

previous order, following the remarks of Senator WHITEHOUSE.

The PRESIDING OFFICER. Without objection, it is so ordered.

The Senator from Rhode Island.

#### CLIMATE CHANGE

Mr. WHITEHOUSE. Mr. President, I rise today for my 113th "Time to Wake Up" speech on climate change. They say 13 is unlucky. I don't know what 113 is, but I do know what climate change is. It is very real. We shouldn't kid ourselves. And it is an urgent challenge for our country and our world. Our leading scientific organizations say so. Our national security leaders say so. All of our National Laboratories say so. Major American businesses say so. Religious leaders of all faiths say so. Pope Francis certainly said so last week. But the Senate is jammed by persistent, meretricious climate denial. The denial comes in many guises, but, like a compass, all the denial points in the same direction: whatever helps the fossil fuel industry keep polluting. That is the true north of climate denial—whatever helps the fossil fuel industry. Look at the fossil fuel money pouring into the Republican Party and tell me this is a coincidence.

We have Senators who deny that anything is happening, who say it is a hoax. We have Senators who deny that we can solve this. We have Senators who deny their faith in the American economy to win if we innovate. We have Senators who simply shrug and say: I am not a scientist. A bunch of Senators say: Don't even worry about it; climate change has stopped. The junior Senator from Florida tells us, "Despite 17 years of dramatic increases in carbon production by humans, surface temperatures [on] the earth have stabilized." The junior Senator from Texas proclaims that "satellite data demonstrate for the last seventeen years, there's been zero warming. None whatsoever."

Let's leave aside for a moment the cherry-picked data this conclusion is based on, which leaves out the oceans, which cover a mere 70 percent of the Earth's surface. I will get back to oceans in a minute. But even this cherry-picked data needs a trick to deny the long-term trend. Using their trick, you could convince yourself climate change has stopped six times in the history of this increase from 1970. It is easy to do. You pick a spot here and you pick a spot there, and in the variability you make it a flat line and you say: There, you see a pause. The problem is that these manufactured pauses keep climbing.

When this bogus climate pause idea was trotted out in an op-ed in the Providence Journal, my home State paper, PolitiFact quickly determined that it uses "cherry-picked numbers and leaves out important details that would give a very different impression."

When we look at the linear trend for this whole data set, from 1970 to 2013,

no one can deny that the Earth is warming. Research shows that climate change is marching on. The past decade was warmer than the one before that, which was warmer than the one before that. Seventeen of the 18 hottest years in the historical record have occurred in the last 18 years. NOAA and NASA count 2014 as the hottest year on record, and so far 2015 is on track to be even hotter than 2014. Fluctuations do not statistically alter the trend.

It is a disservice to the truth and to this Senate to suggest that this heralds the end of climate change. As noted UC Berkeley physics professor Richard Muller put it, "When walking up stairs in a tall building, it is a mistake to interpret a landing as the end of the climb."

Plus, for what reason would it have stopped? There is no basis for the pause. We know why it is happening. Global warming is caused by carbon pollution. We have known that science since Abraham Lincoln wore a top hat around this town. That is not news. And our carbon pollution sure hasn't stopped. We just broke 400 parts per million of carbon in the atmosphere for the first time in the history of the human species.

There is no intellectual basis behind the pause theory. These claims of a climate change pause have been debunked. Just a couple of weeks ago, researchers from Stanford University published a study: "There is no hiatus in the increase in the global mean temperature, no statistically significant difference in trends, no stalling of the global mean temperature, and no change in year-to-year temperature increases." In other words, there is no pause.

A different study prepared for the U.S. Climate Variability and Predictability Program reviewed this so-called pause data and said this: It "not only failed to establish a trend change with statistical significance, it failed by a wide margin. [A]ny argument that global warming stopped 18 or 20 years ago is just hogwash," said one of that report's authors—just hogwash. When legitimate scientists and statisticians examine the data for global mean temperature, they don't find any so-called pause.

This chart I have in the Chamber shows global average temperatures since the late 1800s, which is about the time we began burning fossil fuels in the Industrial Revolution. In yet another study out this month, researchers did a little test. They showed this chart to 25 economists, but instead of temperature they told the economists that the chart showed world agricultural output. That stripped the data of any political baggage of climate change. It made this a simple statistical question: Does this chart show that the measured phenomenon—climate change, temperature, world agricultural output—does this chart show whatever the measured phenomenon is stopped in 1998? The economists

looked, and they flatout rejected that conclusion. What they agreed was that claiming the phenomenon had stopped would be misleading and ill-informed.

So why did this pause theory appear that is a mistake, that is hogwash, that is based on cherry-picked numbers all toward a conclusion that is misleading and ill-informed? Why? Because the big carbon polluters and their allies in Congress don't want us to act. So we keep getting this mischief fed to us.

The enterprise that performs that evil task of feeding mischief into this debate is perhaps the biggest and the most complex racket in American history. It is phony. They cherry-pick a handful of statistically insignificant data points and tell us the whole problem went away on its own. Then the real scientists take a look at it and say that is bunk. But in the meantime, the polluter enterprise notched a public relations victory. It bought some time to keep polluting for free, and sadly it got some of our colleagues to be party to it.

Telling the American people there is a pause in global warming may lull the gullible to sleep, but it is phony, it is inaccurate, and it is wrong. It ignores the truth. It ignores the science. Basically what it is, is cheesy fossil fuel PR dressed up in a lab coat to look like science, just enough to fool people that little bit.

Now let's turn back to the oceans—that 70 percent of the Earth's surface the other data left out. These data show the decades-long warming of the surface oceans—1960 to 2010. No pause. Remember, the deniers conveniently left all this data out when they cherry-picked their pause data—70 percent of the Earth's surface left out.

The first law of thermodynamics, conservation of energy, decrees that all of that heat in the ocean had to come from somewhere. Research shows that greenhouse gases trap excess heat in the atmosphere and that over 90 percent of that excess heat went into the oceans, was absorbed by our oceans. People who insist that the climate has not warmed in recent decades ignore this one little thing—the oceans, which cover 70 percent of the surface of the Earth. The oceans don't lie. This warming is changing the oceans and our fisheries. Water expands when it warms. That is the law of thermal expansion—unless somebody wants to come and deny that. The seas are rising across the globe. In Rhode Island, we measure it at the Newport Naval Station tide gauge. Basically it is a glorified yardstick. It is not complicated. There is no theory involved. It is a measurement. It says we are up nearly 10 inches since the 1930s. That may be funny to landlocked States, but when there are 10 more inches of sea to be thrown against your shores by a big ocean storm, coastal States take that stuff very seriously. NASA measures it around the world with satellites; it is not just the coastal stations that take

these measures. NASA measures from satellites. We measure the exploding acidity of the seas. The exploding acidities of the sea are directly related to CO<sub>2</sub> absorption—unless people want to deny chemistry. You can put CO<sub>2</sub> seawater in a high school lab and you can make the pH change. That is what we are doing on a global scale, and we don't get to repeal laws of chemistry around here, no matter how powerful the special interests.

Last week, His Holiness Pope Francis called on us to work together to protect our common home. He warned us in his recent encyclical: "Those who will have to suffer the consequences of what we are trying to hide will not forget this failure of conscience and responsibility." But first we have to want to protect our common home. If what we want to protect is the fossil

fuel industry, at all costs, at any cost, we need a priority adjustment.

In our rotten, post-Citizens United, billionaire special interests politics, perhaps the Pope would have had more effect if he had a super Pac, but it shouldn't take a super Pac for us to heed the Pope's warning or to heed the science or to heed our national security leaders or to heed everyone else who has lined up to try to wake us up.

Pope Francis also said "to avert the most serious effects of the environmental deterioration caused by human activity," now is the time for courageous actions and strategies.

Today's New York Times has this headline: "Many Conservative Republicans Believe Climate Change Is a Real Threat." Once you get away from this building and the pernicious influence of the fossil-fuel industry and its

relentless money and threats, it is not a question of ideology, it is a question of special interest influence, and conservative Republicans increasingly understand that this is real. Eleven of them just broke rank in the House.

It is time to come together in good faith to tackle this real and persistent threat—the threat of climate change.

It is time for us to wake up.

I yield the floor.

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ADJOURNMENT UNTIL 9:30 A.M.  
TOMORROW

The PRESIDING OFFICER. Under the previous order, the Senate stands adjourned until 9:30 a.m. tomorrow morning.

Thereupon, the Senate, at 6:06 p.m., adjourned until Wednesday, September 30, 2015, at 9:30 a.m.