

# Trumping the Climate: Coming in Hot

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Recorded on June 2, 2017



**Announcer:** This is Climate One, changing the conversation about energy, economy and the environment.

In early June, President Trump announced that he'll start to withdraw the United States from the Paris Climate Agreement.

**Donald Trump:** As someone who cares deeply about the environment, I cannot in good conscience support a deal that punishes the United States.

**Announcer:** The decision disappointed many people as a missed opportunity.

**Jim Sweeney:** I don't think his pulling out of the climate agreement will actually make much difference on climate. I think it makes much more difference on giving up our leadership in the world.

**Announcer:** But despite the government's position, US businesses are embracing a clean-energy future.

**Amy Jaffe:** This idea that we could somehow go back to traditional industry is just a wrongheaded idea because we have these technology transformations that are truly revolutionary.

**Announcer:** Trumping the Climate - Coming in Hot. Up next on Climate One.

**Announcer:** What does the Trump administration's withdrawal from the Paris climate accord mean for US climate leadership? Welcome to Climate One - changing the conversation about America's energy, economy and environment. I'm Devon Strolovitch. Climate One conversations - with oil companies and environmentalists, Republicans and Democrats - are recorded before a live audience and hosted by Greg Dalton.

In early June, President Trump announced he'll start to withdraw the country from the Paris Climate Agreement reached by 195 countries, claiming it disadvantaged the United States. In fact the deal

allows each country to set their own customized and voluntary path toward energy fitness. The U.S. plan includes a mix of more efficient cars, cleaner power plants and a variety of technology and actions by cities and states. Other countries took different approaches depending on their industries, natural resources, culture and politics.

To talk about the Paris agreement, the Trump administration, and more, Greg is joined by three guests. Gil Duran is a former spokesman for California Governor Jerry Brown and U.S. Senator Dianne Feinstein. He's a current advisor to billionaire climate advocate Tom Steyer and works on communications with author and linguist George Lakoff. Amy Jaffe is Executive Director of Sustainability at the University of California at Davis Graduate School of Management. For 18 years, she was Director of Research on Energy and Geopolitics at the Baker Institute of Public Policy at Rice University in Houston. Jim Sweeney is director of the Precourt Energy Efficiency Center at Stanford University. He's a professor of management and engineering and served in the Federal Energy Administration under President Gerald Ford.

Here's our conversation about Trumping the Climate: Coming in Hot.

**Greg Dalton:** We're talking about this on the day that President Trump announced the exit from the Paris climate agreement. I want to begin with what he said today. This is President Trump announcing his intention to over the next few years withdraw the United States from the Paris climate accord. Let's listen.

[Start Clip]

**Donald Trump:** In order to fulfill my solemn duty to protect America and its citizens, the United States will withdraw from the Paris climate accord. As president I can put no other consideration before the well-being of American citizens. The Paris climate accord is simply the latest example of Washington entering into an agreement that disadvantages the United States to the exclusive benefit of other countries leaving American workers, who I love and taxpayers to absorb the cost in terms of lost jobs, lower wages, shuttered factories and vastly diminished economic production. Thus, as of today, the United States will cease all implementation of the nonbinding Paris accord and the Draconian financial and economic burdens the agreement opposes on our country. Not only does this deal subject our citizens to harsh economic restrictions. It fails to live up to our environmental ideals. As someone who cares deeply about the environment which I do, I cannot in good conscience support a deal that punishes the United States.

[End Clip]

**Greg Dalton:** President Trump announcing withdrawal of the Paris climate accord in early June. Jim Sweeney, a lot in there lost jobs, but first of all, how did you feel, you knew this was coming. How did you feel when you heard about that and saw that?

**Jim Sweeney:** Well most graphically it was as if I was watching a spider with a fly sucking the life out of it. And I said this was the symbol of our nation speaking there. It was very sickening.

**Greg Dalton:** You thought it was a sad day.

**Jim Sweeney:** Look, we all saw it coming. It was a sad day because, one, climate matters, two, because the Paris agreement wasn't going to hurt our economy in the slightest. And because finally, we have given up world leadership on yet another thing and I think we've ceded world leadership on this to Germany and China. And so it was really in many ways very sad day for the United States above and beyond the climate issues. Because I don't think his pulling out of the climate agreement

will actually make much difference on climate. I think it makes much more difference on giving up our leadership in the world.

**Greg Dalton:** Amy Jaffe, how did you feel when you heard the news, when you saw that statement about draconian burdens and those sorts of things.

**Amy Myers Jaffe:** You know, I was in line buying my lunch and I was sort of reading it on the sort of teleprompter, you know, where the TV is on silent. And it was almost surreal, you know, I'm always an eternal optimist and I really even though every day and my Twitter feed is like, oh yes, he's gonna pull out of Paris. I've really kind of felt in my heart that it's such a stupid thing to do that in the end it wouldn't happen, right. But I can't -

**Greg Dalton:** You thought Rex Tillerson can talk him out of it.

**Amy Myers Jaffe:** You know, the truth is people were saying that Rex Tillerson was gonna talk him out of it. And, you know, if you think about how far we've come in terms of corporate response to climate change and all these things. The idea that as a country we were counting on Rex Tillerson to talk some sense into the president, you know, is really sort of an amazing statement but, you know, I talked to some journalists as a sort of unwinding before, you know, today and really trully, a lot of climate policy in this country is both designed and implemented at the state and city level. They're at the forefront always have been in the forefront and you just have to roll the clock back a little in time and remember that under President George W. Bush, a lot of states took initiative. And I used to tell people when I give talks in Europe and people are so upset about American policy, about Kyoto. And I was able, you know, U.S. policy on climate is not actually made at the federal level. And even if you look at clean power plan, which was the fundamental showpiece of President Obama's signatory to this climate agreement in Paris, you know, most states in the United States have made their commitments under the clean power plan. And most states are not gonna unwind those policies because they're driving innovation in the state, they're attracting corporations that have already made commitments to renewable energy, people are seeing it as future jobs. We've got China with a carbon price, we have Europe with strong technology drive coming from their car industry and from their trucking industry and from other segments. And so really truly when the president says that there were all these draconian things that his predecessor agreed to, a lot of those things are gonna stay in place. And one last point, not to overstate this but the one thing that I might have guessed, as an energy expert that the president would unravel and would make it hard for us to meet our climate obligation on the Paris, was that President Obama committed to have the oil and gas industry capture their methane leakage. And our Congress surprisingly sustained that policy, right and so the president couldn't even undo that proposed regulation. So it is a little bit disingenuous to talk about these onerous things that we agreed to since we're probably gonna do most of those things.

**Greg Dalton:** John McCain came in and offered a decisive vote on that keeping those methane regulations in place. Gil Duran, let's talk about three different touchstones, democracy, economy and the environment and the narrative that's been put forward here by the president saying that action on climate hurts jobs. Touch those three stones for us.

**Gil Duran:** Well, the whole Trump experience has been a waking nightmare and so this is just the latest installment. But at this point it's sort of something we are becoming accustomed to sadly because it's constant it doesn't stop. And so really to me the most striking thing because we knew this was coming was that every single thing Donald Trump said was the opposite of the truth. It was the reverse of the truth. And this is very deliberate and it's by design it's to tell this other reality that in reality when we talk about the role of the economy and with the role climate action place in the economy, it's our biggest opportunity. And China certainly realizes that what Trump is doing is against prosperity. When we talk about democracy and standing up and doing what's right for the

American people, this action only serves a very narrow interest of American society, people in fossil fuel companies. This is the opposite. This is against the best interest of the American people. It's against the democracy and we know that majorities of people even in Republican majority state supported staying in Paris and support climate action. And so, you know, everything he said was the opposite of the truth and we see this across the board and all of the issues. And to me, that's the scariest thing about it is when you're in a democracy and you're doing nothing but lying what is your actual strategy and what is your endgame.

**Greg Dalton:** Jim Sweeney, there's an amazing array of people and institutions that came out in recent days in support of the Paris climate agreement. As Amy just mentioned, Rex Tillerson and former CEO of Exxon Mobil, Gary Cohn, chair of the National Economic Council, Arch Coal, Peabody Coal, Chevron, Exxon, ConocoPhillips, IBM, Coke and Pepsi, when are they on the same side, Lindsey Graham, John McCain, all in favor of Paris. And when the president and it was clear he was gonna pull out of the Paris climate agreement, Jeff Immelt, CEO of General Electric said "Climate change is real, industry must now lead and not depend on government." So where does the industry go, Jim Sweeney?

**Jim Sweeney:** I think this is actually consistent of what's been happening over the last 20, 30 years now. What I found as quite remarkable is that the energy per dollar of GDP in the U.S. economy has been declining about 2% a year average for the last 40 years since the oil crisis in 1973. Some of that was federal government like fuel efficiency standards. Some of it was what the state and local governments did California has done a lot. But a large amount was what industry has been doing in innovating in ways to reduce energy in the products. General Electric has been a wonderful example. I mean even the airlines which we all love to hate it's interesting to know that since the oil crisis in '73, they use half as much energy per seat mile as they did in '73. But per person mile, they use a quarter as much energy and this has been all private sector.

**Greg Dalton:** How does that math work, some people standing? How does that math work?

**Jim Sweeney:** Yeah, the planes are a lot fuller if anybody's ever noticed.

**Greg Dalton:** Okay, okay.

**Jim Sweeney:** But its dynamic pricing, you check on the price of the flights one day, you buy it, go to buy it three days later, it's an entirely different price. You try to use your frequent flyer miles and you can't use it on this flight, but you can use it on that flight. It's all part of a large-scale optimization problems that the airline use in order to keep the planes full and so was to make more profit. But in the act of making more profit it uses less energy per seat mile. So right now, Jeff Immelt was absolutely right. Industry is going to take a lead in innovation, but so are states and local governments. You see cities around the United States and Canada that are taking very innovative steps in order to have more efficient use of energy or have cleaner energy. And I kind of keep focusing on more efficient use of energy because by a factor of 10 to 1 that's how we decarbonize our economy much more than the cleaner energy has been energy efficiency. So it's been industry, state and local governments and individual households with change of attitudes that wasn't going to have to keep happening, and people gotta have to say just because the federal government is not doing it, just because the federal government leadership have their head in the stands, we don't have to. Because after all, an industry making a decision on its investments in new technologies is not gonna look just four years in advance. They look a long ways down the road. So people have to believe that after Trump, whenever that Trump administration ends, I'm not sure how long it'll take but however long it will take after that they're gonna to have to live with the reality. And so I think industry is going to look beyond this.

**Announcer:** We're hearing about the Trump administration and the Paris climate agreement. This is Climate One. You can subscribe to our podcast at our website: [climateone.org](http://climateone.org). Greg Dalton will continue his conversation in just a moment.

**Announcer:** We continue now with Climate One. Greg Dalton is talking about the Paris climate agreement with Gil Duran, an advisor to billionaire climate advocate Tom Steyer. Amy Jaffe, Executive Director of Sustainability at the University of California Davis Graduate School of Management. And Jim Sweeney, Director of the Precourt Energy Efficiency Center at Stanford University.

Here's your host, Greg Dalton.

**Greg Dalton:** Texas is one state that's moved ahead on clean energy, surprising to many people. In 2014, current Energy Secretary Rick Perry came to Climate One and talked about Texas leading the way on renewable energy. Let's listen to then Governor Rick Perry.

[Start Clip]

**Rick Perry:** We started a boom in Texas in the renewable energy sector. Today, the nation's leading developer of wind energy is not one of those progressive states on the East Coast or the West Coast. The number one wind energy producing state in the nation is along the Gulf Coast, it's in Texas. We built a new network transmission lines to bring that energy from the areas of the state where it is best produced which is up on the Panhandle of Texas to the population centers over in the eastern side of our state. And our state is friendly to the development of all forms of energy from wind and solar to clean coal to natural gas and to nuclear for that matter.

[End Clip]

**Greg Dalton:** Then Governor Rick Perry talking about clean energy. Amy Jaffe, you worked in Texas, a longtime Texas energy. A lot of Texas ranchers love wind on their ranches. Is Texas gonna keep going forward? Talk to us about green energy in the red state of Texas.

**Amy Myers Jaffe:** You know, I think that Texas is going to find the same thing that we're finding here in California. We're making such breakthrough in how to use utility scale batteries to couple with wind and solar, and then have more complicated, you know, software management of the grid. That we're gonna make a lot of things more possible on this whole, you know, I never hear today. You know, people from Texas explain to me "Don't you understand it's intermittent" like you don't even say that anymore because you can see the solutions they're right on the horizon. And honestly, truly, when you go down people want to talk about that so-called S-curve concept. You know, when do we think that some of these technologies, not that they'll hit because we're already deploying them. But when will they start to scale up in terms of their size and impact in the market. And, you know, I like when I go down to Texas, I like to remind people that as proactive as Governor Brown has been, as proactive as industry's been here in California, nothing made it happen faster than the Aliso Canyon accident.

**Greg Dalton:** And that was a big leak of natural gas, methane that massive amounts of methane leaked into the air in Southern California.

**Amy Myers Jaffe:** And made people sick. So the point is that we have reasons why we're gonna do these things and we have market forces that they're gonna bring in the market. And I really think, you know, I mean maybe it's Pollyanna-ish, but I just think, you know, I used to tell people, you know, when I think about some of the things that the president says about certain industries, right. I

mean in the end even the coal industry is going to robotics and self driving trucks. So, you know, when you think about it truly, if somebody came to you and told you that you could save a lot of money on your phone bill if you would go back to a landline and that you could elect the president who would put payphones back in airports and on street corners. Would anybody pick to do that just to be able to pay a \$25 phone bill? No. No one's picking that. Why? Because the phone you are carrying around in your pocket is a superior technology. And if we all went back to payphones, right. No one in China is going back to payphones. People in Latin America are not going back to payphones. People in Africa are not going back to payphones. So this idea that we could somehow go back to traditional industry, right, is just a wrongheaded idea because we do, we have these technology transformations that are truly revolutionary. And the industry understands that. But saying on the flipside to people in California and other states that are really competing in renewables, you know, that same technology revolution is happening in the natural gas industry, right. And so, you know, if the competitive price point for clean technology is going to be that it has to beat natural gas, you know, there is so much natural gas in the United States. I mean the price of natural gas at some point a few years from now in some locations in economics we have this concept, we call it the shadow price. So that's what is in the real world what is the real effective price when you think about everything else that happens in the world. And there are places in Texas and Pennsylvania with a shadow price for natural gas is going to be zero.

**Greg Dalton:** They'll pay you to take it away.

**Amy Myers Jaffe:** They'll pay you to take it away.

**Greg Dalton:** And coal is a very, very small part of the U.S. economy. Jim Sweeney, you've been in this a long time since the 70s. Energy did not use to be a partisan issue until the Obama administration. So tell us how that came, how energy in climate came to be so partisan and areas where Democrats and Republicans have in the past worked very consistently on these issues.

**Jim Sweeney:** I started my time and energy at the time of the oil crisis 1973, 1974 and I was in the Ford administration. Passed and signed into law, the Gerald Ford fuel efficiency standards. The first ever efficiency standard law for appliances a whole group of other laws to move the energy system forward. Then since that time, we've had energy efficiency standards implemented through the Department of Energy expanded or extended by almost every president from Gerald Ford up to Barack Obama. The only person who did not sign such a law was Bill Clinton. So we have four Republican presidents who've extended energy efficiency legislation as well as started the café standards. EPA was founded under a Republican president so up until I would say at the beginning of the Obama administration, pretty much energy and climate was quite bipartisan. You saw some of the leaders of the Republican Party who ran for president supported issues of dealing with climate. Romney wanted to deal with climate issues.

**Greg Dalton:** So did McCain.

**Jim Sweeney:** McCain did as well. But it seemed like once Obama was in, the Republicans in Congress took a view with anything that Obama's for, we're against. And they really seem to have hardened their position during that time. And you see this in healthcare, you see this in climate. It was if Obama has had any successes we're gonna try to rip it down. So sometimes I wonder why it was that Trump right now felt you had to get out of the Paris climate agreement where he's really not gonna make much difference other than giving up a mantle of leadership. Could it be more of a personal thing that he has a vendetta he has to pull down everything that President Obama built up rather than because of any rational thinking? So it was really in that time it's turned around from what I view as a very conservative view. The conservative view is the natural resources of our nation and of the world are worth conserving because they're part of the vitality of a nation. And that's

really sadly is going to pieces.

**Greg Dalton:** Jim Sweeney is Director of the Precourt Center for Energy Efficiency at Stanford. Also, Amy Jaffe from University of California at Davis and Gil Duran, former spokesman for Dianne Feinstein and Jerry Brown, I'm Greg Dalton. Yes, Amy Jaffe.

**Amy Myers Jaffe:** So, you know, I do wanna make this one statement since we're, you know, been sort of negative on the president's comments today. The president did say in his remarks that this climate accord, let India and some of the other developing countries off very easily. And that we're letting them pretend they're part of the accord or pretend maybe is not the proper word but letting them participate in this accord but go forward with tremendous pollution from coal production and use. And he specifically called out India which really was, you know, very hard to get into the accord and was very limited in what they offered. And, you know, even in China the concessions that they made on the coal industry and others were also, you know, fairly constrained. And I do think the president is right. I do think that our negotiators could have been tougher in demanding a better pledge from some of these countries and that there was this excitement to have an agreement in accord and people felt the symbolism of it was important, which I totally agree with. But it does leave some questions about, you know, had we pushed a little bit harder, could we have gotten a little bit more of a commitment out of those countries? And so I understand all the rhetoric that came in the speech today and a lot of it was, you know, very, I don't even know what the right adjective is, right. But I think what I would tell you is, because I always look at what's the opportunity.

**Greg Dalton:** Though the reality is that most of the carbon emission that's ever been emitted up there is red white and blue. Historically, the United States has put far more up there and put much more to the problem -

**Amy Myers Jaffe:** No question.

**Greg Dalton:** - than the poor people of India whose per capita carbon emissions is about 1/10 of like your and my -

**Amy Myers Jaffe:** There's no question that that's true. But in thinking about the global community and the path forward. Having people in India catch up by adding so much and not coming up with solutions to help people in India get access to electricity and services in a way that might be more positive for the climate like I still think there's an opportunity there. I call on the administration to actually actively try to get that opportunity and not just have it be about the United States not making its commitment. Have this actually be turned into a positive where we try to actually get better commitments and maybe even if we get the better commitments by accident because we are so remiss in our leadership that other countries need to step up to the plate and show more leadership, we still need to see more leadership from these countries.

**Greg Dalton:** A bit of a false choice because I mean India has much lower income and that's what hung up the previous climate agreements. Wanna go to our lightning round. I'm gonna ask each of you some quick questions for quick answers. The first part is association. I will mention a noun or a phrase and you're gonna tell me the first thing that comes to your mind. First for Jim Sweeney, Mitt Romney's plan for climate action.

**Jim Sweeney:** Very positive.

**Greg Dalton:** Amy Jaffe, clean coal.

**Amy Myers Jaffe:** No such thing.

**Greg Dalton:** Gil Duran, Scott Pruitt.

**Gil Duran:** Stoooge.

**Greg Dalton:** Amy Jaffe, fracking.

**Amy Myers Jaffe:** Fracking. A pejorative term for a process which is can be done safely, but has caused a lot of problems in many locations in the United States.

**Greg Dalton:** Jim Sweeney, Rex Tillerson.

**Jim Sweeney:** I really was impressed and like Amy I had hoped he would turn Trump around but he failed to do that.

**Greg Dalton:** Gil Duran, California Lieutenant Governor Gavin Newsom.

**Gil Duran:** On the right side of this one.

**Greg Dalton:** True or false. Jim Sweeney, Donald Trump has the - true or false. Donald - for Jim Sweeney, true or false. Donald Trump has the temperament to be president of the United States?

**Jim Sweeney:** I'm just gonna laugh at that one. No, he doesn't of course, not.

**Greg Dalton:** Amy Jaffe, true or false. Fossil fuel companies have funded university research as part of their campaign to protect their profits?

**Amy Myers Jaffe:** You know, that's a very, you know, yes and no. There have been, fossil fuel companies that have funded fundamental science in biofuels, in solar and other things. And that's not to say that there aren't some fossil fuel companies that have funded climate denying but you have to take the whole picture.

**Greg Dalton:** Jim Sweeney, Exxon gave a hundred million dollars for research at Stanford. Fossil fuel company funding has compromised some research independence at Stanford. True or false?

**Jim Sweeney:** Absolutely false. Stanford has had complete control of the big picture. However, complete's a little bit harder. If they wanted to do something really wacky they couldn't get it, but Stanford had great control, and this has greatly advanced the amount of clean energy research going on at Stanford and it's really clean energy researches that's advanced.

**Greg Dalton:** Stanford professor Mark Jacobson had a different answer to that question when he was here saying there was some compromise. True or false, Jim Sweeney. Protests of fossil fuel projects will become increasingly frequent and chaotic?

**Jim Sweeney:** Oh yes. When the federal government does backing out this way the private sector and private individuals have no other option but to go in and protest and do their own thing.

**Greg Dalton:** Gil Duran, true or false. Billionaire investor Tom Steyer is itching to run for public office but he hasn't yet decided which one?

**Gil Duran:** I'd say that Tom Steyer is looking for the best way to be the most effective in terms of helping to push back against some of what's happening right here in the Trump era. And if that includes public office, that's a possibility, but it's not a foregone conclusion.



**Greg Dalton:** How's that for an artful answer. Gil Duran, true or false. Rather than demonizing fossil fuel workers and companies, citizens concerned about the climate should listen more to them and shout less at them?

**Gil Duran:** Not when they've captured our government at the highest levels.

**Greg Dalton:** True or false, Jim Sweeney. You'd like to have a beer with Steve Bannon?

**Jim Sweeney:** And what would I do with the beer.

[Laughter]

Do I have to actually drink it or could I pour it on his head?

**Greg Dalton:** Last one. Amy Jaffe, true or false. You'd like to have Donald Trump over for dinner?

**Amy Myers Jaffe:** Well, so I have to say to everyone. I know a lot of people here are listening and in the audience are from California, but I'm actually a New Yorker. And I remember Donald Trump when he was a young man in New York. And that was a different person I think than we see on the national stage today. And that person was very entertaining, so just saying.

**Greg Dalton:** So that's a yes. Let's give them a round for getting through that lightning round.

**Announcer:** You're listening to a Climate One conversation about the Paris Climate Agreement and the Trump presidency. You can check out our podcast at our website: [climate one dot org](http://climateone.org). Greg Dalton will be back with his guests in just a moment.

**Announcer:** You're listening to Climate One. Greg Dalton is talking about the Paris Climate Agreement in the age of Trump with Gil Duran, an advisor to billionaire climate advocate Tom Steyer. Amy Jaffe, Executive Director of Sustainability at the University of California Davis Graduate School of Management. And Jim Sweeney, Director of the Precourt Energy Efficiency Center at Stanford University.

Here's Greg.

**Greg Dalton:** Gil Duran, let's look to 2018. Tom Steyer has, you know, trying to get advocates and positions candidates in place. What do you see is the electoral map for 18 and are voters really gonna care about this, then, because typically voters don't really have environment and climate top of their mind when they pull that lever.

**Gil Duran:** Well there's plenty of issues to pick from that Trump and his band are creating tremendous amounts of anxiety around. And so I think looking ahead, you know, we need to capture 24 seats in order to take back the house. That's a huge target and I think people are really looking right now planning. It's too early to tell exactly where all the opportunities will be because member we're only six months into this and who knows what the heck is gonna be happening in the next six months that might change the dynamic in some way. You know, a harder job over in the Senate where only a Republican seats are up in a lot of those you're gonna be really tough not as many pick up opportunities. But those of us who do politics for a living, our one solace is that we do have 2018 right around the corner, and that would be the biggest opportunity to just start undoing some of what's been going on in the past six months.

**Greg Dalton:** Jim Sweeney, Jeff Bingaman was a longtime Democratic senator from New Mexico, chair of the Senate Energy Committee. He talked to you. He now has an affiliation with Stanford.

What did he tell you about his Republican colleagues and what they think and know about climate?

**Jim Sweeney:** I thought it was very interesting. The question was, why is it a litmus test of the Republicans in Congress to not believe in the climate science. And he said your question is wrong. Other than Senator Inhofe among the senators, they all understand the climate issues. They believe in it. They believe that climate problems are real. They're getting worse. Humans are causing it. But they also believe in one other reality that if they admit that they believe in climate issues once they get back to the district, they'll be accused of being a moderate. And if they get accused of being a moderate, you don't need half of the population in your district to get you out of office. All you need to have is a little over half of the people of your party to attack you, to get out of the office. And then if you recognize that there is a group of people who feel quite passionately about being very right, right, right that will then get together and push you out, therefore the rational response of most of the members of the Senate is don't talk about climate and act as if they don't believe in the science even if they do. The unfortunate element about this is some of my academic colleagues and me in the past thought maybe if we educate the members of Congress that will fix the problem. Well, they're already educated. The only thing that's gonna to turn it around is when we now have a majority of the Republicans in the various districts that say we gotta do something. These big storms that are hitting us are getting too bad, or the sea rise that are lapping at our coast are getting too high and once you get enough of those turnovers, I hope they have the Republicans totally flip over in their attitudes.

**Greg Dalton:** Carlos Curbelo is a Republican member of Congress who represents the southern tip of Florida. Don't buy any property there. And he is one of those people, but Gil Duran this gets to the point one of the things that makes this credible, this threat that Jim Sweeney is talking about is Citizens United in the prospect of big money coming in from out of a district to fund a primary challenge against a Republican who takes a stand on climate. So let's get to the campaign funding piece of this.

**Jim Sweeney:** Bob Ingliss, a poster child, his kids convinced them that climate change is real and he started doing a lot of research. He said, boy it's real. And he came out with our position, gone. Republican members of the House represented -

**Greg Dalton:** From South Carolina. And people saw Bob Ingliss get pushed out by a Tea Party challenge. He didn't want to be that. So Gil Duran, campaign funding is that the problem?

**Gil Duran:** Yes. I think one of the things that's frustrating for people who care about science, who accept science, who care about this particular issue is that for many people this is actually not about science. This is about ideology and it's about an extreme anti-public ideology. An ideology, what I call market worshipers who want everything to just be based on what they call a free market which happens to be stacked completely in their advantage. They want no rules. They want no protections. They want to be able to do exactly what they want when they want to do it. And you have these billionaires. Many I think of the Koch brothers' annual meeting is now up to 500 members it was 18 maybe, you know, 10, 15 years ago, who are stockpiling their money in order to put it into elections, in order to create things like the Tea Party movement, like Americans for Prosperity that just constantly pressure people to not accept anything that is good for most people but that's good for this small sliver of very wealthy interests and that includes rejecting climate science. It includes rejecting the idea of public funding for things like schools, rejecting health care coverage for the majority of Americans. And that's what we're dealing with. This is not about whether we have science on her side. We know we do. It's about this cancerous ideology on the conservative side that really wants to destroy much of what we consider American values.

**Greg Dalton:** We're talking about the Paris Climate Accord and free press and our democracy at

Climate One. I'm Greg Dalton with Gil Duran, Amy Jaffe and Jim Sweeney. We're gonna go to our audience questions. Welcome to Climate One.

**Female Participant:** Hi. I'm Leila Holtzman. I'm a native Californian but I've lived in a few other states. I actually went to Rice University in Texas. And my question is about the idea that was mentioned earlier. I think someone said even most states are planning to implement parts of the clean power plan despite trampling out of the Paris agreement. But I would love to hear a little more discussion about is that really true and we've got leaders like Texas, California and New York but are the other states actually going to step up or is this really like kind of a pipe dream.

**Greg Dalton:** Texas says they can meet the clean power plan without any – they would've met it without Obama.

**Amy Myers Jaffe:** So let me tell you a true story. I was speaking at an electricity conference in Florida last summer. And a lot of the different PUCs were there and all the different utilities and everybody was there, and it was a very mixed group because there's many different states. Some red states, some blue states and it was before the election, and we all know what a charged atmosphere it was and you know how charged the atmosphere it is and of course I'm coming there speaking as a professor at the University of California, so that makes it even worse because now I'm here and I've got all these people in this audience, and I'm talking about, you know, the clean vision. And what did I say? And I actually had these slides that showed all the corporations across the United States that have committed to going to 100% renewables. And I'm not just talking about Google and data centers, you know, California-centric companies, I'm talking about companies like Wal-Mart and GE. And so I was making that point and I was sort of showing a map and I was showing places that were red states that have these headquarters there and they're gonna really be pushed to stay with the renewable story. And after my talk, a gentleman came up to me from Georgia. He was with the PUC in Georgia and he identified himself as a Trump delegate. And he explained to me that everything I had said in my talk was true. That in Georgia, you know, they were gonna do renewables come hell or high water. He named some corporations that were in Georgia that were demanding renewables and they were gonna have to do that to keep those jobs in the state. But then he pointed something out to me and he wanted my reaction and it was very hard to sort of think on my feet as to what to say. And he said that those corporations were getting federal subsidies to be able to do those renewables. And that for him to be able to balance the system in Georgia, he was having to raise the prices to his rate base and that that meant that people who are retirees and people on fixed income and people living on low income were being forced with these higher electricity prices to balance out the fact that some rich corporation was getting a subsidy to go 100% renewables. And he was pretty embittered about it. And what I would say to you is when we think about the energy transition, we have to think about how to maintain mobility and services for the poorest Americans in a way that's fair. And if we don't consider that it's going to be harder to get our infrastructure and everything we need in the right way.

**Greg Dalton:** Jim Sweeney.

**Jim Sweeney:** The biggest changes right now and how would decarbonizing the energy system is cheap. Natural gas is pushing out coal and that has nothing to do with the clean power plan or the politics of the coal-producing states. It has to do with the high cost of eastern coal, the mine coal relative to the low cost of natural gas. And if you think about a utility executive right now building a new generating plant that's gonna operate for 40 or 50 years, who would ever think about putting in a coal fired plant when the cost of coal is only going up rather than wind or solar or natural gas when all of those costs have gone down over time. Because again, smart executives aren't only looking at the next four years, they're looking down the road. So whether they're going to exactly meet the clean power plan or not, I don't know it's different among different states. But across the

United States, coal is being pushed out by wind, solar and natural gas and energy efficiency. And that's really is what's cleaning up the system.

**Greg Dalton:** Let's go to our next question. Welcome.

**Male Participant:** Yes. Michael Warburton with the Public Trust Alliance and the question I have in the move from federal to state leadership, what sort of opportunities do you see in a market economy that remembers half of our law that essentially water is a public trust, you know, that's supervised by the states, and public trust law is natural resources, environment and forward thinking. And do you see any advantages and opportunities in remembering that our water is a public trust.

**Greg Dalton:** Thank you. Amy Jaffe, a lot of people will be affected by climate either by having too much or too little of water and there are special rules governing water, the essence of life.

**Amy Myers Jaffe:** No question. And I do think, you know, this gets back to what we've been talking about all along thinking about equitable ways to protect the public good, right? And I believe, I mean, I'm an economist, you know, work in a business school and, you know, I understand all the financial forces. I've been helping the University of California's office so the chief investment officer look at ways to use investments for the pension fund and the university's endowment to look forward to these sort of sustainability investments because there are a lot of opportunities out there. And over time there'll be more to really, you know, bring in long-term investment dollars to bringing solutions. But that said, really truly it has to be regulation. You know, all of these markets have to be regulated. The energy transition, you know, even James Baker who identified himself on TV as a conservative said we need to have a carbon price in this country. And the regulations rebound how we handle water and how we distribute goods if we're having weather or other kinds of crisis. I mean, it takes government and takes responsible government.

**Greg Dalton:** And on the investing side, recently shareholders of Exxon Mobil did something remarkable, 60-some percent of them said they want the company to disclose carbon risk to their business. So Amy Jaffe, how big a deal was that that Chevron shareholders said, hey you gotta tell us what the future risk is to your business and our profits.

**Amy Myers Jaffe:** You know, it was so unbelievable to have these two simultaneous events that we're having this historic victory where shareholders who own stock in these companies and before the Exxon Mobil decision, Occidental Petroleum even higher amount of shareholders 70-something percent of shareholders voted that Occi needs to analyze and disclose how climate change is gonna affect their business. This is a fundamentally important thing and it can have great value. When some of the other companies have done this exercise, I use for an example Total of France, they've actually decided to shift billions of dollars of capital into renewable energy. And I understand that we like to villainize, you know, the industry, but in the end having companies that already have billions of dollars on their balance sheet shift some of those dollars into clean energy. I mean, Shell is investing in hydrogen stations here in California and in Germany. Having big capital like that come in and try to scale up some of these technologies is beneficial for everyone. So the shareholders did an amazing job. You know, they should stay with it and force these companies to analyze the transition, analyze their positive role in the transition and get this capital deployed where it needs to be deployed.

**Greg Dalton:** Next question. Welcome to Climate One.

**Male Participant:** Yes, in light of the abdication of responsibility of the federal government, what can people do either individually or collectively to try to improve the situation. And I'm not talking

about, you know, living more efficiently or buying a hybrid car, I mean, collectively, should we be looking at, you know, ballot measures on the state ballot to, I don't know, fund energy storage research or, you know, pushing our state government to work collectively with other state governments to try to form alternative regimes for regulation or standards for improvement.

**Greg Dalton:** Thank you. What can people do beyond just, you know, eating less meat, personal virtuous behavior. Jim Sweeney.

**Jim Sweeney:** I think local cities can start providing role models both in renewables and energy efficiency that use the bully pulpit to start changing, experimenting. The significance of individual cities experimenting, if the experiment goes wrong, it's just a small number of people that are affected, you know, a hundred thousand people maybe. If it goes right as models that can be continued, picked up by other municipalities, other cities. That's actually been a large part the way our environmental regulation started by individual states experimenting. California was the key one. So I think you push at the local levels for being a little bit bold about what you're doing in energy and create the bully pulpit and then talk about it afterwards. Certainly push that at the state levels too. And then in industry, people in companies can sort of demand for their their employers to have more fuel and energy efficient buildings to get renewables, to move forward because companies care about what their workers are doing because they need them. So I think there's a lot that can be done beyond the individual choices really working institutionally.

Music: In

**Announcer:** Greg Dalton has been talking with Gil Duran, former spokesman for California Governor Jerry Brown and U.S. Senator Dianne Feinstein, and currently an advisor to billionaire climate advocate Tom Steyer. Amy Jaffe, Executive Director of Sustainability at the University of California Davis Graduate School of Management. And Jim Sweeney, professor of management and engineering at Stanford University and Director of the Precourt Energy Efficiency Center.

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Please join us next time for another conversation about America's energy, economy, and environment.

[Applause]

**Announcer:** Climate One is a special project of The Commonwealth Club of California. Jane Ann Chien is the producer. Kelli Pennington Directs our Audience Engagement. Carlos Manuel is our Booker and Associate Producer. The audio engineer is William Blum. Anny Celsi and Devon Strolovitch are the Editors. I'm Greg Dalton, the Executive Producer and Host. The Commonwealth Club CEO is Dr. Gloria Duffy.

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Music: Out