon dioxide levels**

News Release: Carl R. Woese Institute for Genomic Biology, University of Illinois at Urbana-Champaign, Nov 5, 2020 [H/t Bernie Kepshire]

<https://www.sciencedaily.com/releases/2020/11/201105134513.htm>

Link to paper: Retrospective analysis of biochemical limitations to photosynthesis in 49 species: C4 crops appear still adapted to pre-industrial atmospheric [CO<sub>2</sub>]

By Charles P. Pignon & Stephen P. Long, Plant, Cell & Environment, Aug 2, 2020

<https://onlinelibrary.wiley.com/doi/10.1111/pce.13863>

### **Climate change causes landfalling hurricanes to stay stronger for longer**

Warming oceans means hurricanes weaken more slowly and inflict more destruction farther inland, new study shows

News Release, Okinawa Institute of Science and Technology (OIST) Graduate University, Nov 11, 2020

<https://www.sciencedaily.com/releases/2020/11/20111122826.htm>

Link to paper: Slower decay of landfalling hurricanes in a warming world

By Lin Li & Pinaki Chakraborty, Nature, Nov 11, 2020

<https://www.nature.com/articles/s41586-020-2867-7>

### **Study: Humanity “is beyond the point-of-no-return” on Climate Change**

By Eric Worrall WUWT, Nov 13, 2020

<https://wattsupwiththat.com/2020/11/13/study-humanity-is-beyond-the-point-of-no-return-on-climate-change/>

Link to paper: An earth system model shows self-sustained melting of permafrost even if all man-made GHG emissions stop in 2020

By Jorgen Randers & Ulrich Goluke, Nature, Scientific Reports, Nov 12, 2020

<https://www.nature.com/articles/s41598-020-75481-z>

From abstract: “To stop the self-sustained warming in ESCIMO, enormous amounts of CO<sub>2</sub> have to be extracted from the atmosphere.”

### **Media reaction: What Joe Biden’s US election victory means for climate change**

By Josh Gabbatiss, Carbon Brief, Nov 10, 2020

[https://www.carbonbrief.org/media-reaction-what-joe-bidens-us-election-victory-means-for-climate-change?utm\\_campaign=Carbon%20Brief%20Weekly%20Briefing&utm\\_content=20201113&utm\\_medium=email&utm\\_source=Revue%20newsletter](https://www.carbonbrief.org/media-reaction-what-joe-bidens-us-election-victory-means-for-climate-change?utm_campaign=Carbon%20Brief%20Weekly%20Briefing&utm_content=20201113&utm_medium=email&utm_source=Revue%20newsletter)

### ***Questioning the Orthodoxy***

#### **SAR, the Turning Point**

By Andy May, WUWT, Nov 9, 2020

<https://wattsupwiththat.com/2020/11/09/sar-the-turning-point/>

**The Conversation: “Right now, there is no federal agency tasked with developing a systemic understanding of climate change...”**

By Eric Worrall, WUWT, Nov 12, 2020

<https://wattsupwiththat.com/2020/11/12/the-conversation-right-now-there-is-no-federal-agency-tasked-with-developing-a-systemic-understanding-of-climate-change/>

*[SEPP Comment: Only the 13 agencies making up the USGCRP, which do so incompetently.]*

### ***Change in US Administrations***

#### **Energy in the Executive Branch**

By Steven F. Hayward, Real Clear Energy, Nov 11, 2020

[https://www.realclearenergy.org/articles/2020/11/11/energy\\_in\\_the\\_executive\\_branch\\_583551.html](https://www.realclearenergy.org/articles/2020/11/11/energy_in_the_executive_branch_583551.html)

#### **The Coming Energy Shocks Under A Biden Administration**

By Tilak Doshi, Forbes, Nov 11, 2020

<https://www.forbes.com/sites/tilakdoshi/2020/11/11/the-coming-energy-shocks-under-a-biden-administration/?sh=38225201229d>

Biden administration expected to emphasize climate science over lunar exploration at NASA

By Jeff Foust, Space News, Nov 9, 2020

<https://spacenews.com/biden-administration-expected-to-emphasize-climate-science-over-lunar-exploration-at-nasa/>

#### **Biden's climate plan could reduce global warming by about 0.1°C**

By Marco Tedesco, Earth Institute at Columbia University, Phys.org, Nov 12, 2020 [H/t Bernie Kepshire]

<https://phys.org/news/2020-11-biden-climate-global-01c.html>

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

#### **Who turned out the lights?**

By John Robson, Climate Discussion Nexus, Nov 11, 2020

<https://climatediscussionnexus.com/2020/11/11/who-turned-out-the-lights/>

### **China’s Coal Power Rising Again**

By Paul Homewood, Not a Lot of People Know That, Nov 11, 2020

<https://notalotofpeopleknowthat.wordpress.com/2020/11/11/chinas-coal-power-rising-again/>

### **France relights coal power plants to keep the lights on**

By Staff, Europe1, Via GWPF, Nov 13, 2020

<https://www.thegwpf.com/france-restarts-coal-power-plants-to-keep-the-lights-on/>

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

#### **Will we learn from Oregon's wildfire history and avoid the clearly predictable coming firestorms?**

By Bob Zybach, Commentator, Statesman Journal, Nov 6, 2020

<https://www.statesmanjournal.com/story/opinion/2020/11/06/we-learn-oregons-wildfire-history-and-avoid-clearly-predictable-coming-firestorms/6168469002/>

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

#### **Projecting Mid- and Late-century Spring Potato Yields in South Korea**

Kim, Y.-U. and Lee, B.-W. 2020. Earlier planting offsets the adverse effect of global warming on spring potato in South Korea. *Science of the Total Environment* 742: 140667, doi.org/10.1016/j.scitotenv.2020.140667. Nov 13, 2020

<http://www.co2science.org/articles/V23/nov/a6.php>

#### **The Interactive Effects of CO2 and Salt Stress on Tomato Seedlings**

Zhang, Y., Yao, Q., Shi, Y., Li, X., Hou, L., Xing, G. and Ahammed, J. 2020. Elevated CO2 improves antioxidant capacity, ion homeostasis, and polyamine metabolism in tomato seedlings under Ca(NO3)2-induced salt stress. *Scientia Horticulturae* 273: 109644, doi.org/10.1016/j.scienta.2020.109644. Nov 11, 2020

<http://www.co2science.org/articles/V23/nov/a5.php>

“Salt stress is a serious challenge to the growth and yield of crops in many parts of the world. Writing as background for their work, Zhang *et al.* (2020) note that soil salinization often leads to physiological and metabolic impairments, including ‘mineral nutrient deficiency, damage to photosynthetic organs, reductions of photosynthetic efficiency, inhibition in plant growth and development, and ultimately yield decline.’ On the other hand, CO2 enrichment has been shown to lead to numerous physiological and metabolic benefits that improve plant growth and yield. Consequently, it is likely that rising CO2 will help alleviate the negative effects of salt stress on plants in the years and decades to come.”

#### **Further Evidence the CO2 Fertilization Effect is Presently Enhancing Global Vegetative Productivity**

Ueyama, M., Ichii, K., Kobayashi, H., Kumagai, T., Beringer, J., Merbold, L., Euskirchen, E.S., Hirano, T., Marchesini, L.B., Baldocchi, D., Saitoh, T.M., Mizoguchi, Y., Ono, K., Kim, J., Varlagin, A., Kang, M., Shimizu, T., Kosugi, Y., Bret-Harte, M.S., Machimura, T., Matsuura, Y., Ohta, T., Takagi, K., Takanashi, S. and Yasuda, Y. 2020. Inferring CO2 fertilization effect based on global monitoring land-atmosphere exchange with a theoretical model. *Environmental Research Letters* 15: 084009, doi.org/10.1088/1748-9326/ab79e5. Nov 9, 2020

<http://www.co2science.org/articles/V23/nov/a4.php>

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

#### **Out of thin air... and back into it again**

By John Robson, Climate Discussion Nexus, Nov 11, 2020

<https://climatediscussionnexus.com/2020/11/11/out-of-thin-air-and-back-into-it-again/>

“Recently however, in this theory, anthropogenic greenhouse gas accumulation is expected to have thrown the balance off by a whopping 0.1 Watt per square meter, leading to a tiny amount of warming of the atmosphere and oceans. But as noted, our best satellites can't measure the energy flows more precisely than plus or minus 4 watts per square meter. So how do they know when the signal is lost in the noise?”

### **Models Issues:**

#### **Disconnect in the relationship between GMST and ECS**

By Kenneth Fritsch, Climate Etc., Nov 11, 2020

<https://judithcurry.com/2020/11/11/disconnect-in-the-relationship-between-gmst-and-ecs/>

### **Changing Weather**

#### **Study On Hurricanes In Journal ‘Nature’ Plagued By “Massive Error”, Expert Says. Cyclones Not Getting Worse**

By P Gosselin, No Tricks Zone, Nov 13, 2020

<https://notrickszone.com/2020/11/13/study-on-hurricanes-in-journal-nature-plagued-by-massive-error-experts-says-cyclones-not-getting-worse/>

#### **Latest Alarmist Hurricane Study Easily Debunked**

By Paul Homewood, Not a Lot of People Know That, Nov 12, 2020

<https://notalotofpeopleknowthat.wordpress.com/2020/11/12/latest-alarmist-hurricane-study-easily-debunked/>

“This paper is typical of so many climate change papers nowadays. Researchers, fed with massive grants, decide what they are going to find, and then massage the data to get the right conclusions.”

#### **The Big Dry Ten Years On**

By Paul Homewood, Not a Lot of People Know That, Nov 13, 2020

<https://notalotofpeopleknowthat.wordpress.com/2020/11/13/the-big-dry-ten-years-on/>  
[SEPP Comment: Exposing examples of torturing data.]

#### **Storm Approaches With High Winds South of Seattle and Heavy Snow in the Mountains**

By Cliff Mass, Weather Blog, Nov 11, 2020

<https://cliffmass.blogspot.com/2020/11/storm-approaches-with-high-winds-south.html>  
[SEPP Comment: Brings up some of the challenges in weather forecasting.]

### **Changing Climate**

#### **New Study: Western North America Was Much Warmer And Drier With Peak Wildfire Rates When CO2 Was 265ppm**

By Kenneth Richard, No Tricks Zone, Nov 12, 2020

<https://notrickszone.com/2020/11/12/new-study-western-north-america-was-much-warmer-and-drier-with-peak-wildfire-rates-when-co2-was-265ppm/>

Link to paper: Great Basin Paleoclimate and Aridity Linked to Arctic Warming and Tropical Pacific Sea Surface Temperatures

By Matthew Scott Lachniet, et al. Paleoceanography and Paleoclimatology, June 2020

[https://www.researchgate.net/publication/342133019\\_Great\\_Basin\\_Paleoclimate\\_and\\_Aridity\\_Linked\\_to\\_Arctic\\_Warming\\_and\\_Tropical\\_Pacific\\_Sea\\_Surface\\_Temperatures](https://www.researchgate.net/publication/342133019_Great_Basin_Paleoclimate_and_Aridity_Linked_to_Arctic_Warming_and_Tropical_Pacific_Sea_Surface_Temperatures)

### **Changing Seas**



## **Ocean Chill Increases Oct. 2020**

By Ron Clutz, Science Matters, Nov 11, 2020

<https://rclutz.wordpress.com/2020/11/11/ocean-chill-increases-oct-2020/>

“The best context for understanding decadal temperature changes comes from the world’s sea surface temperatures (SST), for several reasons:

- The ocean covers 71% of the globe and drives average temperatures;
- SSTs have a constant water content, (unlike air temperatures), so give a better reading of heat content variations;
- A major El Nino was the dominant climate feature in recent years.”

“HadSST3 is distinguished from other SST products because HadCRU (Hadley Climatic Research Unit) does not engage in SST interpolation, i.e. infilling estimated anomalies into grid cells lacking sufficient sampling in a given month.”

## **Live coral**

By John Robson, Climate Discussion Nexus, Nov 11, 2020

<https://climatediscussionnexus.com/2020/11/11/live-coral/>

*[SEPP Comment: It was dead last week!]*

## **NASA Watches Sea Level Rise from Space, and its Centers' Windows**

By Lara Streiff for GSFC News, Greenbelt MD (SPX) Nov 11, 2020

[https://www.terraily.com/reports/NASA\\_Watches\\_Sea\\_Level\\_Rise\\_from\\_Space\\_and\\_its\\_Centers\\_Windows\\_999.html](https://www.terraily.com/reports/NASA_Watches_Sea_Level_Rise_from_Space_and_its_Centers_Windows_999.html)

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

### **2 More Studies Affirm Nothing Unusual Or Unprecedented Is Occurring In Polar Climates Today**

By Kenneth Richard, No Tricks Zone, Nov 9, 2020

<https://notrickszone.com/2020/11/09/2-more-studies-affirm-nothing-unusual-or-unprecedented-is-occurring-in-polar-climates-today/>

Link to one study: Lateglacial and Holocene palaeoenvironments on Bolshevik Island (Severnaya Zemlya), Russian High Arctic

By Anna A. Cherezova, et al. Boreas, An Internal Journal of Quaternary Research, Jan 24, 2020

<https://onlinelibrary.wiley.com/doi/abs/10.1111/bor.12428>

## **Atmospheric rivers help create massive holes in Antarctic sea ice**

By Staff Writers, New Brunswick NJ (SPX), Nov 12, 2020

[https://www.spacedaily.com/reports/Atmospheric\\_rivers\\_help\\_create\\_massive\\_holes\\_in\\_Antarctic\\_sea\\_ice\\_999.html](https://www.spacedaily.com/reports/Atmospheric_rivers_help_create_massive_holes_in_Antarctic_sea_ice_999.html)

Link to paper: On the crucial role of atmospheric rivers in the two major Weddell Polynya events in 1973 and 2017 in Antarctica

By Diana Francis, et al. Science Advances, Nov 11, 2020

<https://advances.sciencemag.org/content/6/46/eabc2695>

## **Giant berg on collision course with South Georgia**

By Staff Writers, Paris (ESA), Nov 11, 2020

[https://www.spacedaily.com/reports/Giant\\_berg\\_on\\_collision\\_course\\_with\\_South\\_Georgia\\_999.html](https://www.spacedaily.com/reports/Giant_berg_on_collision_course_with_South_Georgia_999.html)

## **Shorefast ice formation and the fall feeding season for polar bears**

By Susan Crockford, Polar Bear Science, Nov 11, 2020

<https://polarbearsience.com/2020/11/11/shorefast-ice-formation-and-the-fall-feeding-season-for-polar-bears/>

### ***Changing Earth***

#### **How ancient dust from the sea floor helps to explain climate history**

A research team led by geoscientists of the University of Oldenburg, Germany, analyzed sediment cores from the South Pacific

News Release, University of Oldenburg, Nov 9, 2020

[https://www.eurekalert.org/pub\\_releases/2020-11/uoo-had110920.php](https://www.eurekalert.org/pub_releases/2020-11/uoo-had110920.php)

### ***Agriculture Issues & Fear of Famine***

#### **Food emissions could push Earth past global warming limits**

By Kelly MacNamara, Paris (AFP) ,Nov 6, 2020

[https://www.seeddaily.com/reports/Food\\_emissions\\_could\\_push\\_Earth\\_past\\_global\\_warming\\_limits\\_999.html](https://www.seeddaily.com/reports/Food_emissions_could_push_Earth_past_global_warming_limits_999.html)

### ***Lowering Standards***

#### **What Fatih Birol Forgot To Tell You**

By Paul Homewood, Not a Lot of People Know That, Nov 11, 2020

<https://notalotofpeopleknowthat.wordpress.com/2020/11/11/what-fatih-birol-forgot-to-tell-you/>

*[SEPP Comment: Further exposing the misleading numbers from the International Energy Agency (EIA).]*

#### **‘Unstoppable’ global warming claim withdrawn by Scientific Reports journal**

By Staff, The Times, Via GWPF, Nov 13, 2020

<https://www.thegwpf.com/false-alarm-unstoppable-global-warming-claim-withdrawn-by-scientific-reports-journal/>

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

#### **West Side story**

By John Robson, Climate Discussion Nexus, Nov 11, 2020

<https://climatediscussionnexus.com/2020/11/11/west-side-story/>

*[SEPP Comment: Defying watery predictions.]*

#### **World is running out of time on climate, experts warn**

In wake of Covid, leading figures call for bold green measures to boost economy

By Fiona Harvey, The Guardian, Nov 9, 2020

[https://www.theguardian.com/environment/2020/nov/09/world-is-running-out-of-time-on-climate-experts-warn?CMP=Share\\_iOSApp\\_Other](https://www.theguardian.com/environment/2020/nov/09/world-is-running-out-of-time-on-climate-experts-warn?CMP=Share_iOSApp_Other)

### **Arctic circle**

By John Robson, Climate Discussion Nexus, Nov 11, 2020

<https://climatediscussionnexus.com/2020/11/11/arctic-circle/>

### ***Communicating Better to the Public – Protest***

#### **Remembrance Day Warning: From climate hysteria to justifying green wars**

By Staff, GWPF & Journal of Military Ethics, Nov 11, 2020

<https://www.thegwpf.com/remembrance-day-warning-from-climate-hysteria-to-justifying-wars/>

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

#### **The contradictions of Green policies to limit CO2 emissions**

By Ed Hoskins, edmhdtme, Accessed, Nov 12, 2020 [H/t WUWT]

<https://edmhdtme.wordpress.com/the-inconsistencies-in-green-policies-to-limit-co2-emissions/>

“Wherever the Biomass is sourced, remotely for example from Africa, North America, Indonesia, etc. the environmental damage that the industry causes is virtually irreparable even in the medium term.”

“The recent Michael Moore film made a telling point, that there is only enough forest timber in the whole USA to power its supply grid for a single year: and after that the forests are gone. Whereas Gas and other Fossil fuel reserves will still be available for the longer-term.”

“An excellent way to undermine Western economies is to render their power generation unreliable and expensive. That objective of Green thinking is progressively being achieved by policy throughout the Western world.”

#### **Blackout alert from National Grid as Britain sails close to wind**

By Staff, The Times, Nov 9, 2020

<https://www.thegwpf.com/blackout-alert-from-national-grid-as-britain-sails-close-to-wind/>

### ***Questioning Green Elsewhere***

#### **The Guardian: Joe Biden’s \$1.7 Trillion Investment Could Reduce Global Warming by 0.1C**

By Eric Worrall, WUWT, Nov 8, 2020

<https://wattsupwiththat.com/2020/11/08/the-guardian-joe-bidens-1-7-trillion-investment-could-low-global-warming-by-0-1c/>

#### **World Ignores Green Recovery—Prefers To Avoid Devastating Recession Instead**

By Paul Homewood, Not a Lot of People Know That, Nov 11, 2020

<https://notalotofpeopleknowthat.wordpress.com/2020/11/11/world-ignores-green-recovery-prefers-to-avoid-devastating-recession-instead/>

“There is a very simple reason why governments outside of Europe are not going for a green recovery. It is no more than a sham, which will see trillions of dollars tipped down the drain, accompanied by the collapse of traditional economies.”

*[SEPP Comment: Government spending money to replace a solid functioning electrical system with an erratic one damages productivity and prosperity. It is similar to replacing earth movers with humans using shovels.]*

#### **So now can we build back better?**

By John Robson, Climate Discussion Nexus, Nov 11, 2020

<https://climatediscussionnexus.com/2020/11/11/so-now-can-we-build-back-better/>

“In what direction? If only we knew.”

#### **The True Cost Of The Global Energy Transition**

By Irina Slav, Oil Price.com, Nov 9, 2020

<https://oilprice.com/Energy/General/The-True-Cost-Of-The-Global-Energy-Transition.html>

### ***Green Jobs***

#### **Boris Johnson seeks advice on how to create 2 million green jobs**

By Staff, Bloomberg, Via GWPF, Nov 12, 2020

<https://www.thegwpf.com/boris-johnson-seeking-advice-how-to-create-2-million-green-jobs/>

### ***Funding Issues***

#### **HKMA Joins New Alliance On Green Financing As US\$29 Trillion In Opportunities Expected Over Next Decade**

Alliance for Green Commercial Banks will help lenders address unmet green financing needs, HKMA says About US\$18 trillion in green and climate-related financing opportunities are expected in the next decade in Asia

By Staff, South China Morning Post, Nov 9, 2020

<https://www.thestreet.com/partner/hkma-joins-new-alliance-on-green-financing-as-us-29-trillion-in-opportunities-expected-over-next-decade-15483852>

### ***The Political Games Continue***

#### **Labor's climate crisis escalates down under**

By Staff, Financial Review, Via GWPF, Nov 10, 2020

<https://www.thegwpf.com/labors-climate-crisis-escalates-down-under/>

#### **Put More Money into Renewable Energy or We'll Report You to Joe Biden?**

By Eric Worrall, WUWT, Nov 9, 2020

<https://wattsupwiththat.com/2020/11/09/uk-pm-boris-johnson-warned-joe-biden-will-expect-more-cash-for-renewable-energy/>

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

#### **Trump's FERC Pushes Carbon Taxes—and Gets Caught (consumerism, anyone?)**

By Martin Rodriguez and Clint Woods, Master Resource, Nov 12, 2020

<https://www.masterresource.org/carbon-tax/trump-ferc-carbon-taxes/>

### ***Subsidies and Mandates Forever***

#### **Green lobby up in arms as France plans to tear up solar subsidy contracts**

By Staff, GWPF & Financial Times, Nov 13, 2020

<https://www.thegwpf.com/green-lobby-up-in-arms-as-france-tears-up-solar-subsidy-contracts/>

### ***Energy Issues – Non-US***

#### **Estimating the actual costs of converting to renewable energy sources**

By Bob Yirka, Tech Xplore, Nov 11, 2020 [H/t Bernie Kepshire]

<https://techxplore.com/news/2020-11-actual-renewable-energy-sources.html>

Link to paper: A systematic review of the costs and impacts of integrating variable renewables into power grids

By Philip J. Heptonstall & Robert J. K. Gross, Nature Energy, Nov 2, 2020

<https://www.nature.com/articles/s41560-020-00695-4>

From abstract: “Data are scarce at high penetrations, but show that the range widens.”

#### **GWPF welcomes delay to UK energy white paper**

“Astronomical Net Zero costs no longer affordable”

Press Release, GWPF, Nov 12, 2020

<https://www.thegwpf.com/gwgf-welcomes-delay-to-energy-white-paper/>

#### **Britain yet to choose between carbon tax or emissions trading post-Brexit**

By Staff, The Economic Times, Nov 13, 2020

<https://www.thegwpf.com/britain-yet-to-choose-between-carbon-tax-or-emissions-trade-post-brexif/>

### **Brexit Poker: EU threatens Britain with energy blockade**

By Staff, GWPF & Bloomberg, Nov 12, 2020

<https://www.thegwpf.com/brexit-poker-eu-threatens-britain-with-energy-blockade/>

### ***Energy Issues – Australia***

#### **AFR: Ignoring Climate Activist Campaigns is No Longer an Option for Australian Business**

By Eric Worrall, WUWT, Nov 11, 2020

<https://wattsupwiththat.com/2020/11/11/ft-ignoring-climate-activist-campaigns-is-no-longer-an-option-for-australian-business/>

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

#### **EIA: US CO2 Emissions From Electricity Generation Down to 1980's Levels... Frac On!**

By David Middleton, WUWT, Nov 11, 2020

<https://wattsupwiththat.com/2020/11/11/eia-us-co2-emissions-from-electricity-generation-down-to-1980s-levels-frac-on/>

Link to report: U.S. energy-related carbon dioxide emissions fell in 2019, mainly in electric generation

By Kevin Nakolan, et al, EIA, Nov 10, 2020

<https://www.eia.gov/todayinenergy/detail.php?id=45836>

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

#### **Steel! Meet the Metallurgical Coal Producers Association**

By Robert Bradley Jr., Master Resource, Nov 10, 2020

<https://www.masterresource.org/coal/meet-the-metallurgical-coal-producers-association-formerly-virginia-coal-and-energy-alliance/>

### ***Nuclear Energy and Fears***

#### **Fusion Soon, Maybe**

By Donn Dears, Power For USA, Nov 14, 2020

<https://ddears.com/2020/11/14/fusion-soon-maybe/>

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

#### **UK wind subsidy shift raises repowering hopes**

By Neil Ford, Reuters, Nov 12, 2020

[https://www.reutersevents.com/renewables/wind/uk-wind-subsidy-shift-raises-repowering-hopes?utm\\_campaign=NEP%20WIN%2013NOV20%20Newsletter%20B&utm\\_medium=email&utm\\_source=Eloqua](https://www.reutersevents.com/renewables/wind/uk-wind-subsidy-shift-raises-repowering-hopes?utm_campaign=NEP%20WIN%2013NOV20%20Newsletter%20B&utm_medium=email&utm_source=Eloqua)

“From next year, UK onshore wind developers will be able to bid for government subsidies, ending a five-year moratorium on price support. Under government plans, onshore wind and solar will compete for contracts for difference (CfDs), boosting the business case for greenfield and repowering projects.”

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

#### **Wiltshire Council To Waste £484m On Zero Carbon Plan**

By Paul Homewood, Not a Lot of People Know That, Nov 10, 2020

<https://notalotofpeopleknowthat.wordpress.com/2020/11/10/wiltshire-council-to-waste-484m-on-zero-carbon-plan/>

“However, it is the improvement of existing homes which sticks out like a sore thumb. According to the council website, the council owns over 5,000 properties. So expenditure of £289m, which works out at a mind boggling £57,800 apiece. Energy Performance Rating B is not even particularly high anyway – typically a condensing boiler, triple glazing, cavity and loft insulation gets a B rating.”

“If we apply this cost of £57,800 to the nation’s housing stock of 27m, we get a total cost of £1.56 trillion!”

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

#### **Utility-Scale Battery Costs “Fall” to \$625/kWh**

By David Middleton, WUWT, Nov 10, 2020

<https://wattsupwiththat.com/2020/11/10/utility-scale-battery-costs-fall-to-625-kwh/>

Link to report: Utility-scale battery storage costs decreased nearly 70% between 2015 and 2018

By Sara Hoff, Alexander Mey, et al. EIA, Oct 23, 2020

<https://www.eia.gov/todayinenergy/detail.php?id=45596>

[SEPP Comment: In July, US peak demand reaches about 660 million kWh.]

<https://www.eia.gov/todayinenergy/detail.php?id=42915>

### **Electricity Storage Systems Still Woefully Lack, Indefinitely Hampering The German Green Energy Dream**

The pitfalls of planned economies...

Power shortages, power surpluses, seas of milk and mountains of butter

By Reinhard Storz (Translated/ edited by P. Gosselin), No Tricks Zone, Nov 10, 2020

<https://notrickszone.com/2020/11/10/electricity-storage-systems-still-woefully-lack-indefinitely-hampering-the-german-green-energy-dream/>

### ***Alternative, Green (“Clean”) Vehicles***

#### **Tory MPs call on Shapps to Stop the war on the motorist**

By Paul Homewood, Not a Lot of People Know That, Nov 10, 2020

<https://notalotofpeopleknowthat.wordpress.com/2020/11/10/tory-mps-call-on-shapps-to-stop-the-war-on-the-motorist/>

### ***California Dreaming***

#### **Record Heat In California Claims Not Supported By Data**

By Paul Homewood, Not a Lot of People Know That, Nov 9, 2020

<https://notalotofpeopleknowthat.wordpress.com/2020/11/09/record-heat-in-california-claims-not-supported-by-data/>

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

#### **Climate Change Poses Biggest Threat To UK Health—NHS Chief**

By Paul Homewood, Not a Lot of People Know That, Nov 8, 2020

<https://notalotofpeopleknowthat.wordpress.com/2020/11/08/climate-change-poses-biggest-threat-to-uk-health-nhs-chief/>

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

#### **Noosa River Mouth, 1973 & Yesterday**

By Jennifer Marohasy, Her Blog, Nov 10, 2020

<https://jennifermarohasy.com/2020/11/noosa-river-mouth-1973-yesterday/>

“When we really care about something, we should think about first understanding it. That means we might need to take some time out, to watch and listen and even read. Of course, a best way to learn is to hear different perspectives and then to go see, to trust our own eyes and capacity to reason.”

### **Steam Fog Season**

By Cliff Mass, Weather Blog, Nov 7, 2020

<https://cliffmass.blogspot.com/2020/11/steam-fog-season.html>

### **Virgin's Hyperloop carries passengers for the first time**

By Staff Writers, Los Angeles (AFP), Nov 9, 2020

[https://www.terradaily.com/reports/Virgins\\_Hyperloop\\_carries\\_passengers\\_for\\_the\\_first\\_time\\_999.html](https://www.terradaily.com/reports/Virgins_Hyperloop_carries_passengers_for_the_first_time_999.html)

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## **BELOW THE BOTTOM LINE**

### **Friday Funny BONUS: Funniest Things Blamed on Climate Change?**

Posted by Anthony Watts, WUWT, Nov 13, 2020

<https://wattsupwiththat.com/2020/11/13/friday-funny-bonus-funniest-things-blamed-on-climate-change/>

### **Michael Kuperberg Fired from National Climate Assessment Post**

By Eric Worrall, WUWT, Nov 10, 2020

<https://wattsupwiththat.com/2020/11/10/michael-kuperberg-fired-from-national-climate-assessment/>

Link to full article: Trump Administration Removes Scientist in Charge of Assessing Climate Change

Michael Kuperberg was told he would no longer oversee the National Climate Assessment. The job is expected to go to a climate-change skeptic, according to people familiar with the changes.

By Christopher Flavelle, Lisa Friedman and Coral Davenport, NYT, Nov 9, 2020

<https://www.nytimes.com/2020/11/09/climate/michael-kuperberg-climate-assessment.html>

“A biased or diminished climate assessment would have wide-ranging implications.”

“And, ultimately, it could weaken what is known as the “endangerment finding,” a 2009 scientific finding by the Environmental Protection Agency that said carbon dioxide and other greenhouse gas emissions pose a threat to human health and therefore are subject to government regulation.

Undercutting that finding could make it more difficult to fight climate change under the terms of the Clean Air Act.”

*[SEPP Comment: The last National Climate Assessment was a joke.]*

### **Jumping the shark**

By John Robson, Climate Discussion Nexus, Nov 11, 2020

<https://climatediscussionnexus.com/2020/11/11/jumping-the-shark/>

### **New Video : Biden's Nature Trick**

By Tony Heller, His Blog, Nov 11, 2020

<https://realclimatescience.com/2020/11/new-video-bidens-nature-trick/>

## **Newly discovered primate in Myanmar 'already facing extinction'**

By Marlowe Hood, Paris (AFP), Nov 11, 2020

[https://www.terraviva.com/reports/Newly\\_discovered\\_primate\\_in\\_Myanmar\\_already\\_facing\\_extinction\\_999.html](https://www.terraviva.com/reports/Newly_discovered_primate_in_Myanmar_already_facing_extinction_999.html)

*[SEPP Comment: Previously, the “newly discovered” had huge recent populations?]*

## **Russian Navy Shoots Bear – BBC Expresses Outrage!**

By Paul Homewood, Not a Lot of People Know That, Nov 9, 2020

<https://notalotofpeopleknowthat.wordpress.com/2020/11/09/russian-navy-shoots-bear-bbc-expresses-outrage/>

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## **ARTICLES**

### **Biden’s Plan to Shift Energy Policy Faces Headwinds**

President-elect faces competing pressure from unions, environmentalists, energy industry and Congress

By Timothy Puko, WUWT, Nov 10, 2020

<https://www.wsj.com/articles/bidens-plan-to-shift-energy-policy-faces-headwinds-11605016802>

TWTW Summary: The journalist writes:

*“Energy and climate policy will be among President-elect Joe Biden’s top priorities when he steps into the Oval Office next year, but it could also prove one of his toughest challenges.*

*“President Trump has been a champion of traditional energy industries such as coal and oil. Mr. Biden wants to supercharge a transition to cleaner energy sources and has said reversing several Trump administration rollbacks of regulations aimed at combating climate change is a ‘Day 1’ priority.*

*“Mr. Biden’s presidential authority gives him the power to move quickly. He can order the U.S. back into the Paris climate accord, end a dispute with California on its tougher tailpipe-emission rules and work with it on a national standard, and slow or halt oil leasing on federal lands. He has promised to do all of these things.*

*“‘President-elect Biden looks forward to implementing his plans to tackle climate change while creating millions of good-paying, union jobs—which not only earned unprecedented support from climate activists, environmental justice leaders, and labor leaders, but also helped deliver a historic victory,’ Biden spokesman Matt Hill said Monday.*

*“Mr. Biden’s biggest ambitions, however, will require help. He has proposed a \$2 trillion overhaul for energy and transportation infrastructure as a way to address both climate change and the coronavirus pandemic’s economic downturn. That would need support from Congress, and lobbyists and analysts expect Republicans will block many of his requests if they maintain Senate control.”*

After a brief discussion of what may happen if the Republicans retain control of the Senate, the reporter continues:



*“Lobbyists and analysts expect more modest, compromised plans. If a divided Congress does pass an economic stimulus package to help people through the pandemic, it is much less likely to be laden with energy and climate projects than if Democrats had commanding control of Congress, they said.*

*“Concerned by Republican success in many down-ballot races, Congressional Democrats are pushing the Biden team to take more moderate positions and avoid policies that might seem punitive toward the oil industry, according to a person familiar with the talks. They will, however, make a big push on energy-infrastructure spending, believing Republicans will be loath to vote against it.*

*“‘Realistically, to get something that is really game changing, we need to get some legislation,’ said former Senate Majority Leader Harry Reid, who represented Nevada as a Democrat. ‘All the eyes of the country are going to be on the Republicans in the Senate.’*

*“Before inauguration, lobbyists and environmentalists are watching for early signals about Mr. Biden’s direction on climate—how moderate or radical he might turn—through his appointments to his transition team and eventually to federal agencies.*

*“Some expect Mr. Biden may devote a White House role to overseeing climate policy across his administration. And some advisers, including former Democratic presidential rival Tom Steyer, are pushing to ensure every cabinet secretary gives priority to measures to slow climate change.*

*“Mr. Biden’s campaign has already signaled it wants to avoid having former ‘leaders at fossil fuel...companies’ serve on his transition team. But several energy experts from Mr. Biden’s inner circle and the Obama administration have ties to the industry, including Amos Hochstein, a former executive at the gas exporter Tellurian Inc., and former Energy Secretary Ernest Moniz, a board member at utility Southern Co.*

*“It is a minefield Mr. Biden tried to navigate with nuance while on the campaign trail. He has promised a transition away from oil, saying it benefits the economy for the U.S. to become a leader in clean-energy businesses and to try avoiding the worst of climate change. But he also has said that transition shouldn’t happen so quickly that it risks further decimating a workforce now in the middle of a pandemic-fueled slump.*

*“That stance is in part shaped by unions, which he courted to recapture battleground states such as Pennsylvania, Michigan and Wisconsin where working-class voters scared by past environmental policies had drifted toward Republicans and Mr. Trump. Those unions are likely to remain a central force as the Biden administration and its energy policies take shape.*

*“The Biden transition team’s webpage, published late last week, makes climate one of four priorities and calls its response ‘The Biden-Harris plan to create union jobs by tackling the climate crisis.’*

*“It is that attention to those workers and their jobs that brought those very states—and, with them, the presidency—back to Democrats, said Lonnie Stephenson, a Biden climate adviser and international president of the International Brotherhood of Electrical Workers.*

*“We do have an administration that we believe will listen to our concerns,’ Mr. Stephenson said. ‘The fossil fuel industry has done a lot to ensure a greener environment as well. Sometimes they don’t get credit for what they have done.’*

*“Unions and environmentalists are two important constituencies for Mr. Biden, but the two groups are often at odds.*

*“Environmental groups have long sought to block pipelines as a way to limit the impact of the oil industry on climate change. Unions support them as a source of jobs and have pressured the Biden team not to stand in their way.*

*“Mr. Biden’s campaign has already said that he would revoke a permit for the operation of Keystone XL, a long-delayed pipeline that would bring oil from Canada to the Midwest. The Dakota Access crude pipeline also is at risk with a key federal permit in legal limbo.*

*“Court cases are also pending on the country’s primary rules for controlling the greenhouse-gas emissions that cause climate change, creating the potential for more influential decisions from the president-elect.*

*“The Obama administration was the first to set national limits on those emissions from power plants, cars and trucks, and oil and gas producers, but the Trump administration eased or eliminated all of them. All those Trump rollbacks are still in limbo under legal challenge from Democrat-led states and environmental groups.*

*“Analysts and legal experts expect a Biden administration would have its lawyers ask the courts to halt those cases and give it time to reconsider those rules.*

*“His campaign has said the priorities for his first day as president would be to revive some of these rules and set even more stringent requirements—namely on methane-emissions limits for the oil-and-gas industry, and fuel-economy standards for new cars and trucks.*

*“Many businesses and institutional investors have swung hard in recent years to support efforts to address climate change with low-emissions energy. Those private-sector investments trends are likely to continue anyway, but can grow stronger with a president who doesn’t oppose them, environmentalists and executives said.*

*“‘Investors are always looking for signals,’ said Michael Polsky, founder and chief executive of Invenergy LLC, which develops and operates clean-energy projects. ‘The certainty is always better.’”*

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