

# The Climate Change Debate

For Barry Zack's Presentation at the November 2017 STM Meeting

Barry's environmental website, <http://ourneighborhoodearth.org/welcome.html>

We're calling this a debate, which I will debate is not a debate. There's enough real science on this subject making the word "debate" debatable in this instance. Even my opponent doesn't debate that.

Neither the man, who was unpopularly elected President, nor the Governor of the Sunshine State, permit the use of the words "Climate Change" or "Global Warming" to come from the lips of their respective staffs. More about the "Sunshine State" later.

My opponent has used the argument that scientists can be bought. He is correct in that condemnation. But which scientists are we talking about? Those who have researched the subject of Climate for decades, and have a moral obligation to alert the earth's populations as to the obvious dangers? Or could it be the ones who have been hired by the very industry that sees a threat to its survival by the conversion to clean, safe renewable energy? Anyone can defend his or her position by showing graphs or articles supporting their viewpoint. Only sound judgment can arrive at the truth – not always easy to do.

Assuming that majority of the scientific community is correct in its assessment that the burning of fossil fuels is primarily responsible for Climate Change, what are the impacts?

**1. Sea-level Rise**, forcing large segments of the world's populations (including the U.S.) to seek higher ground

**2. Ocean Acidification**, affecting the ability to support life - especially the endangering of the coral reefs

**3. Higher Temperatures** -Think about Fairbanks as the next decade's winter vacation retreat

**4. Landscape and Wildlife Habitat Degradation**

**5. Increased Risk of Storms, Droughts, and Floods** (already witnessed)

**6. Ambient (outdoor) Air Quality and Health** (according to the World Health Organization (WHO). This can include Aggravated cardiovascular and respiratory illness, added stress to heart and lungs, which must work harder to supply the body with oxygen and damaged cells in the respiratory system

I recently watched a painful Frontline interview. It featured Bob Murray, a coal boss, highly influential in the Trump administration and who's guiding its thinking (if you can call it that?). The interview is covered in a story I've linked to [here](#).

Al Gore, has been accused by the Climate Opposition, as one who profits from scaring the be-jesus out of us with his "inconvenient" warnings. Well, I'd rather see the former Vice President profit from the work he's done, than be "**gored**" by the fossil fuel industry, that have made fossil **fools** of us. Gore reportedly donated the proceeds from "Inconvenient Truth" to charity.

Smart nations appear to care more about the health of the planet and its inhabitants, than the profits of the fossil fuel industry – and the politicians who depend on it for their political survival. This explains the "hoaxers" rhetoric that seems to come mostly from the U.S., the nation whose elections cost more than that of any other, by far.

[opensecrets.org](http://opensecrets.org), follows the money to show which elected officials accept these industry bribes, to defeat pro-environment legislation, in exchange for campaign funds. The money runs into the multi-millions. It just might explain why Senator James Inhofe, Republican from Oklahoma, and head of the Environment Committee, (**HA!**) received over \$300,000 from oil & gas interests in exchange for labeling Climate Change a hoax. He demonstrated his “keen” knowledge on the subject by bringing a snowball onto the Senate floor to “prove” his point.

I cannot emphasize – strongly enough – the significance of the role that politics plays in our government’s decision making. The Tweeter-in-Chief is attempting to reverse most or all of the environmental achievements of his predecessor. The Koch Bros, infamous for their combating environmental legislation, are great friends of Mike Pence, and their influence is strongly felt in shaping this administration’s policies ([See the article in the New Yorker](#)). Scott Pruitt, who spent much of his career opposing the EPA, is now heads it. Scientists, who spoke out about the ills of the Pruitt/Trump plan, have been demoted to positions of trivial importance. This may call for a change in the meaning of the **P** in **EPA** to **Poison** instead of **Protection**.

The last decade has been the warmest in modern times:

- Weather patterns (not weather) have become more severe,
- Hurricanes more unpredictable and far more damaging - as Harvey, Irma and Maria will attest,
- Drought-induced forest fires have set records of destruction (ask the people of the Napa Valley),
- Miami is experiencing flooding that

wasn’t predicted to happen until 2030.

Other than those facts, and not the alternative ones, there’s little doubt that the climate is changing. Check with some of New Orleans residents, who, on the twelfth anniversary of Katrina, again witnessed the washing away of their homes.

We Floridians live on a peninsula that, due to sea-level rise, will become much narrower in the next thirty years. Even the banking industry knows that, resulting in limiting mortgages on a certain beachfront properties to a five-year period. In other words, there might not be a Siesta *aqui*.

The world’s Coastal cities are imperiled by sea inundation. Mr. Trump is limiting migration from countries that don’t fit within his high “defend-America” ideals, but what is going to happen when legions from low-lying countries are forced to migrate?

With the administration’s environmental policies, who’s really defending America when the Obama flood control procedures have been rolled back?

Earth began with the “*Cambrian*” era, about 4.6 billion years ago, (before many of us were born). Nineteen epochs (e-pox) followed that one, during which periods the climate changed dramatically. These metamorphoses were predominantly caused by geological events. Now we are in an era scientists have labeled the “*Anthropocene*.” The word translates to “changed by mankind.” So now we can no longer conveniently blame geological happenstance on what is occurring on our planet. Only WE are responsible.

Many of us fail to curb our use of the very things that impact climate change. I admit to being part of that problem, though my carbon footprint doesn’t compare with those *Humvee* owners (or other monstrous vehicles), or those

who move their private jets almost as often as we do our bowels. And incidentally, those with the lowest carbon footprints (the poor) will suffer the greatest scourge that severe climate change will bring.

Other than a raised conscience, there is little incentive to do our part to limit climate change. Only one solution can solve that problem, which is something that many Republicans supported a decade ago (some still do, as an [article in the Guardian](#) will reveal). Making the things that fill our atmosphere with greenhouse gasses prohibitively more expensive discourages their use. More about that, later. The latest trend in automobile purchases is toward gas-guzzling vehicles. About two out of every three vehicles is larger than a passenger car. The *Ford 150* pickup has achieved popularity on a scale that would have been impossible when gas was \$4.59 per gallon back in 2008. The purveyors of the fattest vehicles are now enjoying the greatest sales results.

Electric auto sales have risen dramatically, thanks to innovators like Tesla. Other manufacturers are following suit, and several countries (including China, which our enlightened President labels as being responsible for the Climate Change hoax) have vowed to eliminate internal combustion engines by 2030. But is that a solution to the climate crisis? Only if the electricity to power those vehicles comes from renewable energy.

Oil-producing Dubai, has embarked on an ambitious sustainability program, because unlike Venezuela, they've seen the Arabic handwriting on the wall. I refer to "[Green Dubai](#)" on my website.

Even Shell Oil gets the message. They're investing in the electric vehicle market. You can [Read all about it:](#)

Iceland, by the way, will be devoid of gaso-

line-powered automobiles due to their natural advantage: geothermal energy. They will use that resource to fuel the hydrogen-powered car, the only bi-product of which is H<sub>2</sub>O. Try drinking what comes out of your tailpipe today.

At present, energy in these United States is generated, primarily by the burning of fossil fuels — most of which come from natural gas. Only about 14% is derived from renewable energy. Those who profit from the sale of so-called "cleaner" natural gas conveniently forget to mention its methane emissions, richer in greenhouse gasses than CO<sub>2</sub>. To see how that conclusion was reached, you can check out this just released [Guardian story](#).

Hydraulic fracturing, AKA *fracking*, which has made natural gas far less expensive than coal, continues to gain as a resource. As an incentive to let the mother of all *frackers* (A.K.A. *mother-frackers*), do their hydraulic thing on your land, Chevron offer free pizza if your property explodes. I didn't make that up, as an article from the website "No Fracking Way" will demonstrate. I've provided a link to [that article:](#)

This compounds the problem, as it exacerbates global warming. By the way, I'm allowed to use that term because I don't work for the EPA or for Gov. Rick Scott.

I mentioned the Sunshine State, earlier. Look as you drive around. How many solar roofs do you see? There's a reason why the Sunshine State is one of the leaders in sunshine, but a laggard in solar roof installations. It's called "reverse metering," meaning your electric meter runs in reverse when your roof generates more energy than you take from the grid. Almost every state has a more consumer-friendly reverse metering rule than Florida, although utilities in many states are fighting to

limit those rules. Those states mandate that the power you sell back to the grid be at the same price you paid to your utility. Florida, however, allows you to get back only the wholesale cost. This difference is what stands in the way of solar roof affordability. Gov. Scott thinks that electric utility profit is more important than curbing the use of fossil fuels, and all that implies (**including much cheaper energy**). For a direct example, when reverse metering is applied, a solar roof costs a California resident \$10,000 while that same size unit will set Floridians back about \$25,000.

For those of you who are not yet convinced that climate change is real, there's an award-winning Netflix documentary entitled, "Chasing Ice." It is the product of photojournalist, James Balog, who risked life and limb to get startling images from four glaciers: They're in Alaska, Iceland, the Rockies and Greenland. Time-lapse photography, over a five-year period, demonstrates the melting of these glaciers. One of the conclusions I drew from watching this film was that Iceland might have to change its name to "No Ice Land." Greenland is transforming from an ice covered tectonic plate jutting off the North American coast to actually fit its name. The film also talks about Glacier National Park, which I refer to on The Climate Change news section on my website as "No Glacier National Park." To quote from an article from the NY Post, one of Rupert Murdoch's publications (believe it or not): "It's 'inevitable' that glaciers in the contiguous United States will disappear within just a few decades, because of climate change, scientists warn." Similar stories appeared in several other publications, including the National Geographic.

The loss of glaciers poses two major threats to the environment:

1. The reflectivity of glaciers serves to bounce the sun's rays back, rather than the earth absorbing them.

2. A melting glacier forces ice to break off into the seas (known as "calving"), causing sea-level rise, which is already happening, as mentioned earlier.

Another threat is the disappearance of forests. We all know that trees absorb CO<sub>2</sub> and release oxygen. But nations like China are grabbing up forest areas, and not just in their native territories, but also on the other side of the world. China's interest in Latin America will likely be bad news for Western Hemisphere forests. China is looking to the region as a source for raw materials (minerals, timber, agricultural products) to power its own industries. As the Economist Magazine puts it, "With galloping GDP growth and a scarcity of arable land, China's appetite for natural resources and farm products seems insatiable, and South America has both." The article notes that China's Latin America imports from have almost tripled since 2002.

Lacking the means to move to higher or less polluted ground, the poor are most severely affected as a result of burning fossil fuels? That explains why you won't find a coal-fired power plant near Mara Largo. But if you're hankering for the smell of burning coal, and the dust it emits into local atmospheres, try visiting the least affluent neighborhoods. But Mara Largo, don't celebrate just yet. Your golf courses are likely to become gigantic fishing holes within the next twenty or thirty years.

Coal mining, like its ancestor, whale-blubber fishing, is obsolete; despite Trump's promises to bring back many many beautiful beautiful coal jobs. It ain't gonna happen, and these former coal miners will require training in viable industries to find work. Fortunately

that is a strong possibility, as jobs in the renewable energy sectors are growing by leaps and bounds. A headline from a January, 2017 Fortune Magazine article read, “Renewable Energy Is Creating Jobs 12 Times Faster Than the Rest of the Economy.” Even in a petro-centric state like Texas, wind and solar jobs are among the highest in the country.

I mentioned that there is a way to combat climate change, and that was to place a fee on fossil fuel usage. It could be done in a revenue-neutral way that wouldn't affect the average American (and might prevent those Sherman tank drivers from becoming average Americans). The Citizens Climate Lobby has come up with just such a plan. It's an idea they call Carbon Fee & Dividend:

Here are the highlights:

**1. Collection of Carbon Fees/Carbon Fee Trust Fund:** Impose a carbon fee on all fossil fuels and other greenhouse gases at the point where they first enter the economy (collected by the Treasury Department).

**2. Emissions Reduction Targets:** To align US emissions with the physical constraints identified by the Intergovernmental Panel on Climate Change (IPCC) to avoid irreversible climate change, the yearly increase in carbon fees including other greenhouse gases, shall be at least \$10 per ton of CO<sub>2</sub> equivalent each year.

**3. Equal Per-Person Monthly Dividend Payments:** Equal monthly per-person dividend payments shall be made to all American households (½ payment per child under 18 years old, with a limit of 2 children per family) each month. The total value of all monthly dividend payments shall represent 100% of the net carbon fees collected per month.

**4. Border Adjustments:** In order to ensure there is no domestic or international incentive

to relocate production of goods or services to regimes more permissive of greenhouse gas emissions, and thus encourage lower global emissions, Carbon-Fee-Equivalent Tariffs shall be charged for goods entering the U.S. from countries without comparable Carbon Fees/Carbon Pricing. Carbon-Fee-Equivalent Rebates shall be used to reduce the price of exports to such countries. The State Department will determine rebate amounts and exemptions if any.

Admittedly, it would probably take a lightning bolt hurled, by an alleged Supreme Being, into the ranks of the Republican Congress for that to happen. Or individuals like us could bombard our legislative representatives with phone calls and other correspondence, and/or show up at Town Hall meetings, urging them to pass such an act. (sing) **I can dream, can't I?**

Despite the pessimism built into my DNA, there are some reasons to be hopeful, as a [linked piece](#) from the Citizens' Climate Lobby will illustrate.

There are many scientists who believe that we have reached the climate change tipping point. (See the article in [Forbes Magazine](#) from March 2017). Basically this means we can't stop the globe from continuing on its warming path. But all is not hopeless. There are steps we can take to protect us from future climactic disasters. A Rotterdam-style plan could avert disasters like super-storm Sandy. That 2012 event nearly wiped out places from Far Rockaway, New York to parts of New Jersey. Some of the less affluent area residents are still reeling. The destruction might have been avoided, or at least minimized, had some plan been in effect. Sandy is estimated to have cost those communities in excess of 72 billion (that's enough to buy Trump Steaks for the rest of your lives). Hurricane Harvey has a signifi-

cantly higher estimated cost: \$190 billion (the combined total of Katrina and Sandy).

Other countries are proactive about climate change's potential damaging effect. The city of Rotterdam, mentioned above, has what they call a "[Thousand-Year Plan](#)." It predicts that sea level caused flooding will occur far more often than what we have anticipated in the U.S.

There are two ways to handle the cost of disasters: The first is to simply let them happen (Harvey, Irma, Maria, Sandy, Katrina and many others). The events will simply re-occur in the near future, compounding their costs many times over. We already know the results of inaction. The other is to build barriers to minimize those costs. That would be a one-time expense, not to mention how it would maximize human safety.

So do want a congress in action? Or congressional inaction? Vote, and the choice is yours (to quote an old political ad). Make our legislators responsible to us, and not to the fossil fuel industry.

I've linked to some articles providing additional information.

[The NY Times answers your Climate Change Questions:](#)

[The Climate Change Tipping Point](#)

To learn more, I urge you to visit the Climate Change page on my website. There, you will find dozens of articles from respected journalistic institutions, supporting the views I've expressed.

Here are two stories from the New York Times that you might find interesting:

1. Scientists are concerned that Trump administration officials are sidestepping questions about climate change after two major hurricanes. [Read All About it...](#)

2. A string of extreme events has brought new focus to a familiar question: Is climate change to blame? [Read on.](#)

We can choose to believe that Santa slides his rotund body down your chimney to bestow gifts (if you have been good, for goodness sake), or that a Supreme Being can magically protect the only planet we have from climate-caused destruction. Since it is impossible to disprove a negative, some adults rely on critical thinking to determine the plausibility of an argument. We need to do just that to decide whether to follow the advice advocated by industry-driven "science-based" articles or from scientists who actually care what happens to us, and more importantly, our progeny.