

that drain millions of gallons of excess water into the St. Lucie River. Canals C-23, 24 and 25 were built at the urging of the Martin and St. Lucie County citrus growers and developers, who wanted their lands drained at public expense. Together with the C-44 and the St. Lucie Canal, more than 498,000 acres drain through canals into the estuary and lagoon.

These decisions have all combined to seriously add damaging amounts of polluted runoff into the St. Lucie and Indian rivers. There are plans to complete a pair of reservoirs? one on the St. Lucie, the other on the Caloosahatchee? to capture local runoff, hold it and clean it before slowly releasing it to flow into the two estuaries.

What is the hope for the two rivers that are being used as drainage escape routes?

The federal and state governments must pay for the cost of modifications of the eastern dike of Water Conservation 3B to prevent seepage.

The Federal government should use fuel tax revenue to raise Tamiami Trail and build additional bridges to allow water to flow into ENP.

The state of Florida must acquire significant amounts of additional land both north and south of the lake or, at minimum, enforceable easements to contain excessive water until it can be leaked slowly down to the lake from the north and south through a flow-way into the Everglades system.

The gross pollution of Lake Okeechobee must become a state priority. Recent phosphorus loads to Lake Okeechobee have been in the 500-ton range, more than three times the goal of 140 tons. Today, estimates are that so much phosphorus has already been spread in the watershed to keep these heavy loads coming for decades. Today, nutrients from the EAA are less than 5 percent of the total into Lake Okeechobee. More than 90 percent is from the northern Lake Okeechobee watersheds. The failure to control phosphorus runoff is shared by the Florida Department of Agriculture and the Department of Environmental Regulation.

Agricultural and water utility interests must accept the fact that Lake Okeechobee's level must be held below 16 feet and that 'back pumping' polluted water from the EAA even in times of drought must not be permitted. Lake Okeechobee cannot continue to be considered a sewer.

Additional lands within the vast EAA must be acquired by the state and the South Florida Water Management District to construct major additional storage capacity and pollution control marshes that will dramatically reduce the nutrients flowing off the sugar cane plantations into the Everglades system.

The sugar cane plantations should be forced to control and treat the thousands of gallons of polluted water on their land before they discharge it into the waters of the state. They should pay a far greater share for cleaning up their wastes for the needed additional pollution control marshes.

These are tall orders, but think for a moment before we continue to rail against the Corps' decision to lower Lake Okeechobee to protect the integrity of the Hoover Dike.

Everything on my "must do" list represents one week of the Afghanistan War expenses.

Everything on my wish list is obtainable.

Our congressional delegation has significant power in Congress. Our governor and Florida commissioner of agriculture are very persuasive with our legislature, even in times of recession.

Despite the need to reduce the incredible national deficit, don't you think manmade disasters like what is threatening our rivers and the Everglades ecosystem are worthy of national and state investments?

Mr. NELSON. Nat recommended focusing on projects like bridging the Tamiami Trail, which is U.S. 41—virtually a dike across the southern peninsula of Florida. It is now being bridged, first with a mile-long bridge, and now—under construction—with a 2½-mile bridge so the water can flow under the road into the water-starved Everglades National Park.

He recommended focusing on projects like restoring the Kissimmee River to its natural meandering state. Half a century ago, when all the emphasis was on flood control, getting the water off the land, they took this meandering stream called the Kissimmee River that cleansed the water as it oozed south in all of the marsh grasses, and what did they do? They dug a straight ditch. Nat was one of the leaders in advocating restoring the river to its natural meandering state so that by the time the water gets to Lake Okeechobee, it will have been cleaned up by natural processes.

Both of those projects—Tamiami Trail and the Kissimmee River—are now well underway, and we are already seeing the benefits to the environment and to the wildlife.

Nat also wrote about the importance of water storage and treatment projects both north and south of the lake—a refrain this Senator often repeats as well. That is why I not only respect and appreciate so much what Nat contributed to our country and to our State but also loved him as a friend. His untimely death today in an accident in Canada is a huge loss. Nat and I had been so focused on advancing this new reservoir project south of Lake Okeechobee. It saddens me so much to announce this good news at the same time that I announce the death of one of the Nation's true environmental champions. In the years to come, as we go about actually constructing that reservoir, it would be a fitting tribute to name that project in Nat Reed's honor. All we can do is try to continue his life's work protecting Florida's unique environment.

Mr. President, I yield the floor.

The PRESIDING OFFICER. The Senator from Rhode Island.

#### CLIMATE CHANGE

Mr. WHITEHOUSE. Mr. President, I spoke before the Fourth of July recess about two financial risks that are coming our way thanks to not getting anything done on climate change.

One, of course, is the risk to coastal properties—not something the Presiding Officer has to worry too much about given his home State but something that Rhode Island, the Ocean State, has to care a lot about and that the distinguished Senator from Florida and his constituents have to care a lot about.

There is a point where rising sea levels intrude on the saleability, the mortgageability, and the insurability of houses. None other than Freddie Mac, the huge Federal housing corporation, is predicting that there will be a coastal property meltdown.

The other risk is that of a carbon bubble. There is a lot of talk in the economic literature about a carbon bubble. One recent financial study reports that "the potential effects of a carbon bubble on financial stability have been recently discussed in the academic literature and are increasingly on the agenda of [bank] regulators and supervisors." Indeed, in an official statement, the Bank of England has warned that "investments in fossil fuels and related technologies . . . may take a huge hit." That huge hit is the other side of a carbon bubble: It pops, and you have a crash. So let's look at the prospects for not just a carbon bubble but a carbon crash.

There are several elements in the runup to a crash. Some of these we witnessed in the crash of the housing bubble back in 2008. When these conditions exist, we should take warning.

One condition is whether you can trust the players. In the housing crash, the rating agencies were in bed with the banks, and you couldn't trust their risk evaluations. The whole thing was cooked. The big fees the rating agencies were taking also took their eye off the ball, and they gave wildly erroneous ratings to high-risk investments. So at the heart of the 2018 housing crash was a failure of trustworthiness.

Can we trust the fossil fuel industry any better than those rating agencies? There is no reason to think so, and there is plenty of reason to think not. This is an industry that has been lying about fossil fuel's effect on our climate for decades, and once you get used to lying about one thing, it is hard to contain the spread of the rot. Exxon even once gave its CEO the infamous, phony Oregon Petition, which urged the United States to reject the Kyoto Protocol, to cite to shareholders at an annual meeting.

I have spoken before about what I consider to be the untrustworthiness of Exxon's response to the BlackRock shareholder resolution, which required Exxon to report the predicted effect of climate policies on Exxon's business model. As fossil fuels are priced out of the market by renewable energy and as nations enact carbon emissions restrictions, fossil fuel reserves now claimed as assets by energy companies may become undevelopable stranded assets.

In a nutshell, Exxon seems to have wildly—indeed, so wildly, you can only conclude deliberately—overestimated the adoption of carbon capture utilization and storage, wildly underestimated the adoption of electric vehicles, and wildly underestimated renewable energy growth, all to reach its rosy conclusions that its assets were more or less secure.

On the subject of trustworthiness, right now big oil companies are still being untrustworthy, telling the world they want a price on carbon, while at the same time telling their political fixers in Congress to kill any such thing. Who knows how much they push around their analysts and others who

are curious about a carbon bubble. What we know is that trusting this industry is asking a lot. That is condition one for a bubble in a crash—untrustworthy actors.

Condition two is market failure. Markets usually correct and have a smoothing effect. If there is market failure, markets can go off course until the correction comes, and then the correction is so immediate and so big that it amounts to a crash. There is market failure in fossil fuel that props up this bubble. Indeed, there are several. The biggest is that the fossil fuel industry rides on what the IMF calculates is a global multitrillion-dollar annual subsidy: \$700 billion in subsidy every year in the United States alone, says the International Monetary Fund. That subsidy massively warps the operation of the market.

There is also what appears to be a methodological issue. The oil industry is ordinarily measured financially by net asset value analysis. As one paper noted, this is an “industry valuation methodology [that] assumes full extraction of fossil fuel reserves.” A methodology that assumes full extraction of fossil fuel reserves becomes a problem when the question is whether extraction of those reserves is even possible.

There is also what I would call a “massiveness factor” at work here. Lehman Brothers and Bear Stearns were so massive that it was hard to imagine them vanishing, but they did. The market value of fossil fuel reserves that can’t be burned is around \$20 trillion, according to the World Bank. That is such a big wipeout that it is hard to comprehend, let alone anticipate. People wait until tomorrow. Then, the tomorrows pile up into a bubble, and then the crash comes when the first person panics and everybody runs.

One other market failure is actually how the crooked political pressure of this industry is causing us not to focus on the 2-degree Celsius ceiling that scientists warn us about for global warming, or, actually, safer yet is the 1.5-degree Celsius ceiling, which burning existing reserves will blow us through. We cannot have both a safe planet and full extraction, and the fossil fuel industry is choosing extraction.

That political castle of climate denial will fall sooner or later. It is false. Not only is condition one met—untrustworthy players—but condition two is met: There is a massive, multiple market failure in fossil fuel awaiting correction, which brings us to condition three: The energy market is undermining fossil fuels as a technology.

We are reaching a tipping point. Here is Lazard’s cost curve for onshore wind energy. It shows, over 8 years, a 67-percent decrease in cost. This line shows the cost of wind energy steadily declining from 2009 until 2017.

At the same time these wind costs were dramatically declining, utility-

scale solar costs and rooftop solar costs also declined dramatically. This line represents rooftop solar costs. This line below it represents utility-scale solar costs. Again, there was a percentage decrease of 86 percent.

New solar and wind energy projects are already becoming more economical than existing coal plants, as we just saw in Colorado. New solar and wind projects now compete on price with new natural gas plants, as a recent auction in Arizona showed.

The cost trajectory for renewables continues steeply downward. When you compare U.S. wind and solar to other energy sources, you see the trend is clear, and here is the result. On cost, the lowest cost providers are onshore wind and utility-scale solar. More expensive than them is natural gas. More expensive is coal. More expensive still is nuclear. That is not counting the subsidy. That is apparent price.

This same trend is also happening globally. This graphic is prepared by the World Economic Forum, and it shows the same thing for renewables. In particular, here is the rapidly declining cost of solar photovoltaic. Here is the cost of coal, and here, right now, they cross over. We are at the tipping point, where it is cheaper worldwide to develop solar and wind than it is to burn coal.

Stanford economist Tony Seba studies economic disruptions, and he likes to see these two photographs. It will be hard to see from where you are. This is Fifth Avenue in New York City in 1900. If you look at the photograph, you can see that every vehicle there is drawn by a horse. In 1900, every vehicle was drawn by a horse. If you look very closely, it appears there is one leading-edge, non-horse-drawn vehicle. The whole street is filled with horse-drawn carriages and wagons in 1900. Thirteen years later, on Fifth Avenue in New York City, every single vehicle in that street is now an automobile. In only 13 years, there was a complete transition in transportation. If you were a harness maker, this was a tough transition for you. In just 13 years, the world changed, illustrating the point that major economic disruptions can take place fast. Think land lines and cell phones, if you want a modern example.

People still ride horses, and they probably always will, but our transportation sector shifted rapidly from horse-drawn conveyance to automobiles because horse-drawn conveyance was an antiquated technology that got left behind. People still have landlines. I have one at home. We hardly ever use it. The communications industry shifted rapidly, as antiquated landline technology got left behind.

As the energy market shifts to cleaner, cheaper, more efficient renewable technologies, fossil fuels soon will not compete in the marketplace. There is our third condition: not just untrustworthy players, not just market distortion, but also a technological tipping point making the fossil fuel technology obsolete.

There is a fourth condition. This fourth condition basically puts an accelerator on condition three in certain sectors of the energy market. Condition four is based on the fact that the marginal cost of production of a unit of fossil fuel energy varies considerably. Some fuels are low cost and high cost to produce. Some geographical locations are low cost and high cost locations. In this variance, coal is pretty much dead already at the hands of oil and gas, purely because of cost. We can set coal aside for a moment.

In the world’s oil markets, much of this cost of production variant is masked right now by energy cartels that prop up the price of oil. Cartel behavior to prop up the price of your product makes economic sense if you can maintain monopoly pressure to prop up the price, but it also only makes sense for the cartel participants if you can anticipate that you can sell your product out into the future. You hold back your output to drive up price and to maximize your return in the hopes that in the future you will be able to keep doing the same thing and you will be able to sell your product.

If you are not sure that there will be another day to sell your product at the propped-up price, you start to get anxious about your product becoming stranded and about your product becoming valueless. At that point, it doesn’t make sense to engage in cartel behavior. What makes sense is to maximize your output and to sell as much as you can while your commodity still has value—basically, to have a fire sale.

Low-cost fossil fuel energy producers would be rational to drop their prices and maximize their market-share, fire-sale pricing while their fossil fuel still has value. Get the dammed stuff out the door while you still can. That behavior—dropping the cost, pricing at your marginal cost of production, and selling as much of your product as you can—will fend off the inevitable for low-cost producers for a while. However, for those producers that can’t match that fire-sale price, the downward trajectory of their crash steepens catastrophically. As soon as you can’t produce not at the cartel price but at the lowered fire-sale price—as soon as you cannot meet that price—you are out of business. There still is a fossil fuel market. You are just not in it. The bad news for the United States is that this is where much of our market is. Economists looking at this carbon bubble mess warn that high-cost regions like the United States could “lose almost their entire oil and gas industry.” Let me quote that again: “lose almost their entire oil and gas industry.”

To recap about a fossil fuel “carbon bubble,” the players aren’t trustworthy; the fossil fuel markets aren’t efficient in the economic sense; fossil fuels as a technology are now tipping into being obsolete, priced out by renewables; and our U.S. industry is particularly vulnerable to an accelerated market meltdown when the tide shifts.

Those four conditions don't make a great scenario. That is a warning we need to start considering. What should we do?

Everyone seems to agree on two safety measures. First, there is one sensible hedge: Don't invest all in fossil fuel. Invest more in renewables. Be on the winning side of the shift. Start making carburetors, not just a mule harness. There is also one important, sensible economic strategy; that is, to manage the transition.

As one paper on this subject concluded, "The issue of concern is the lack of any transitional strategy. . . . Inadequate, conflicting or slow responses to climate change in investment and finance can entail risks that could be avoided under a more orderly transition."

You could equate it to jumping out of an airplane. You are going to end up on the ground anyway. Wouldn't you like a parachute to make it a gentler and more survivable voyage? What is the parachute but a transition plan for managing this shift? The best one is a price on carbon.

This takes us back to the discreditable conduct of the fossil fuel industry, which, far from leading through this transition, far from trying to build itself a parachute, is busily still trying to deny that there is any such transition, including, in my view, their falsely reporting to shareholders that this is all going to be OK, and we are going to be able to extract and sell all of our reserves. This is an industry that is still fighting like a wounded bear to prevent anyone from organizing the orderly transition they need.

At some point, there has to be a grownup in the room. The fossil fuel industry has shown no capacity for that role, which makes it up to us in Congress to help America prepare for both the predicted crash in coastal property values, as sea level begins to enter the mortgage and insurance horizon for those properties, and the predicted carbon bubble we see coming and that economists write about coming that we can manage our way through if we are responsible. In that regard, it is time for us to wake up.

I yield the floor.

I suggest the absence of a quorum.

The PRESIDING OFFICER (Mr. LEE). The clerk will call the roll.

The legislative clerk proceeded to call the roll.

Ms. HIRONO. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

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

#### NOMINATION OF BRETT KAVANAUGH

Ms. HIRONO. Mr. President, there was a time when Blacks and Whites couldn't get married or go to the same school. The Supreme Court changed that. There was a time when gay people could be arrested for loving one another and when it was illegal for them to get married. The Supreme Court changed that. There was a time when

thousands of women died from having illegal, unsafe abortions. The Supreme Court changed that.

The Justices on the Supreme Court matter to each and every one of our lives. That is why there is so much concern over President Trump's nominee to fill the vacancy on the Supreme Court—Judge Brett Kavanaugh.

Rightwing groups, like the Heritage Foundation and the Federalist Society, have been working for decades to set the stage to pack our Federal courts with ideologically driven conservatives. They have invested millions of dollars and decades of time in this effort. These two organizations have played the primary role in vetting and selecting Donald Trump's nominees to the Supreme Court. By including Judge Kavanaugh on their list of potential nominees, these two organizations certainly expect that he will reflect their own ideological perspectives, which include overturning *Roe v. Wade* and repealing the Affordable Care Act, the ACA. They certainly expected Neil Gorsuch—another name on their list—to do the same when he got on the Supreme Court. In the short time he has been on the Court, Justice Gorsuch has not disappointed them.

Is it any wonder that millions of people across the country are raising concerns over the nomination of yet another nominee on the Federalist Society and Heritage Foundation's wish list? Isn't it reasonable to conclude that Judge Kavanaugh will also reflect the ideological agendas of these organizations?

This is why Judge Kavanaugh does not deserve the benefit of the doubt. He has the exceptionally high burden of proof to assure the American people he can be fair and objective. The Senate has a constitutional obligation that is equal to the President's to vet a President's nominee to the Supreme Court and fulfill its advice and consent obligation responsibilities. I take this responsibility seriously because a fight for the future of the Supreme Court will have ramifications for so many issues that we care about.

Our Federal courts have been at the center of the Republican Party's strategy to dismantle, gut, and weaken the Affordable Care Act, the ACA, since it was passed over 8 years ago. The Supreme Court narrowly upheld the constitutionality of the ACA's core provisions in 2012. The ACA provides affordable, accessible health insurance to millions of people in our country who would otherwise not have such insurance. But the Republican Party's effort to sabotage this critically important law through the courts continues unabated.

Right now, Texas and 19 other States have a lawsuit pending in Federal court that claims, among other things, that the Affordable Care Act's protections for Americans living with pre-existing conditions—illnesses such as diabetes, asthma, and cancer—are invalid. The Trump administration filed

a brief supporting Texas in its attack on the ACA's protections for millions of people in our country with pre-existing conditions. This case will likely end up before the Supreme Court. If Texas wins its lawsuit, the healthcare of millions of Americans will be at stake—meaning one in four Americans could either lose their health coverage or pay exponentially more for healthcare.

The outcome of this case is personal to millions of Americans and their families, and it is certainly personal to me. A little over 1 year ago, I was diagnosed with kidney cancer. I was fortunate. I have health insurance that allows me to focus on fighting my illness rather than worrying about how I will pay for my treatment. I now join the millions of Americans living with a preexisting condition—illnesses that don't discriminate on the basis of age, gender, or political ideology.

As this case makes its way to the Supreme Court, the American people should not forget that Donald Trump and this administration have been openly hostile to the ACA, a law that has helped millions of people. In fact, the President has openly bragged about all the things he has done to gut the ACA. Does the President expect his nominee, Judge Kavanaugh, to protect the ACA? I don't think so—quite the opposite.

The next Supreme Court Justice will also play a determining role in the future of a woman's right to make her own reproductive health decisions. I remember vividly the stories of women dying in America, unable to access safe, legal abortions. The fight for reproductive freedom, prompted by these stories, was one of the reasons I got involved in politics.

When I was in college, the first letter I ever wrote to Hawaii's congressional delegation was about abortion at a time when our State legislature was debating whether to legalize abortion. Hawaii became the first State in the country to do so. Those of us who lived in a time before *Roe v. Wade*, when a woman was forced to have a child against her will, are deeply concerned about the future of a woman's right to have an abortion, to have that freedom of choice.

Throughout his campaign for the Presidency, Donald Trump repeatedly promised to appoint Justices to the Supreme Court who would favor overturning the core holding in *Roe v. Wade*. The Heritage Foundation and Federalist Society share this goal, and it is not a stretch to assume that the names they included on their Supreme Court wish list hold the same views.

Judge Kavanaugh's record on this issue is deeply troubling and of significant concern. Last year, Judge Kavanaugh issued a dissent in a case that granted a 17-year-old immigrant in the custody of the Department of Health and Human Services, HHS, the right to get an abortion. Kavanaugh argued in his dissent that holding the