## Treatise/Reality Check on Climate Change, Global Warming, Renewable Fuels, Green New Deal

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### Abstract:

Hydrocarbons are environmentally safe and can carry the energy load in the world, now and for centuries to come. The Green New Deal and Biden's Energy 2020 Plan ignore the past failures in green energy and want to double down on those failures. These plans, if implemented, would take away our prosperity as a nation and raise family energy costs to unaffordable levels.

Earth day was first held in 1970, and their sensationalistic predictions of the planet's demise did not happen. False predictions followed that were tied to fundraising efforts of multimillion-dollar environmental firms. Current environmental claims that the world will end in 12 to 30 years if temperatures are not limited to a 1-1/2 degree increase. Since the track record for the environmental movement has not been good should they be believed today? In the evolution of humans, the warmer periods have been prosperous and colder periods harsh and full of disease. The effects of CO2 on climate change is grossly overstated by models because CO2 is one of the weakest greenhouse gasses. The earth is 40 percent greener today thanks to increasing CO2 which is plant food.

Renewables are not renewable, and they are not environmentally friendly. Wind and solar only contribute 3.6% of total fuel in the United States and less than 2% in the rest of the world. This small amount of contribution is after decades of massive monetary effort to make wind and solar a significant part of the energy budget.

## **Introduction**:

I believe that the climate of the earth has always been changing. The evidence suggests a small amount of global warming is taking place, but I do not think it is a big enough problem to call for any action. In fact, I will share many positives of this "subtle global warming ". Some will immediately say climate science is settled science and call me a non-believer or a climate denier. I will address all these issues and more.

Scientific method is defined as a method of procedure that has characterized natural science since the 17th century, consisting in systematic observation, measurement, and experiment, and the formulation, testing, and modification of hypotheses. Criticism is the backbone of the scientific method. I believe in the "scientific method and that Science is never settled". If someone says science is settled, they are not a true scientist.

I often hear "Gravity is settled science", but is it? Newton's Law of Gravity was generally accepted until it was superseded by Einstein's theory of General Relativity several hundred years later. Einstein himself was ignored for decades after publishing, but over time, his theories were generally accepted.

Today there are emerging questions among space time physicists about the general theory breaking down in the future as well. Questions about the dark matter required to exist by general relativity gives pause to many physicists that wonder if dark matter even exists at all. Einstein's theories, like Newton's, may be changed in the future.

Wegener in 1912 proposed Continental Drift as the explanation for the puzzle like fit of the continents. This led to fifty plus years of condemnation of the concept by physicists that calculated that the continental plates would crumble in place and that it was impossible. The physicists were king in those days developing rockets, nuclear energy etc. and Wegener was ridiculed. Ironically, it was physicists who ultimately proved plate tectonics. Using age dating and pole shifting magnetics, they observed sea floor spreading in the Atlantic Ocean. Sometimes it just takes persistence and an alternative view to let the scientific method work once again.

## **Organization of Topics**

The following seven topics will be addressed in this treatise in detail with the respective backup data to substantiate all claims included in a later section. This will provide the Reality Check on climate change, global warming, renewable fuels, and the Green New Deal.

## <u>Part One</u>: A review of the key environmental false predictions over the last five decades and current claims of the effects of global warming.

- 16 famous false predictions 1970 during first Earth Day are listed.
- These familiar sounding false predictions are still going on today.
- Green alarmism is a big money business that require doomsday predictions for fund raising.
- The world will not end in 12 years as the NGD folks have claimed.
- Hurricanes are not increasing due to Global Warming despite the claims.
- Forest fires in the US are not increasing despite the claims.
- Sea level rise examples are exaggerated and confused with naturally sinking deltas around the world.
- Tornadoes are not more frequent and more powerful due to climate change as claimed.
- Antarctic glaciers are not melting due to warming ocean currents as climate scientists propose it is caused by geothermal /volcanic activity.
- The Arctic Ice melt has a similar volcanic rift geothermal explanation.
- El Niño warming and La Niña cooling events are attributed to global warming with no evidence other than random association.
- Al Gore's demise of the Polar bears in the Arctic did not happen either they are thriving with estimated populations now 25,000 plus.

## <u>Part Two</u>: An overview of global warming modeling predictions of climate change and CO2 roles in climate both positives and negatives.

- Global warming is occurring but not our biggest problem in fact the positives of CO2 increases may outweigh any negatives.
- All models are wrong some are useful Occam's Razor. The earth's climate I believe are too complex to be accurately modeled with today's technology and it is ripe with bias input creating biased output.
- Balloon and Satellite data sets are the gold standard in climate measurement because they do not have the urban heat island effect. We only have about 40 years of satellite.
- CO2 is plant food and a good thing.
- According to NASA the world has greened up to 40% over last 40 years.
- Crop yields, thanks to CO2, increases have kept up with population growth which is our real problem as the world population grew from 3.7 billion in 1970 to 7.8 billion in 2020 and estimated 9.5 billion by 2050 and likely 12 billion by 2100.
- CO2 in last interglacial periods was 180 PPM and falling in the last millions of years and dangerously close to plant extinction at about 150 PPM due to dysfunctional photosynthesis.
- The return of continental glaciation via Milankovitch planetary cycles is now beginning and profound cooling will take place over the next 80,000 years. The earth is headed into an orbit where it will be further from the sun more often and tilted such that winter is reinforced over summer.
- CO2 at 400 plus PPM may slow the full advance of mile thick ice sheets as far south as Long Island preventing what would be the biggest disaster in modern history.
- CO2 is optimal for plants at 1200 PPM and why it is pumped into green houses at night and optimum for humans as well.

- Urban Heat Island effect vs temperature of the earth is best measured by satellite data of the oceans that we have only been gathering for some 40 years and shows much lower warming than land-based data which has issues with urban heat island effect.
- CO2 is the weakest of all greenhouse gasses.
- Water vapor is the strongest estimated at 60% to 80% depending on the source.
- In 2018 emissions, CO2 is only about one percent (1%) of the greenhouse gas problem. Methane, Nitrous Oxide and fluorine gasses used in air conditioning refrigerants are the primary incremental pollutants of today's atmosphere.
- CO2 is not linear in respect to temperature. Therefore, if it took 200 PPM to raise temperature 1 degree it would take 400 to raise it another degree and 800 PPM to raise it another degree. So, CO2 is a declining problem if a problem at all.
- CO2 does not even behave properly in the recent temperature history. The great decouple from 1940 to 1978 where CO2 steadily climbs, and global temperatures steadily fell.
- The US CO2 emissions have been falling for decades due to declining coal and rising natural gas.
- China and India combined build the equivalent of one new coal fired electric plant every day.
- Most historical temperature data is based on proxies that are not 100% accurate.
- Northwest Passage over Arctic opening for very efficient transport across the globe earlier due to warming and ice reducing.

# <u>Part Three</u>: How mankind has thrived in warm periods and done poorly in colder periods.

- A slowly warming planet is better than an abruptly cooling one. More land becomes available in the northern and southern latitudes for agricultural purposes.
- Humans have thrived historically in the warmer periods of our history and in contrast became stressed during colder periods.
- There have prolonged periods in medieval times referred to BBC as the little Ice Age. These cold periods were difficult times with disease and poor food supplies.
- Volcanic winter events are also difficult cold periods in our human history.

# <u>Part Four</u>: What renewables and other alternative fuels contribute to the energy budget.

- Wind and solar account for only 3.6% of the energy consumed in the United States despite all the money spent on developing Wind and Solar.
- Wind and solar worldwide is less than 2% of all global energy produced.
- Wind and Solar are not green nor are they renewable.
- Wind and solar are not dependable for obvious reasons because the sun does not always shine, and the wind does not always blow.
- Many of the ideal wind farm sites have already been developed.
- Solar is efficient in a limited number of Southwestern states.
- Battery storage is impractical, expensive and has about a ten-year shelf-life. Iridium mining is also an environmental disaster around the world.
- Electric cars run on electricity 80% produced by burning hydrocarbons.
- Biomass is not wood chips but full logging operations clear cutting forests that would be consuming CO2.
- Hydropower is not renewable either and is on a decline in the US. Due to environmental protests no dams are being built anymore.
- Nuclear is also on the decline, now 19% of electricity in the United States due to environmental protest despite being the cleanest in air emissions of all generators.
- All the above energy sources require hydrocarbons as a backup with natural gas co-gen as it can be turned on and off instantly.
- Migratory bird populations are down by the millions in the United States. The renewable industry has a permit to kill up to 4500 bald eagles a year because that is what happens.

## <u>Part Five</u>: The United States and other world economies run on hydrocarbon fuels. There is no current technology available to feasibly replace fossil fuels in the next 30 years.

- United States is 80% hydrocarbon powered. Some things just do not work with renewables such as airplanes.
- Renewables contribute 19% of electricity in US and electricity is 37% of total energy. Renewables are then 7% of total energy in US.
- 5% of electricity generated is lost during transport due to friction/heat loss.
- Natural Gas, Petroleum and Coal is 80% of the United States total energy budget.
- Crude oil production in the United States has climbed from 5 million barrels a day in 2009; to a high in February 2020 of 13 million barrels a day and the United States became the number one producer in the world.
- At pre-COVID-19 pricing of \$60 per barrel of oil was worth \$780 million dollars a day \$284 billion per year added to the United States economy.
- The United States recently became a net oil exporter at approximately 1.2 million barrels a day MMBOD.
- Natural gas production has also climbed in the United States from about 65 Billion cubic feet a day BCFPD to current 99 BCFPD.
- The United States now exports about 9 BCFD of natural gas a day to over 39 different countries.
- Natural gas production valued at \$2.00 MCF at 99 BCFD is \$198 million per day or \$72.27 Billion a year into our United States economy.
- Oil and Natural Gas adds \$356 billion a year impact on the United States economy, and activists want to stop it?

- Is there any wonder why the stock market and economy before COVID-19 was doing so well? It is energy independence for the United States!
- The United States used to import 12 million barrels a day and now it is a net exporter of oil. Importing oil was at one time was 65% of our trade deficit as a country!

## <u>Part Six</u>: The Green New Deal or Biden's 2020 Energy Plan would bankrupt the country while skyrocketing individual family energy costs and not solve anything.

- The Mega Trillion plan called the *Green New Deal* would ruin the country, sky rocket energy costs to consumers while purportedly trying to solve *"Climate Change"* which really isn't much of a problem because it brings some very important positives like greening of the planet, higher food production, and protection against cold.
- The world will not end in 12 years as a young teenage girl named Greta has claimed. "The house" is **not** on fire.
- Apocalypse pending is what I call it. The environmental business are huge businesses and want you to donate. If there is no "emergency", no short-term "threat" these businesses risk losing your share of giving.
- In 2018, Greenpeace had \$84 million a year in annual revenue and the Sierra Club had \$141 million in annual revenue; and in 2019 the Environmental Defense Fund had \$203 million in annual revenue.
- Ask Michael Moore about the "*Planet of the Humans*" documentary where he puts it simply: "if friends can't tell friends this renewable thing isn't working than who can?"
- Schellenberger the once acclaimed *Time Magazine* Environmentalist of the Year sent an apology out on *Forbes* for lying to the world about the Environmental issues for 30 Years.
- Climate scientist Dr. Mototaka with MIT credentials breaks rank: "our models are Mickey-Mouse mockeries of the real world".

## <u>Part Seven</u>: Production of hydrocarbons are environmentally safe and adequately available to run the world for centuries. In contrast, renewables are not renewable or environmentally friendly.

- Fracking is safe. The fluid used is 99% water with some friction reducers like dish soap and the rest is tiny particles of sand.
- What about the movie "Gasland" where they light a fire coming out of the sink! They accused an oil company of ruining their water. Gasland was a fraudulent claim that the family lost in court. The gas in the water well was naturally occurring Biogenic gas and not related to oil and gas operations.
- Similarly, a Rancher west of Fort Worth, Texas claimed that his new water wells were contaminated with natural gas. Range Resources had been operating wells in the area and was sued. Range Resources proved the gas had a different chemistry and the natural gas was coming from natural sources.
- Fracking is not new; it was first done by Amoco in 1948 and has been used safely since then numerous times!
- So, what has changed? Horizontal drilling is what is new, and we now drill several miles sideways and complete 10 or 20 equivalent wells at a time.
- Fracking was ruled safe after major inquiries by the EPA and various oil field regulatory agencies decades ago but apparently not everyone got the memo!
- Pipelines protests are the rage these days: but what if you knew that the oil transport alternative is by railway and that is much more prone to spills and accidents. By protesting the pipeline, the net effect is exposing more risk to the environment, not less.
- Many protestors are not ordinary protestors but paid participants with extra money for being violent, getting arrested.
  - The attempts to take down the oil and gas operations in this country are dangerous to our economy and future standard of living.

- I am proud of the resilience of the Domestic oil and gas business and without it the country would be in bad shape today.
- The climate movement is starting to come apart being exposed from their very own like Moore and Shellenburger with no doubt more to come. Global Warming will be looked back in history as one of the biggest exaggerations of our time.
- Biden's Climate Plan Is Serious—About Green Pork If the price is right— \$2 trillion—greens will overlook his apostasy on fracking and nuclear power.
- Former President Barack Obama advocated for ramping up the use of natural gas as he did in more than one of his State of the Union addresses.
- President Obama's former Secretary of Energy, Dr Ernest Moniz a nuclear physicist, continues to advocate for Natural Gas as the main solution to climate change.

"Many a small thing has been made large by the right kind of advertising" --Mark Twain

# <u>Part One</u>: A review of the key environmental false predictions over the last five decades and current claims of the effects of global warming are discussed and debunked.

#### "Predictions have been wrong from the environmental for decades, but we somehow promote as gospel and believe them anyway despite a failing track record."

The following are 16 of 18 famous false predictions in 1970 during first Earth Day:

- Harvard biologist George Wald estimated that "civilization will end within 15 or 30 years unless immediate action is taken against problems facing mankind."
- Population will inevitably and completely outstrip whatever small increases in food supplies we make," Paul Ehrlich confidently declared in the April 1970 issue of *Mademoiselle*. "The death rate will increase until at least 100-200 million people per year will be starving to death during the next ten years."
- "Most of the people who are going to die in the greatest cataclysm in the history of man have already been born," wrote Paul Ehrlich in a 1969 essay titled "*Eco-Catastrophe*! "By...[1975] some experts feel that food shortages will have escalated the present level of world hunger and starvation into famines of unbelievable proportions. Other experts, more optimistic, think the ultimate food-population collision will not occur until the decade of the 1980s."
- Ehrlich sketched out his most alarmist scenario for the 1970 Earth Day issue of *The Progressive*, assuring readers that between 1980 and 1989, some 4 billion people, including 65 million Americans, would perish in the "Great Die-Off."
- "It is already too late to avoid mass starvation," declared Denis Hayes, the chief organizer for Earth Day, in the Spring 1970 issue of *The Living Wilderness*.
- Peter Gunter, a North Texas State University professor, wrote in 1970, "Demographers agree almost unanimously on the following grim timetable: by 1975 widespread famines will begin in India; these will spread by 1990 to include all of India, Pakistan, China and the Near East, Africa. By the year 2000, or conceivably sooner, South and Central America will exist under famine conditions....By the year 2000, thirty years from now, the entire world, with the exception of Western Europe, North America, and Australia, will be in famine."
- In January 1970, *Life* reported, "Scientists have solid experimental and theoretical evidence to support...the following predictions: In a decade, urban dwellers will have to wear gas masks to survive air pollution...by 1985 air pollution will have reduced the amount of sunlight reaching earth by one half...."
- Ecologist Kenneth Watt told *Time* that, "At the present rate of nitrogen buildup,

it's only a matter of time before light will be filtered out of the atmosphere and none of our land will be usable."

- Barry Commoner predicted that decaying organic pollutants would use up all of the oxygen in America's rivers, causing freshwater fish to suffocate.
- Paul Ehrlich chimed in, predicting in 1970 that "air pollution...is certainly going to take hundreds of thousands of lives in the next few years alone." Ehrlich sketched a scenario in which 200,000 Americans would die in 1973 during "smog disasters" in New York and Los Angeles.
- Paul Ehrlich warned in the May 1970 issue of *Audubon* that DDT and other chlorinated hydrocarbons "may have substantially reduced the life expectancy of people born since 1945." Ehrlich warned that Americans born since 1946...now had a life expectancy of only 49 years, and he predicted that if current patterns continued this expectancy would reach 42 years by 1980, when it might level out. (Note: According to the most recent CDC report, life expectancy in the US is 78.8 years).
- Ecologist Kenneth Watt declared, "By the year 2000, if present trends continue, we will be using up crude oil at such a rate...that there won't be any more crude oil. You'll drive up to the pump and say, 'Fill 'er up, buddy,' and he'll say, 'I am very sorry, there isn't any."
- Harrison Brown, a scientist at the National Academy of Sciences, published a chart in *Scientific American* that looked at metal reserves and estimated the humanity would totally run out of copper shortly after 2000. Lead, zinc, tin, gold, and silver would be gone before 1990.
- Sen. Gaylord Nelson wrote in *Look* that, "Dr. S. Dillon Ripley, secretary of the Smithsonian Institute, believes that in 25 years, somewhere between 75 and 80 percent of all the species of living animals will be extinct."
- In 1975, Paul Ehrlich predicted that "since more than nine-tenths of the original tropical rainforests will be removed in most areas within the next 30 years or so, it is expected that half of the organisms in these areas will vanish with it."
- Kenneth Watt warned about a pending Ice Age in a speech. "The world has been chilling sharply for about twenty years," he declared. "If present trends continue, the world will be about four degrees colder for the global mean temperature in 1990, but eleven degrees colder in the year 2000. This is about twice what it would take to put us into an ice age." <sup>[1]</sup>

If this sounds familiar it is because false predictions are still going on today.

The following was printed in 1989<sup>[2]</sup>:

| U.N. Pred          | licts Disaster if Global Warming Not Checked                                                                         |
|--------------------|----------------------------------------------------------------------------------------------------------------------|
| PETER JAMES SPIELM | ANN June 29, 1989                                                                                                    |
|                    |                                                                                                                      |
|                    | UNITED NATIONS (AP) _ A senior U.N. environmental official says entire nations could be                              |
| ( Click to copy)   | wiped off the face of the Earth by rising sea levels if the global warming trend is not reversed b<br>the year 2000. |
|                    | Coastal flooding and crop failures would create an exodus of "eco- refugees,' ' threatening                          |
| RELATED TOPICS     | political chaos, said Noel Brown, director of the New York office of the U.N. Environment                            |
| A                  | Program, or UNEP.                                                                                                    |

- A. In an Article entitled: <u>The Point of No Return: Climate Change Nightmares Are</u> <u>Already Here</u>. Eric Holthaus stated "The worst predicted impacts of climate change are starting to happen — and much faster than climate scientists expected".<sup>[3]</sup>
- B. In a June, 2016 Article entitled "Scientists warn of 'global climate emergency' over shifting jet stream," Gabriel Samuels notes that <u>two</u> environmentalist declared this emergency after the Northern hemisphere jet stream was found to have crossed the equator, bringing "unprecedented" changes to the world's weather patterns. However, Samuels notes that "other scientists dismissed their claims, with one describing their concern over wind crossing the equator as "total nonsense".<sup>[4]</sup>

Obviously, this did not happen.

- C. In an interview publish in *The Guardian*, Scientist Peter Wadham stated that he believes the summer ice cover at the north pole is about to disappear, triggering even more rapid global warming.<sup>[5]</sup>
- D. A June 4, 2019 report warned there is an existential risk to humanity from the climate crisis within the coming decades, and a "high likelihood of human civilization coming to an end" over the next three decades unless urgent action is taken. <sup>[6]</sup>

#### **Earth Temperature:**

Climate has always been changing on the earth. Recent studies have shown that during the Roman period the world was 2 1/2 degrees warmer than today. Today the alarmists predict the end of the world if we can't stop warming at 2 degrees! <sup>[7]</sup>



The study identifies the Roman period (1-500 AC) as the warmest period of the last 2,000 years. Map A shows the central-western Mediterranean Sea. Red triangle shows the location of the sample studied, while the red circles are previously found marine records used for the comparison. Map B shows the Sicily Channel featuring surface oceanographic circulation and sample location. Black lines follow the path of surface water circulation

#### **ENVIRONMENT**:

The world will not end in 12 years as the New Green Deal folks have claimed.

*"Our house is on fire': Greta Thunberg, 16, urges leaders to act on climate"* --Greta Thunberg



Swedish school strike activist demands economists tackle runaway global warming. In her January 25 speech at Davos she claimed:

"Our house is on fire. I am here to say, our house is on fire."

According to the IPCC (Intergovernmental Panel on Climate Change), we are less than 12 years away from not being able to undo our mistakes. In that time, unprecedented changes in all aspects of society need to have taken place, including a reduction of our CO2 emissions by at least 50%."<sup>[8]</sup>

• Green alarmism is a big money business that require doomsday predictions for fund raising.

Apocalypse pending is what I call it. There are huge businesses in the environmental business that want you to donate. If there is no emergency, no short-term threat, they do not get your share of giving. Published financial reports reflect the following:

• In 2018 Greenpeace reported \$84 million a year annual revenue <sup>[9]</sup> and Sierra Club reported \$141 million in annual revenue <sup>[10]</sup> and the Environmental Defense Fund reported \$203 million annual income in 2019. <sup>[11]</sup>

Further, many Billionaires made their fortunes by trying to stop climate change.<sup>[12]</sup>

"The future ain't what it used to be" --Yogi Berra

#### Hurricanes:

• Hurricanes are not increasing due to Global Warming despite the claims.

The increase is likely caused by enhanced jet stream activity which is amplified by stronger contrasts between warm and cold that sheers off the tops of building storms more often before they can get bigger. The problem is that we are overbuilding in the dangerous coastlines which has been enabled by government flood insurance. Building in these danger zones put more people in harm's way. In the last hurricane in the Carolina's that caused excessive flooding 450,000 home claims were made for FEMA flood insurance where homes were built on flood plains. <sup>[13, 14]</sup>

#### **Forest Fires:**

• Forest fires in the US are not increasing despite the claims. <sup>[15,16,17,18]</sup>

In a study conducted to reconstruct global fire history for the 20th and early 21st centuries, researchers reconstructed a specified data set of the global burned area which was based on a process-based fire model and made comparisons to satellite observations. Contributing factors evaluated in the study included human activities, climate, and atmospheric components to global and regional burned areas as well as the "first" attempt to address the importance of elevated CO2 and nitrogen deposition to fire regimes. Human activities was identified in the experiments as the dominant factor in determining the declining trend of burned area in the tropics and extra tropics, and climate variation as the primary factor in shaping the decadal variation of burned area thigh latitudes.

The following graph indicates there is a global fire trend decline from 1900 to 2007. [19]



#### **<u>Rising Sea Levels</u>**:

• Sea level rise examples are exaggerated and confused with naturally sinking deltas around the world.

Rivers have been dammed up and levees built cutting off sediment supply to Deltas and groundwater has been over pumped. Tulane studied the Mississippi delta over 40 years and found that the deltas was sinking on average 9 mm a year uniformly due to natural sinking into the sea. In areas like New Orleans the delta is sinking as much as 30 mm a year. This is 3 to 10 times the average estimate of sea level rise is 3 mm per year. The same thing is happening in deltas all over the world confused with global warming sea level rise. <sup>[20]</sup>

Sea level rise is not unprecedented like climate alarmists want you to believe. In the last glacial low stand 18,000 years ago sea levels were 370 feet lower than today and have risen an 112,776 mm since. That is 6 mm a year average sea level rise per year. Sea levels have historically been 30 feet higher when past glaciers have melted further back than today. The city of Miami is 15 feet of elevation above sea level thanks to higher sea levels that deposited the Miami Oolite Formation during the Pleistocene high stand when sea levels were 30 feet higher than today. <sup>[21]</sup>

In the last 800,000 years the world has had 8 glacial cycles with sea level lowering slowly as ice advances and rising rapidly during ice melt and glacial retreat. These are due to planetary cycles called Milankovitch Cycles that reinforce winter during glacial advances and reinforce summer during glacial melt. The melts happen quickly due to methane being released from under the Ice that has been trapped by decaying vegetation which rapidly raises temperatures because Methane is twenty-eight times

#### more of a powerful Greenhouse gas than CO2.

#### R. M. Spratt and L. E. Lisiecki: A Late Pleistocene sea level stack



**Figure 2. (a)** Long and short sea level stacks compared to the LR04 benthic  $\delta^{18}O_c$  stack (Lisiecki and Raymo, 2005). (b) Scaled PC1 compared to unweighted mean of individual records. Scaled PC1 is comprised of short PC1 (0–431 ka) pasted to long PC1 (431–798 ka). (c) Scaled PC1 compared with percentile levels from the bootstrap results, which are also plotted as a composite of the short (0–431 ka) and long (431–798 ka) time windows.

#### **Tornadoes:**

Tornadoes are not more frequent and more powerful due to climate change as claimed; it is just they are more visible due to storm chasing and population density. <sup>[22]</sup>



#### **Glaciers**:

• Antarctic Glaciers are not melting due to warming ocean currents as climate scientists propose; it is caused by geothermal /volcanic activity.

The fact that warming currents do not exist is proven by temperature buoys that show the warming waters are highest near the melting glacial front. NASA's Operation Ice Bridge flew radars over both poles for the last ten years and discovered the second largest volcanic rift basin in the world with 180 subglacial volcanoes.



There are huge lakes and rivers sub glacial observed. This cannot happen from ocean currents but only can be caused by geothermal volcanic related energy.



The western third of Antarctica is melting due to high geothermal heat flow below the ice where this rift is located, and the rest of Antarctica is growing in ice mass. In fact, until about five years ago they offset each other in volume and there was no net melt.



#### Western third of Antarctica volcanic rift zone:



The recent discovery of 91 volcanoes under the ice (Guardian Weekly 18.8) corresponds with these areas of West Antarctic ice loss

#### By Carol Rasmussen, NASA's Earth Science News Team Study Bolsters Theory of Heat Source Under West Antarctica

A new NASA study adds evidence that a geothermal heat source called a "mantle plume" lies deep below Antarctica's Marie Byrd Land, explaining some of the melting that creates lakes and rivers under the ice sheet. <sup>[23, 24]</sup>

A newly discovered Volcano found buried beneath a thick layer of ice in Antarctica could speed up ice loss and raise global sea levels when it erupts, scientists say. This paper uses HE-3 isotopes to prove it is Volcanic heat melting West Antarctica's Pine Island Glacier and that it is not thinning due to climate change<sup>.[25, 26]</sup>

• The Arctic Ice melt has a similar volcanic rift geothermal explanation.

Antarctic is the southern extension of the Mid-Atlantic volcanic rift zone and the northern extension of the Mid-Atlantic volcanic rift zone is under the Arctic. Less is known about this due to more difficult access but look at Iceland just to the south which is a volcanic island and has tremendous geothermal energy resources and active volcanoes. That system is well documented and mapped on the sea floor projecting into the Arctic. <sup>[27, 28]</sup>





#### El Niño and La Niña:

• El Niño warming and La Niña cooling events are attributed to global warming with no evidence other than random association.

El Niño (warming) and La Niña (cooling) are complex weather patterns resulting from variations in ocean temperatures in the Equatorial Pacific. If the planet were constantly warming, logic suggests we would have predominately El Niño events. El Niño and La Niña episodes typically last 9 to 12 months, but some prolonged events may last for years. While their frequency can be quite irregular, El Niño and La Niña events occur on average every two to seven years. Typically, El Niño occurs more frequently than La Niña.<sup>[29]</sup>

There are geothermal sources in subduction zones thought to be possible causes of the heat up El Niño events just west in the pacific and correlations to large earthquakes and volcanic activity prior to El Niño events. These have been demonstrated to have time spatial relationships in El Nino heating events. The flow across the Pacific there is west to east. The lower chart shows redder which is hotter. <sup>[30]</sup>



#### **Polar Bears – Extinction?**

• Al Gore's demise of the Polar bears in the Arctic did not happen, they are thriving with an estimated population of now 25,000 plus. <sup>[31, 32, 33, 132]</sup>



On July 21, 2020, the *New York Time* published an Article written by Henry Fountain where he claimed through scientists that "the polar bears could become nearly extinct by the end of the century as a result of shrinking sea ice in the Arctic if global warming continues unabated". <sup>[34]</sup>

In an abstract published on July 20, 2020, the authors manipulated data to fit their own desired results. The authors are not researchers of polar bears themselves like the articles posted above about but modelers of other researchers' data:

#### Abstract:

Polar bears (*Ursus maritimus*) require sea ice for capturing seals and are expected to decline range-wide as global warming and sea-ice loss continue. Estimating when different subpopulations will likely begin to decline has not been possible to date because data linking ice availability to demographic performance are unavailable for most subpopulations and unobtainable a priori for the projected but yet-to-be-observed low ice extremes. Here, we establish the likely nature, timing and order of future demographic impacts by estimating the threshold numbers of days that polar bears can fast before cub

recruitment and/or adult survival are impacted and decline rapidly. Intersecting these fasting impact thresholds with projected numbers of ice-free days, estimated from a large ensemble of an Earth system model, reveals when demographic impacts will likely occur in different subpopulations across the Arctic. Our model captures demographic trends observed during 1979–2016, showing that recruitment and survival impact thresholds may already have been exceeded in some subpopulations. It also suggests that, with high greenhouse gas emissions, steeply declining reproduction and survival will jeopardize the persistence of all but a few high-Arctic subpopulations by 2100. Moderate emissions mitigation prolongs persistence but is unlikely to prevent some subpopulation extirpations within this century.

This article is all about making something up with the use of models! Look at the admission in Part 1, 2 of the Abstract they admit to a striking "data <u>linking ice</u> <u>availability to demographic performance are unavailable for most sub populations</u>" and further say "<u>Yet to be observed low ice extremes</u>." <sup>[35]</sup>

So, these researchers have no data, no observed ice loss, yet they guessed that the future is bleak for polar bears and made outrageous predictions of their demise by 2021. Their conclusions are illogical, when real studies of real polar bears show they are thriving, and populations have increased! <sup>[35]</sup>

"Our current lack of understanding of the Earth's climate system does not allow us to determine reliably the magnitude of climate change that will be caused by anthropogenic CO<sub>2</sub> emissions, let alone whether this change will be for better or for worse." --Willie Soon, Astrophysicist Harvard -Smithsonian Center for Astro physics

## <u>Part Two</u>: An overview of global warming modeling predictions of climate change and CO2 roles in climate both positives and negatives.

- Global warming is occurring but not our biggest problem in fact the positives of CO2 increases may outweigh any negatives. <sup>[36]</sup>
- All models are wrong some are useful Occam's Razor. The earth's climate I believe are too complex to be accurately modeled with today's technology and it is ripe with bias input creating biased output. <sup>[37]</sup>

Models are overly complex such as the following model that was provided in an Article published on January 15, 2018 in *Carbon Brief* would show:

## Climate models

For decades scientists have been using **mathematical models** to help us learn more about the Earth's climate. Known as climate models, they are driven by the fundamental physics of the atmosphere and oceans, and the cycling of chemicals between living things and their environment. Over time they have increased in complexity, as separate components have merged to form **coupled systems**.



Graphic by Rosamund Pearce; based on the work of Dr Gavin Schmidt.

• Balloon and satellite temperature data sets are the gold standard in climate measurement because they do not have the urban heat island effect. We only have about 40 years of satellite data.

This data has only shown 0.3 degree rise or one-third the predicted temperature rises in the average of the models





Figure 1. A comparison of 32 climate models and observations. The observations are from weather balloon and satellite data. The two observational methods are independent of one another and support each other. The plot is after Dr. John Christy of the University of Alabama in Huntsville (Christy 2016).

- CO2 is plant food and a good thing. <sup>[39, 40]</sup>
- According to NASA the world has greened up to 40% over last 40 years. <sup>[41]</sup>



• Crop yields thanks to CO2 increases have kept up with population growth that is our real problem growing from 3.7 billion in 1970 to 7.8 billion in 2020 and 9.5 billion by 2050 and likely 12 billion by 2100. <sup>[42, 43, 44]</sup>

• CO2 in last interglacial periods was 180 PPM and falling in the last millions of years and dangerously close to plant extinction at about 150 PPM due to dysfunctional photosynthesis.



• The return of continental glaciation via Milankovitch planetary cycles is now beginning and profound cooling will take place over the next 80,000 years. The earth is headed into an orbit where it will be further from the sun more often and tilted such that winter is reinforced over summer.

The 20,000-year retreat of glacial ice sheets melts happen faster because of all the trapped vegetation converted to methane being released that is a feedback loop in warming that accelerates the melt back.

One of the questions to ponder over is that during the ice ages CO2 went up and down by 100 ppm and temperature by 8 deg C.

Post the Industrial Revolution CO2 has gone up by 127ppm and temperature by ~1 deg C.  $^{[45, 46]}$ 

This is another example of a poor correlation of CO2 to temperature.<sup>[47]</sup>



#### 6.4.1 Climate Forcings and Responses Over Glacial-Interglacial Cycles

Palaeoclimatic records document a sequence of glacial-interglacial cycles covering the last 740 kyr in ice cores (EPICA community members, 2004), and several million years in deep oceanic sediments (Lisiecki and Raymo, 2005) and loess (Ding et al., 2002). The last 430 kyr, which are the best documented, are characterised by 100-kyr glacial-interglacial cycles of very large amplitude, as well as large climate changes corresponding to other orbital periods (Hays et al., 1976; Box 6.1), and at millennial time scales (McManus et al., 2002; NorthGRIP, 2004). A minor proportion (20% on average) of each glacial-interglacial cycle was spent in the warm interglacial mode, which normally lasted for 10 to 30 kyr (Figure 6.3). There is evidence for longer interglacial periods between 430 and 740 ka, but these were apparently colder than the typical interglacials of the latest Quaternary (EPICA community members, 2004). The Holocene, the latest of these interglacials, extends to the present.



Figure 6.3. Variations of deuterium ( $\delta D$ ; black), a proxy for local temperature, and the atmospheric concentrations of the greenhouse gases CO<sub>2</sub> (red), CH<sub>4</sub> (blue), and nitrous oxide (N<sub>2</sub>O; green) derived from air trapped within ice cores from Antarctica and from recent atmospheric measurements (Petit et al., 1999; Indermühle et al., 2000; EPICA community members, 2004; Spahni et al., 2005; Siegenthaler et al., 2005, Siegenthaler et al., 2005, and the severe apparently colder than the typical interglacial warm periods. Interglacial periods also existed prior to 450 ka, but these were apparently colder than the typical interglacials of the latest Quaternary. The length of the current interglacial is not unusual in the context of the last 650 kyr. The stack of 57 globally distributed benthic  $\delta^{18}$ O marine records (dark grey), a proxy for global ice volume fluctuations (Lisiecki and Raymo, 2005), is displayed for comparison with the ice core data. Downward trends in the benthic  $\delta^{18}$ O curve reflect increasing ice volumes on land. Note that the shaded vertical bars are based on the ice core age model (EPICA community members, 2004), and that the marine record is plotted on its original time scale based on tuning to the orbital parameters (Lisiecki and Raymo, 2005). The stars and labels indicate atmospheric concentrations at year 2000.



Shows the pattern of temperature and ice volume changes associated with recent glacials and interglacials


#### 10,000 years and 9 warming periods remarkably similar to present-day warming (and all warmer)

Alley, R.B.. 2004. GISP2 Ice Core Temperature and Accumulation Data. IGBP PAGES/World Data Center for Paleoclimatology Data Contribution Series #2004-013. NOAA/NGDC Paleoclimatology Program, Boulder CO, USA.

<u>"Current Temp:</u> Box JE, Yang L, Bromwich DH, Bai L (2009) Greenland Ice Sheet Surface Air Temperature Variability: 1840–2007\*. American Meteorological Society, Journal of Climate Vol 22, pp 4029 - 4049



Preliminary results from a Smithsonian Institution project led by Scott Wing and Brian Huber, showing Earth's average surface temperature over the past 500 million years. For most of the time, global temperatures appear to have been too warm (red portions of line) for persistent polar ice caps. The most recent 50 million years are an exception. Image adapted from Smithsonian National Museum of Natural History. • CO2 at 400 plus PPM may slow the full advance of mile thick ice sheets as far south as Long Island preventing what would be the biggest disaster in modern history.



• CO2 is optimal for plants at 1200 PPM and why it is pumped into green houses at night. CO2 is also optimum for humans.

In the Apollo spacecraft, an alarm would go off when CO2 reached 4,000 PPM and in today's space shuttle, the trigger is 5,000 PPM. And, in submarines where crewmen may be on three-month missions, CO2 must reach 8,000 PPM before the alarm is activated.

. .

Greenhouse ideal at 1200 PPM CO2



Figure 1. The effect of carbon dioxide on net photosy

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Climate / Energy Treatise by:
Brown, Glen
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• Urban Heat Island effect vs temperature of the earth is best measured by satellite data of the oceans that we have only been gathering for some 40 years and shows much lower warming than land-based data which has issues with urban heat island effect.

70% of the world is covered in oceans and water has the highest specific heat capacity of all substances and should be the good standard of temperature. <sup>[48]</sup>

The following graph is a good example of Urban Heat Island effect. This is over 100 years of temperatures from two identical weather stations operated by the same university 30 miles apart in Las Cruces, New Mexico.

You will note that the top graph entitled: "Jornada" is in the nature preserve north of Las Cruces where temperatures have not changed at all. The second graph entitled: the "State University" is in the city of Las Cruces 100,000 population plus shows 5 degrees most of the increase in the last 50 years when the city doubled in size.



The point of the two graphs is that without the urban heating there is no warming at all!

- CO2 is the weakest of all greenhouse gasses.
- Water vapor is the strongest estimated at 60% to 80% depending on the source. <sup>[49]</sup>

In an article entitled "*The Water Vapor Feedback*" published in the *Yale Climate Connections* Zeke Hausfather stated: "Water vapor is one of the most important elements of the climate system. A greenhouse gas, like carbon dioxide, it represents around 80 percent of total greenhouse gas mass in the atmosphere and 90 percent of greenhouse gas volume." Hausfather further stated that, "Water vapor and clouds account for 66 to 85 percent of the greenhouse effect, compared to a range of 9 to 26 percent for CO2." <sup>[50]</sup>

In November of 2008, NASA posted a quote on its website from Eric Fetzer, an atmospheric scientist who works with AIRS data at NASA's Jet Propulsion Laboratory in Pasadena, California in which he said: "Water vapor is the big player in the atmosphere as far as climate is concerned." <sup>[51]</sup>

This is because Carbon Dioxide effects are limited to a narrow wavelength in red in graph below.



K are shown for reference. (Modified from Petty, 2006).

The relative potency of the CO2 gas to other gasses in present day atmosphere using standard Global Warming Potential values: <sup>[128]</sup>

Global warming potentials compare CO2 to other greenhouse gasses over a 100-year time frame. <sup>[129]</sup>

| Gas                             | Atmospheric Lifetime      | GWP         |
|---------------------------------|---------------------------|-------------|
| CO <sub>2</sub>                 | See footnote <sup>b</sup> | 1           |
| CH4 <sup>c</sup>                | 12                        | 25          |
| N <sub>2</sub> O                | 114                       | 298         |
| HFC-23                          | 270                       | 14,800      |
| HFC-32                          | 4.9                       | 675         |
| HFC-125                         | 29                        | 3,500       |
| HFC-134a                        | 14                        | 1,430       |
| HFC-143a                        | 52                        | 4,470       |
| HFC-227ea                       | 34.2                      | 3,220       |
| HFC-236fa                       | 240                       | 9,810       |
| CF <sub>4</sub>                 | 50,000                    | 7,390       |
| C <sub>2</sub> F <sub>6</sub>   | 10,000                    | 12,200      |
| C <sub>3</sub> F <sub>8</sub>   | 2,600                     | 8,830       |
| c-C <sub>4</sub> F <sub>8</sub> | 3,200                     | 10,300      |
| SF <sub>6</sub>                 | 3,200                     | 22,800      |
| NF <sub>3</sub>                 | 740                       | 17,200      |
| Other Fluorinated Gases         |                           | See Annex 6 |

Table 1-2: Global Warming Potentials and Atmospheric Lifetimes (Years)



## **Overview of Greenhouse Gas Emissions in 2018**

- <u>Carbon dioxide (CO2)</u>: Carbon dioxide enters the atmosphere through burning fossil fuels (coal, natural gas, and oil), solid waste, trees and other biological materials, and also as a result of certain chemical reactions (e.g., manufacture of cement). Carbon dioxide is removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle. <u>Methane (CH4)</u>: Methane is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills.
- <u>Nitrous oxide (N2O)</u>: Nitrous oxide is emitted during agricultural and industrial activities, combustion of fossil fuels and solid waste, as well as during treatment of wastewater.
- <u>Fluorinated gases</u>: Hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride are synthetic, powerful greenhouse gases that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for stratospheric <u>ozone-depleting substances</u> (e.g., chlorofluorocarbons, hydrochlorofluorocarbons, and halons). These gases are typically emitted in smaller quantities, but because they are potent greenhouse gases, they are sometimes referred to as High <u>Global Warming Potential</u> gases ("High GWP gases").
- Fluorinated gasses are all high GWP gasses and HFC from refrigerants is the largest of the Fluorinated gasses by volume at 78%.

# **KEY FIGURES**

| 1,430x       | 10-15%      | 29 years     | 5.6 billion  |
|--------------|-------------|--------------|--------------|
| The most     | Emissions   | HFCs         | The global   |
| abundant     | of HFCs are | remain in    | stock of air |
| HFC is       | growing at  | the          | conditioners |
| 1,430 times  | a rate of   | atmosphere   | in buildings |
| more         | 10-15% per  | for up to 29 | will grow to |
| damaging     | year        | years        | 5.6 billion  |
| to the       |             |              | by 2050,     |
| climate      |             |              | which        |
| than carbon  |             |              | amounts to   |
| dioxide per  |             |              | 10 new units |
| unit of mass |             |              | sold every   |
|              |             |              | second for   |
|              |             |              | the next 30  |
|              |             |              | years        |

#### Quantities (Net Supply) of GHGs Reported

(Quantities are presented in million metric tons per year of net  $CO_2e^a$ )

| Gas Type                                                                   | 2010             | 2011             | 2012             | 2013             | 2014             | 2015  | 2016             | 2017             |
|----------------------------------------------------------------------------|------------------|------------------|------------------|------------------|------------------|-------|------------------|------------------|
| Saturated<br>HFCs in<br>bulk,<br>excluding<br>HFC-23                       | 235 <sup>c</sup> | 241 <sup>c</sup> | 227 <sup>c</sup> | 278 <sup>c</sup> | 254 <sup>c</sup> | 264   | 240 <sup>d</sup> | 285 <sup>e</sup> |
| Sulfur<br>hexafluoride<br>(SF <sub>6</sub> ) in bulk                       | 18               | 34               | 35 <sup>c</sup>  | 27               | 30               | 25    | 25               | 22               |
| Imports and<br>exports of<br>Saturated<br>HFCs in<br>products<br>and foams | N/A              | 7.39             | 17.7             | 16.6             | 24.6             | 26.2  | 28.1             | b                |
| SF <sub>6</sub> imports<br>and exports<br>in pre-<br>charged<br>equipment  | N/A              | -0.25            | b                | -0.18            | -0.16            | -0.14 | -0.13            | -0.12            |

<sup>a</sup> Net supply or net CO<sub>2</sub>e means CO<sub>2</sub>e quantities of bulk gas produced + imported – exported – transformed –

destroyed.

<sup>b</sup> At this time, the aggregation does not meet EPA's criteria for ensuring that CBI is protected.

<sup>c</sup> As of 8/15/15.

<sup>d</sup> As of 12/8/17.

<sup>e</sup> As of 11/19/18.

All other values are as of 8/5/17.

# Table 1-6: Estimated Overall Inventory Quantitative Uncertainty for 2018 (MMT CO<sub>2</sub> Eq. and Percent)

| Gas                                                          | 2018 Emission<br>Estimate<br>(MMT CO <sub>2</sub> | Uncertainty Ra | nge Relative t     | o Emission I | Estimate <sup>a</sup> | Mean <sup>b</sup>         | Standard<br>Deviation <sup>b</sup> |
|--------------------------------------------------------------|---------------------------------------------------|----------------|--------------------|--------------|-----------------------|---------------------------|------------------------------------|
|                                                              | Eq.) (MMT CO <sub>2</sub> Eq.)                    |                | 2 Eq.)             | (%)          |                       | (MMT CO <sub>2</sub> Eq.) |                                    |
|                                                              |                                                   | Lower          | Upper              | Lower        | Upper                 |                           |                                    |
|                                                              |                                                   | Bound          | Bound <sup>c</sup> | Bound        | Bound                 |                           |                                    |
| CO <sub>2</sub>                                              | 5,424.9                                           | 5,303.2        | 5,661.3            | -2%          | 4%                    | 5,479.0                   | 90.1                               |
| CH4d                                                         | 634.5                                             | 603.2          | 723.8              | -5%          | 14%                   | 662.1                     | 30.9                               |
| N <sub>2</sub> O <sup>d</sup>                                | 434.5                                             | 335.0          | 552.1              | -23%         | 27%                   | 429.1                     | 54.8                               |
| PFC, HFC, SF <sub>6</sub> , and NF <sub>3</sub> <sup>d</sup> | 182.7                                             | 181.2          | 200.7              | -1%          | 10%                   | 190.7                     | 5.1                                |
| Total                                                        | 6,676.6                                           | 6,550.7        | 6,985.0            | -2%          | 5%                    | 6,760.9                   | 110.4                              |
| LULUCF Emissions <sup>e</sup>                                | 26.1                                              | 22.3           | 32.8               | -14%         | 25%                   | 27.5                      | 2.7                                |
| LULUCF Total Net Flux <sup>f</sup>                           | (799.6)                                           | (1,061.7)      | (597.1)            | 33%          | -25%                  | (829.6)                   | 118.3                              |
| LULUCF Sector Total <sup>g</sup>                             | (773.5)                                           | (1,034.5)      | (569.3)            | 34%          | -26%                  | (802.1)                   | 118.3                              |
| Net Emissions (Sources and Sinks)                            | 5,903.1                                           | 5,642.0        | 6,284.3            | -4%          | 6%                    | 5,958.8                   | 163.1                              |

+ Does not exceed 0.5 percent.

<sup>a</sup> The lower and upper bounds for emission estimates correspond to a 95 percent confidence interval, with the lower bound corresponding to 2.5<sup>th</sup> percentile and the upper bound corresponding to 97.5<sup>th</sup> percentile.

<sup>b</sup> Mean value indicates the arithmetic average of the simulated emission estimates; standard deviation indicates the extent of deviation of the simulated values from the mean.

<sup>c</sup> The lower and upper bound emission estimates for the sub-source categories do not sum to total emissions because the low and high estimates for total emissions were calculated separately through simulations.

<sup>d</sup> The overall uncertainty estimates did not take into account the uncertainty in the GWP values for CH<sub>4</sub>, N<sub>2</sub>O and high GWP gases used in the Inventory emission calculations for 2018.

e LULUCF emissions include the CH<sub>4</sub> and N<sub>2</sub>O emissions reported for Non-CO<sub>2</sub> Emissions from Forest Fires, Emissions from Drained Organic Soils, N<sub>2</sub>O Fluxes from Forest Soils, Non-CO<sub>2</sub> Emissions from Grassland Fires, N<sub>2</sub>O Fluxes from Settlement Soils, *Coastal Wetlands Remaining Coastal Wetlands, Peatlands Remaining Peatlands*, and CH<sub>4</sub> Emissions from Land Converted to

1-26 Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2018

Considering 100-year global warming potentials of the four major global warming gasses reported above and the weighted average of each by volume tells a different story about CO2.

#### 2018 emissions:

CO2 is 81% volume times GWP 1 =.81 Methane is 10 % volume but 25 GWP times stronger= 2.5 Nitrous Oxide is 7% volume GWP 298 times stronger = 20.92 Hydrofluorocarbon <sup>(a)</sup> is 3% volume but GWP 1,430 stronger = 42.9

#### (a) <u>Note</u>:

Hydrofluorocarbon is a large group of gasses range from 500 to 22,000. 78% of these gasses come from refrigerants with an average Global warming potency of 1,430.

0.81 + 2.5 + 20.92 + 42.9 = 67.13 of the 30% greenhouse gas emissions (non-water vapor 70%) the incremental effectiveness of each by potency:

- CO2 .81/67.13= 1.2%
- Methane 2.5/ 67.13= 3.7%
- Nitrous Oxide 20.92/67.13 = 14.8%
- Hydrofluorocarbon 42.9/ 67.13 = 64%

**Conclusion:** In current emissions CO2 is a weak player in additional global warming contribution. The focus should be and is on reducing the high potential global warming gasses. This was the focus of the Montreal Accords and emission deals made with countries to stop using HFC's in refrigerants by 2020. Unfortunately, commitments to do this have failed in China, India and elsewhere. HFC emissions in 2018 were at an all-time high. Ironically, the HFC's that now appears to be the incremental driver for global warming was "environmental solution" in the 80's. The HFC's were replaced CFC's as a refrigerant which was depleting the ozone layer. <sup>[130, 131]</sup>

There are too many types of these fluorinated gasses like Tetrafluoromethane (CF4), also known as carbon tetrafluoride and is the simplest fluorocarbon. CF4 has a very high bond strength due to the nature of the carbon–fluorine bond. CF4 a useful refrigerant but also a potent greenhouse gas compared to CO2 and last forever. <sup>[52]</sup>

• CO<sub>2</sub> is not linear in respect to temperature. Therefore, if it took 200 PPM to raise temperature 1 degree, it would take 400 PPM to raise it another degree and 800 PPM to raise it another degree. So, CO2 is a declining problem--*if* a problem at all.

"Equilibrium GCM 2 x CO2 experiments commonly assume a radiative forcing equivalent to a doubling of CO2 concentration (for example from 300 ppm to 600 ppm). In fact, the absolute concentrations are not especially important, as the temperature response to increasing CO2 concentration is logarithmic-a doubling from 500 PPM to 1000 PPM would have approximately the same climatic effect."

• CO2 does not even behave properly in the recent temperature history. The great decouple from 1940 to 1978 where CO2 steadily climbs, and global temperatures steadily fell.

The winters of the 1960's and 1970's was very cold. The talk of the day back then was the fear of the return of the ice ages! The return of the glaciers was in the news! I was in environmental science program at the time and it was one of three main concerns at the time. <sup>[53]</sup>



#### U.S. Scientist Sees New Ice Age Coming By Victor CohnWashington Post Staff Writer The Washington Post, Times Herald (1959-1973), Jul 9, 1971,

### U. S. Scientist Sees New Ice Age Coming

g atmosphessics, sool of the Na-onautics and inistration and iniversity says t man constantly t man constantly e atmosphere by burning could the much sunlight ch sunlight e tempera-by six desustained over "sev-ars" — "five to 10," he ed—"such a tempera-crease could be suffi-trigger an ice age!"

dent Coun Quali that thin first is con-

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decrease could be suffi-to trigger an lce age!" nese conclusions—in-ing thé ominous excla-ion point rare in sci-file publication — are ted in this week's issue he journal Science out y, signed by Rassol and orker Dr. S. H. Schnetfer. They are also being pres-ented by Schneider at an inns pro



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## Independent-Journal World may be facing a new, little ice age

CORVALLIS, Ore. (UPI) The world is in for a run of bad weather. Maybe even a new, but little, ice

Maybe even a new, but little, ice age. That's the word of Jorn Thiede. Oregon State University teacher and staff member of CLIMPA, which stands for Climate: Long Range Map-ping and Prediction. "At the moment," said Thiede, "the Northwest appears to be in a favorable weather period compared with the past." That's true, the state has just gone through the driest September on record, less than a half inch of rain where an inch and a half in September is normal.

is normal. "The turn for much of the world will be for the worse," he adds. Oregon State University is one of five American universities helping to map the weather of the world in the past in the hope of making better forecasts for years ahead.

• The United States CO2 emissions have been falling for decades due to declining coal and rising natural gas.



World fossil carbon dioxide emission 1970-2018

• China and India combined build the equivalent of one new coal fired electric plant every day. <sup>[54, 55, 56]</sup>

• Most historical temperature data is based on proxies that are not 100% accurate.

Climate scientists try and use ancient tree rings from extinct species and assume they are like todays tree cousins, <sup>[57]</sup> or, alternatively, use Boron isotopes in fossil shells. <sup>[58]</sup>

• Some climate scientists even make things up like Dr. Mann of Penn State with his "hockey stick "false proxy is and his big cover up: "Climategate".

In emails between Mann and his co-authors they talked about their "tricks". One of which was that they were using 20 species of bristlecone pine which in modern species are a poor indicator of temperature *and not accepted practice*. <sup>[59]</sup> Recently Mann lost his case in court trying to defend his work and had to pay the accusers attorney fees as well. This account is documented in an Article written by Stephen McIntyre entitled "PICC and the 'Trick' and posted on December 10, 2009 by the *Climate Audit*. <sup>[60]</sup>

• Northwest Passage over Arctic opening for very efficient transport across the globe earlier due to warming and ice reducing.

This may have explanations in Arctic rift volcanism awfully close in geography. <sup>[61]</sup>



Arctia's MSV Nordica set off from Vancouver, Canada, on 5 July and arrived in Nuuk, Greenland, on 29 July, after more than 10 000 km and 24 days at sea.

"It isn't the heat it's the humility" --Yogi Berra.

# <u>Part Three</u>: How mankind has thrived in warm periods and done poorly in colder periods.

• A slowly warming planet is better than an abruptly cooling one. More land becomes available in the northern and southern latitudes for agricultural purposes. <sup>[62]</sup>

As the climate warms, forest boreal zones are projected further north into the Arctic opening more resources and agricultural potential. The green area on this figure are the current expanses of the boreal zones:

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|-------|-----------------|---|---|
| ▼ SCI | ENTIFIC REPORTS | P | 2 |

## Figure 1

From: Northward shift of the agricultural climate zone under 21<sup>st</sup>-century global climate change



Projected advances of the  $GDD_5 \ge 1200$ boundary. The green area describes the current extent of the boreal region<sup>66,67</sup>.

#### **Little Ice Age:**

In a working paper series is an Article entitled "*Why Global Warming Would be Good for You*" written by Thomas Gale Moore, Senior Fellow with the Hoover Institution he begins with the following quote made by Senate Majority Leader George J. Mitchell:

"Climate extremes would trigger meteorological chaos -- raging hurricanes such as we have never seen, capable of killing millions of people; uncommonly long, record-breaking heat waves; and profound drought that could drive Africa and the entire Indian subcontinent over the edge into mass starvation. Even if we could stop all greenhouse gas emissions today, we would still be committed to a temperature increase worldwide of two to four degrees Fahrenheit by the middle of the twenty-first century. It would be warmer then than it has been for the past two million years. Unchecked it would match nuclear war in its potential for devastation".

According to Moore, Senator Mitchell's forecast and his history are both wrong. Moore states that "Warmer periods bring benign rather than more violent weather." [64]

- Humans have thrived historically in the warmer periods of our history and became stressed during colder periods.
- There have prolonged periods in medieval times referred to as the Little Ice Age. The cooling happened in phases, with an initial drop beginning around 1300, and a sharper and more abrupt onset of cold starting in 1570 and lasting for about a hundred and ten years. Those were difficult times with disease and poor food supplies. <sup>[65]</sup>

#### Volcanoes:

• Volcanic winter events are also difficult cold periods in our human history.

When the largest of the volcanoes in the world near Indonesia erupt, they emit sulfuric acid that cools the planet typically for one to three years and in rare events up to twenty years.

The "year without a summer" is a more recent example with the eruption of Mount Tambora in 1815 which caused freezes in every summer month in New England in 1816 resulting in total crop failures as a result, the populations shifted to the south. The same thing happened in Europe where crops failed, widespread famine and a cholera epidemic attacked a weakened population. Krakatoa Volcano erupted causing cooling effects in the late 1800's. <sup>[65, 66, 67]</sup>

# Tambora eruption, Sumbawa, Indonesia

The largest eruption in at least 1,300 years, causing the Year Without a Summer (1816) and disruptions in Eurasia. Further reading: <u>press.princeton.edu/titles/101...</u>



# <u>Part Four</u>: What renewables and other alternative fuels contribute to the energy budget.

- Wind and solar account for only 3.6% of the energy consumed in the United States despite all the money spent on developing Wind and Solar.
- Wind and solar worldwide is less than 2% of all global energy produced.

Wind power capacity worldwide reaches 650.8 GW, 59.7 GW added in 2019. [68, 69]

In the 2017 chart: 1128 TWH wind and 453 TWH solar is only 1% of total global energy consumption and still below 2% at current. <sup>[70]</sup>



## Wind Turbine and Solar Panels (Environmental Impact):

• Wind and Solar are not green nor are they renewable.

Both wind and solar have shelf lives of 20 to 30 years and are not recycled. Both have large negative impacts on the environment involving vast mining operations for elements like iridium.

#### Wind Turbines:

A used wind turbine blade is terrible for landfills as well as the environment. One wind turbine blade can be longer than a Boing 747 wing, which makes it impossible to haul away on a tractor-trailer to the landfill unless the blade is cut. Cutting a blade requires a special diamond-encrusted industrial saw because a wind blade is made so that it is strong enough to withstand hurricane-force winds. Blades are made of resin and fiberglass and as a result, a blade can only be cut and not crushed. Options such

as recycling or repurposing are also not available because the blades of the materials used to make the blade which makes it unlikely that a blade can be used in a different purpose. It is estimated that within the next 20-years the United States will have more than 720,000 tons of waste blade material which is a "forever waste". <sup>[71, 72, 73]</sup>

Michael Moore produced a documentary entitled "*Planet of the Humans*" (See the YouTube 2019 release) and it is a must watch because it exposes how renewables are *not renewable* and they are *not green*. The video was initially taken down from YouTube but later the censorship was removed and now the documentary has over 9 Million views as of August 2020 with 83% of the viewers "liking" the movie. <sup>[74]</sup>

• Wind and solar are not dependable for obvious reasons because the sun does not always shine, and the wind does not always blow.

The wind industry projects an annual output of 30-40%, but real-world experience shows that annual outputs of 15-30% of capacity are more typical.

#### Solar Panels:

As of 2018, the efficiency of the most advanced solar cells is closer to 23%, while average solar cells for residential use are around 18.7% efficient. The average roof in the United States gets about 4 hours of usable sun per day. <sup>[75]</sup>

• Many of the ideal wind farm sites have already been developed.

For instance, you do not see many windmills in Arizona because the wind does not blow enough there. Nor are there any in the Southeast region of the United States. They are all over the middle of the country. Wind farms take wind energy out of the air therefore there is a limit to how many you can build efficiently in the center of the country. And when you map where the clusters of wind turbines are physically located, the hole in the southeastern US becomes even more stark:

#### Wind Turbines in the US



Javier Zarracina

The above map of 57,636 wind turbines across the US is drawn from a terrific **interactive website** launched in April 2018 by the US Geological Survey, the American Wind Energy • Solar is efficient in a limited number of Southwestern states. <sup>[76]</sup>



#### Wind Turbine and Solar Plant Casualties:

Migratory bird populations are down by the millions in the United States. The renewable industry has a permit to kill up to 4500 bald eagles a year because that is what happens.

Does not matter if they are getting fried in the lasers in the large solar arrays or bashed by a fifty-ton wind blade they are dead either way. <sup>[78 thru 83]</sup>

#### **Batteries:**

Battery storage is impractical, expensive and has about a ten-year shelf life. Iridium mining <sup>[84]</sup> is also an environmental disaster around the world. <sup>[74, 85]</sup>

#### Tesla's Powerwall:

A Powerwall is a battery pack designed for your home. Powerwall's are intended to be used as an alternative to powering your home. A Powerwall is intended to power a home at night from built-up solar energy. The installation and use of a Powerwall are intended to reduce reliance on the grid. Equipment needed to install and utilize a Powerwall are (i) Battery Packs; (ii) Inverters; (iii) Solar Panels and (iv) Backup panel and switch.

A Powerwall is supposed to save money, reduce your impact on the environment and prepare a home for unexpected power outages.

Tesla lists the Powerwall at a cost of \$6,500 alone, and puts supporting hardware costs at \$1,100, bringing the price of just the Powerwall and its associated components to \$7,600 before installation. As a rough estimate, you can expect the Tesla Powerwall to cost between \$9,600 and \$15,600 for a full system installation. That number includes the battery, an inverter, various other equipment costs, and estimated installation costs.

In most cases, homes with a Tesla battery will charge and discharge their battery every day. The Powerwall comes with a 10-year warranty. Tesla guarantees that the battery will maintain at least 70 percent of its capacity to hold a charge during that time. Tesla's battery technology is like other rechargeable batteries both large and small: as time goes on, the battery loses some of its ability to hold a charge.

Think of how the battery life of a brand-new smartphone compares to one that is a few years old. As you continually charge and drain your phone's battery, it starts to lose some of its ability to hold a charge. The battery life of your Powerwall battery will deteriorate in the same way. That is not an indicator of a product flaw – all batteries lose some of their ability to hold a charge over time, whether it is an electric vehicle battery, a home energy battery, or a rechargeable AA battery.

Therefore, Tesla offers a warranty that guarantees a certain percentage of storage capacity ten years in the future. <sup>[86]</sup>

#### **Electric Cars**:

Electric cars run on electricity 80% produced by burning hydrocarbons.

Use of electric cars consumes more hydrocarbons than fueling the car directly with hydrocarbons due to inefficient loss of energy associated with energy transfers. Electricity loss during transport in the United States is estimated to be 5%. "Tail pipe guilt" is not really solved. <sup>[87]</sup>

#### **Biomass**:

Biomass sources for energy like woodchips and wood processing wastes.

To amass wood chips, full logging operations require clear cutting forests that would be consuming CO2. For information covering a Biomass full scale logging operation in Michigan and Vermont see Michael Moore's "*Planet of the Humans*."<sup>[74]</sup>

It is hydrocarbons that fuel the trucks, the chain saws and natural gas that is used in large amounts to keep the wood chips burning in the generation process. Ethanol is a farm subsidy and requires more fossil fuels to produce than it provides. It also is one of the most expensive fuels. <sup>[88]</sup>

#### Hydropower:

Hydropower is not renewable either and is on a decline in the United States. Due to environmental protests no dams are being built anymore.

In fact, many are proposed to be removed to repopulate natural fisheries such as the one taken out recently in Oregon. Hydropower dams are also filling up with sediments in the western two-thirds of the country where conditions are arid. This reduces water storage and pressure head to generate electricity. <sup>[89 thru 92]</sup>



## Nuclear:

Nuclear is also on the decline, now 19% of electricity in the United States, due to environmental protest-despite being the cleanest in air emissions of all generators.

The aging plants are all beyond their original planned life of 35 years and many are approaching 50 years in service today. Technological advances are needed to make nuclear power plants safer and built farther from tsunami risks, fault hazards etc. <sup>[93]</sup>

#### Hydrocarbons:

All the above energy sources require hydrocarbons as a backup with natural gas cogeneration plants as these plants can be turned on and off instantly.

Natural gas is there when the wind does not blow, if the sun does not shine, water does not flow, logs will not burn, and yes nuclear plants have seasonal shutdowns every six months for routine maintenance! <sup>[94]</sup>

#### **Cogeneration & Combined Heat and Power**

Cogeneration, also called combined heat and power (CHP), is the simultaneous production of two or more forms of energy from a single fuel source. Natural Gas is by far the most common front-end fuel source for the Cogeneration plant to operate. [95, 96, 97]

"There are lies, damned lies and statistics" --Mark Twain

## <u>Part Five</u>: The United States and other world economies run on hydrocarbon fuels. There is no current technology available to feasibly replace fossil fuels in the next 30 years.

• United States is 80% hydrocarbon powered. Some things just do not work with renewables such as airplanes.

#### **Electric breakdown:**



U.S. primary energy consumption by energy source, 2019

eia) April 2020, preliminary data

Coal is 24% of electricity in the United States; Natural Gas is 37% of electricity in the United States and Nuclear is 19% of electricity in the United States.

Renewables contribute 19% of electric in the United States and electric is 37% of total energy.

Renewables are then 7% of total energy in the United States broken down as follows:

- A. 2% Geothermal.
- B. 37% Hydroelectric.
- C. 38% Wind.
- D. 15% Solar.
- E. 7% Other.(Other includes Biomass and Ethanol [Ethanol consumes more hydrocarbons than it provides]).

Electricity is 37% of total energy consumed the rest is transportation, heating, and other industrial uses Renewables as a % of total energy consumed in the United States:

| A. | 37% of 19% of 2%  | = 0.11% Geothermal.    |
|----|-------------------|------------------------|
| B. | 37% of 19% of 37% | = 2.59% Hydroelectric. |
| C. | 37% of 19% of 38% | = 2.66% Wind.          |
| D. | 37% of 19% of 15% | = 0.94% Solar.         |
| E. | 37% of 19% of 7%  | = 0.48% Other.         |

Total wind and solar = 3.6% of total energy. Total all renewables = 6.78% of total Energy. <sup>[98]</sup>

• 5% of electricity generated is lost during transport due to friction/heat loss.

Why hydrocarbons are so important to the United States: Natural Gas and Liquid Petroleum are 66% of our total energy budget.

- Natural Gas, Petroleum and Coal is 80% of our total energy budget.
- Crude oil production in the United States has climbed from 5 million barrels a day in 2009 to a high in Feb 2020 of 13 million barrels a day and the United States became the number one producer in the world.
- At pre-Covid-19 pricing of \$60 per barrel the oil was worth \$780 million dollars a day \$284 billion per year added to the United States economy.
- The United States recently became an oil exporter and exports approximately 1.2 million barrels a day (MMBOD). <sup>[100]</sup>
- Natural Gas production has also climbed in this country from about 65 billion cubic feet a day (BCFPD) to the current 99 BCFPD. <sup>[101]</sup>

A decade ago the United States was getting ready to import Liquid Natural Gas (LNG) but this was before the oil and gas industry discovered and developed shale plays that has made the United States one of the largest producers in the world as well as a top three exporter of LNG.

- We now export about 9 BCFD of natural gas a day to over 39 different countries. <sup>[102]</sup>
- Natural gas production valued at \$2.00 MCF at 99 BCFD is \$198 million per day or \$72.27 billion a year into our United States economy. <sup>[103]</sup>
- Oil and Natural Gas adds \$356 billion a year impact on the United States economy, and activists want to stop it?

Is there any wonder why the stock market and economy before COVID-19 was doing so well? It is energy independence for the United States!

The United States used to import 12 million barrels of oil per day; and now we export almost 1.25 million barrels of oil per day. Importing oil was at one time 65% of our trade deficit as a country! <sup>[104, 105]</sup>

As shown in the following graphs, there are so many positives from our energy sources: Life expectancy is up, child mortality down and extreme poverty reduced:



*"Just follow the money"* --Henry E. Peterson

## <u>Part Six</u>: The Green New Deal or Biden's "2020 Energy Plan" would bankrupt the Country while skyrocketing individual family energy costs and not solve anything.

• The Mega Trillion plan called the *Green New Deal* would ruin the Country, sky rocket energy costs to consumers while purportedly trying to solve *"Climate Change"* which really isn't much of a problem because it brings some very important positives like greening of the planet, higher food production, and protection against cold.

In June of 2020, the House Democrat Majority published a 545-page report on "Climate Change" entitled:



On February 7, 2019, the House Committee on Energy and Commerce submitted in the House of Representatives H. Res. 109 "Recognizing the duty of the Federal Government to create a Green New Deal". H.R. Res. No. 109, 116<sup>th</sup> Cong § 1 (2019). A question that often goes unanswered is what is the goal of the Green New Deal and how is it promoted? The stated goal is to tackle climate change while at the same time fight inequity. The advocates of the Green New Deal state their desire is to make the United States carbon-neutral – net zero carbon emissions – within 10 years. How they intend to accomplish this is to eliminate coal, natural gas, or Nuclear generated electricity by the year 2030. These three sources provide 81% of electricity today and they want to replace with more wind and solar which today is only 3.6% of electricity. Sound impossible? Well that is because it is impossible. <sup>[98, 107]</sup>

If you think the COVID-19 shutdown was bad; it will pale in comparison to the Green New Deal. Should Congress successfully pass rules and regulations mandating all businesses and individuals comply with their massive changes it will drastically affect everyone's cash flow. The Green New Deal affects the way individuals' homes are heated and cooled. The Green New Deal affects all transportation. Net zero carbon emissions means a vehicle will have to be overhauled so that it will run on a battery. If the Green New Deal is ever made into law, the catastrophic results to the United States economy will make COVID-19 look like a walk in the park. <sup>[108]</sup>

• Schellenberger the once acclaimed *Time Magazine* Environmentalist of the Year sent an apology out on *Forbes* for lying to the world about the Environmental issues for 30 Years.

Schellenberger is now releasing a book called "*Apocalypse not*". *Forbes* deleted the post within an hour, but it has since been reposted on hundreds of sites on the internet giving it more exposure than it would have because of *Forbes* censorship. <sup>[110]</sup>

• Climate scientist Dr. Mototaka with MIT credentials breaks rank: "our models are Mickey-Mouse mockeries of the real world."

#### SEPTEMBER 26, 2019 CAP ALLON

Dr. Mototaka Nakamura received a Doctorate of Science from the Massachusetts Institute of Technology (MIT), and for nearly 25 years specialized in abnormal weather and climate change at prestigious institutions that included MIT, Georgia Institute of Technology, NASA, Jet Propulsion Laboratory, California Institute of Technology, JAMSTEC and Duke University.

In his book *The Global Warming Hypothesis is an Unproven Hypothesis*, Dr. Nakamura explains why the data foundation underpinning global warming science is "untrustworthy" and cannot be relied on:

"Global mean temperatures before 1980 are based on untrustworthy data," writes Nakamura. "Before full planet surface observation by satellite began in 1980, only a small part of the Earth had been observed for temperatures with only a certain amount of accuracy and frequency. Across the globe, only North America and Western Europe have trustworthy temperature data dating back to the 19th century." <sup>[111]</sup>

## <u>Part Seven</u>: Production of hydrocarbons are environmentally safe and adequately available to run the world for centuries. In contrast, renewables are not renewable or environmentally friendly.

• Fracking is safe. The fluid used is 99% water with some friction reducers like dish soap and the rest tiny particles of sand.

It is typically pumped today in rocks two to three miles deep in the ground. Fresh ground water usually occurs in the first few thousand feet below the surface only and below that the rocks contain naturally salty water four times as salty as seawater. The freshwater zones are protected by a surface conductor pipe cemented in. A second casing string that covers all freshwater zones and cemented in, an intermediate casing string that is set above deep over pressured zones and a final production string of casing. So, these four strings of pipe are all cemented, and pressure monitored while fracking.

Is fracking safe? Yes, it is safe!

• What about the movie *Gasland* where they light a fire coming out of the sink! They accused an oil company of ruining their water. *Gasland* was a fraudulent claim that the family lost in court.

The shallow waters in the Pennsylvania town always had natural gas in them. This is where the Drakes Well, the first oil well that was dug by hand to a depth of twenty feet, is located. These false claims are easily debunked by comparing the chemistry of the gas in the sink to the gas coming out of producing well from deep formations. They were totally different. <sup>[112, 113, 114]</sup>
• Similarly, the rancher west of Fort Worth Texas that turned his new water wells on with natural gas contamination in an area where Range Resources had been fracking and he sued. Same thing different gas composition from different age reservoirs. <sup>[115]</sup>

Corporation Commission of Texas rules Range Resources not the source of gas in water "Evidence presented during the hearing included geochemical gas fingerprinting that demonstrated the gas in the domestic water wells came from the shallower Strawn gas field, which begins about 200 to 400 feet below the surface. The natural gas tested did not match the gas produced by Range from the much deeper Barnett Shale field, which is more than 5,000 feet below the surface in that area. Range also presented information to demonstrate that the two Range gas wells were mechanically sound, without any leaks. Evidence presented at the hearing showed that hydraulic fracturing of gas wells in the area could not result in communication between the Barnett Shale gas field and shallow aquifers from which water wells in the area produce." <sup>[116]</sup>

• Fracking is not new it was first done by Amoco in 1948 and has been used safely since then millions of times!

That is 72 years of fracking and somehow in the last ten years people think it sounds like another four-letter word and have adopted it as a battle cry against an industry that has raised their lifestyles beyond imagine. They even tried fracking with nukes in Colorado! Even nukes could not reach the Freshwater zones! <sup>[117]</sup>

• So, what has changed? Its horizontal drilling is what is new, and we know drill sideways several miles sideways and complete 10 or 20 well equivalent wells at a time.



This is environmentally friendly and more cost efficient.

• Fracking was ruled safe in major inquiries by the EPA and various oil field regulatory agencies decades ago but not everyone got the memo!

A Fracking EPA ruling in 2015 vs 2016 produced contradicting information that was as a result, I believe, from increasing political pressure.

In 2010, Congress asked the EPA to investigate the safety of fracking. In 2015, the EPA issued a draft report. The bombshell statement from that report was *"that there was no evidence that fracking had led to widespread, systemic impacts on drinking water resources in the United States."* 

Environmentalists were quick to note that the EPA had deleted its previous claim of no evidence of widespread water contamination and were now reporting that "hydraulic fracturing activities can impact drinking water resources under some circumstances."

But did the EPA reverse course? No. They gave examples where fracking *could* contaminate water. Ultimately, the final report deleted a phrase from the draft report that there was no evidence of widespread impact on water supplies, and selectively used hypotheticals to show how fracking "could" contaminate water supplies. This is the Obama Administration laying down one more speed bump for the oil and gas industry while it still could. <sup>[118, 119]</sup>

- Pipelines protests are the rage these days; many protestors are not ordinary protestors but paid participants with extra money for being violent and getting arrested. <sup>[120, 121]</sup> What if you knew that the only alternative way to transport oil transport is by railway and that this mode of transportation is much more prone to spills and accidents? By protesting the pipeline, the net effect is exposing more risk to the environment, not less! <sup>[122]</sup>
- The attempts to take down the oil and gas operations in this country are dangerous to our economy and future standard of living.
- I am proud of the resilience of the domestic oil and gas business and without it the country would be in bad shape today.
- The climate movement is starting to come apart as it is being exposed from their very own like Moore and Shellenburger with no doubt more to come. Global Warming will be looked back in history as one of the biggest exaggerations of our time.
- Biden's Climate Plan Is Serious—About Green Pork If the price is right— \$2 trillion—greens will overlook his apostasy on fracking and nuclear power. <sup>[123]</sup>
- Then-President Barack Obama advocated for ramping up the use of natural gas as he did in more than one of his State of the Union addresses:

In his 2015 State of the Union address then President Barack Obama advocated for ramping up the use of natural gas as he did in more than one of his State of the Union addresses:

"We believed we could reduce our dependence on foreign oil and protect our planet. And today, America is number one in oil and gas. America is number one in wind power. Every three weeks, we bring online as much solar power as we did in all of 2008. And thanks to lower gas prices and higher fuel standards, the typical family this year should save \$750 at the pump." <sup>[124]</sup> In his 2014 State of the Union address then President Obama stated:

"Now, one of the biggest factors in bringing more jobs back is our commitment to American energy. The all-of-the-above energy strategy I announced a few years ago is working, and today, America is closer to energy independence than we have been in decades.

One of the reasons why is natural gas – if extracted safely, it is the bridge fuel that can power our economy with less of the carbon pollution that causes climate change. Businesses plan to invest almost \$100 billion in new factories that use natural gas. I will cut red tape to help states get those factories built, and this Congress can help by putting people to work building fueling stations that shift more cars and trucks from foreign oil to American natural gas. My administration will keep working with the industry to sustain production and job growth while strengthening protection of our air, our water, and our communities. And while we are at it, I will use my authority to protect more of our pristine federal lands for future generations." <sup>[125, 126]</sup>

President Obama's former Secretary of Energy, Dr Ernest Moniz a nuclear physicist, continues to advocate for Natural Gas as the main solution to climate change. <sup>[127]</sup>

## **Summary**:

This paper presents a history of the environmental movement in the United States from Earth day to 2020. The Green New Deal (GND) and the Biden Energy plan are examined and questioned due to poor historical predictions on the environment and poor performance of the renewable energy sources. The GND proposes spending more than 80 Trillion Dollars over decades to re-tool the United States energy markets with wind and solar. Wind and solar are shown to have problematic environmental impacts and have shelf lives of only 20 to 30 years, so are not technically renewable. The unreliable nature of renewable energy requires vast storage with batteries using environmentally damaging Iridium imported from outside of the United States. Over decades vast resources have been targeted toward wind and solar development but today it still only accounts for 3.6% of total annual energy production in the United States.

"Global Warming" is the driving argument that a GND is urgently needed and estimates of our planets' doom is echoing across the United States. This paper argues that the GND is a solution for a problem that does not exist. The Earth's history of climate change over millions of years prior to mankind's involvement is well documented in the geological record. Milankovitch planetary cycles have brought ice ages every 100,000 years for the last several million years. Volcanoes have provided cooling periods called "the year without a summer" that caused freezes in every summer month and crop failures. Sea levels have risen some 370 feet in the last 12,000 years during glacial retreat and continue to rise at an average of 3 mm per year as they have done so in every glacial cycle retreat. The rise of sea levels, due to melting poles, is presented as related to geothermal events in both poles associated with recently discovered volcanic rift zones. CO2 in 2018 emissions is not today's problem and responsible for only about 1% of today's global warming incremental emissions. It poorly correlates with world temperatures and was even inversely correlated during the period of 1940 to 1978 where CO2 steadily rose, and temperatures steadily dropped worldwide. During this cooling period the headlines were "The Ice Age is Returning" like the hysteria today about global warming. CO2 is plant food to photosynthesis and has greened the planet by 40% over 50 years according to NASA. This climbing CO2 allowed for agriculture to advance and feed a population that doubled on earth during the same time. Predictions about global warming are all based on modeling and overly complex and incorporate little of the geologic record.

Hydrocarbons today produce 80% of the United States total energy needs and this has not changed in many decades despite the money thrown at alternative fuels in subsidies. The United States went from importing 65% of its oil to be self-sufficient and a net exporter pre-COVID-19 and through July 2020. The United States became the largest producer in the world, again. Similarly, natural gas production went from 60 BCFD to almost 100 BCFD and the United States is an exporter of LNG of 9 BCFD and projected to steadily increase LNG exports over the next ten years. Producing domestic hydrocarbons is environmentally safe and a cheap source of energy for the country. The contributions to the United States economy via hydrocarbon extraction are well documented. Eliminating hydrocarbon production is the goal of the Green New Deal which would be dangerous to the United States and World economies.

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