Greg Dalton: From the Commonwealth Club of California this is Climate One changing the conversation about America's energy economy and environment. I'm Greg Dalton. At the Paris climate summit last year, more than 190 countries agreed to run their economies on cleaner fuels. Unlike previous attempts to fight climate disruption, corporate America was on board this time. Bank of America, Coca-Cola, Disney, Walmart and other icons of American industry endorsed the deal and pledged to cut their own carbon pollution. But the Paris climate agreement came under swift political attack in the United States and Donald Trump recently said he would cancel the deal if he is elected president. On the show today we will probe the health of the Paris climate deal in this strange political season. Will climate-related issues such as energy, drought and air quality be a factor in the election? We also will explore new clean energy technologies; who's winning and losing and the transition away from fossil fuels and what average people can do to help protect the climate that supports our economy. This program is generally supported by the Energy Foundation and Climate Works Foundation.

Joining our live audience at the Commonwealth Club we're pleased to welcome a Republican and Democrat from the front lines of the energy debate. Andy Karsner was an Assistant Secretary of Energy in the second Bush administration. He's currently a managing partner at Emerson Collective, a social benefit organization founded by Laurene Powell Jobs. He's also a Space Cowboy at Google X. We'll learn what that is. Tom Steyer is a hedge fund billionaire and President of NexGen Climate, a political organization that aims to prevent climate disaster and promote prosperity for every American. Please welcome them to Climate One.

[Applause]

Welcome to you both. Andy Karsner, let's begin with you. You were deeply involved in negotiations, climate negotiations in the second Bush administration. What's your assessment of the climate deal in Paris, is it good for America?

Andy Karsner: Well, my first assessment is just one word, relief. You know it's the end of a long strange trip that began with our mutual friend Bill Riley in the administration of George HW Bush in Rio almost a quarter-century ago. As a young man who built a wind development company I was at COP7 and thought that was a couple of the conference of the parties, COP after thought we were nearing the end. And then I found myself a decade later as a climate negotiator in Bali trying to go beyond Kyoto with the Bali roadmap, the architecture of which eventually became Paris another decade later. So I don't think anybody anticipated in Rio all that time ago that if we take almost a quarter-century to get to some sort of uniform global consensus on the direction, the pace, the
common destination and everybody rowing in the boat in the same direction for the same purpose. That’s what Paris was and it was important because Paris was the end, no matter what. In other words, it was the end of the negotiation process. It was the final stop where we said we can do this or it inevitably meant a collapse of the process that we had pulled ourselves into a cul-de-sac. And I think through some very agile, diplomacy, and a lot of pre-work, John Podesta had a lot to do with it, there was a lot of bipartisan basis to it, but in capitals like Beijing and Delhi, et cetera that deal got done. But my view on Paris is that the avoidance of diplomatic collapse is not tantamount to construction of a market catalyst. And the real measure of the promise of Paris will begin in Marrakesh at the next conference of the parties.

In other words, the end of negotiation needs to yield the beginning of demonstrable, measurable, potentially enforceable action that takes us onto a pathway and trajectory to realize the objectives. The Paris agreement itself, if it were fully realized, would not get to half of what is needed. So I have nothing but good words for sending a signal out into global markets that we can do this; that all the nations of the world can get together and decide on a direction. Now we need to get to a cadence and a pace that’s consequential.

**Greg Dalton:** Tom Steyer, your take on Paris, is it a big success or glass half-empty, half-full?

**Tom Steyer:** Well I think that the biggest significance for me to Paris is that 196 countries, the most countries to ever agree to do anything, decided that climate was the most important thing that they would get around and make a statement about what had happened. So from my standpoint, it’s got to be viewed as a big success. And in particular, I think that the leading emitters came to Paris and agreed that they were in fact going to change their behavior that they’re going to push. And I think that President Obama and the administration deserve a lot of credit for the bilateral negotiations that happened beforehand that really set up Paris to a very large extent, starting with the agreement with the Chinese.

**Greg Dalton:** And what do you make, Tom Steyer as a businessman, of the presence in Paris of Coca-Cola, Disney, General Electric? Corporate America was there an onboard at least symbolically may be they might get a little squarely if again it starts to hurt their specific businesses. But symbolically, they were on board in Paris.

**Tom Steyer:** Well, I think one of the big successes in Paris and that was different from the previous negotiations is that what I would think of a civil society really showed up. So that includes businesses, it includes nonprofits.

It was basically a statement from a very broad group of important actors from around the world that they were going to be part of the solution here. And particularly somebody from California and we were, my wife and I were in Paris. You could see an enormous number of people from California and the one I like to point out is Kaiser Permanente. A health organization who decided that it was really important for them to be there and to make a statement about what how they were going to behave in the future and why it was important for the hundreds of thousands of people, the health of hundreds of thousands people, that they work for.

**Greg Dalton:** Andy Karsner, if Corporate America is on board behind this why doesn't Paris have more political support from the national Republican Party?

[Laughter]

**Andy Karsner:** Well, I mean there's so many different ways to divide that question. I mean what national Republican political party would be my first –
- you know, which brand, you know, this week. So I mean that’s probably easier for somebody who didn’t historically grow up Republican to answer as a pundit that it would be for someone it eminently confused about having their party hijacked by a narcissistic lout. So –

- but I think irrespective of current bizarre hopeful aberrations to the party of Lincoln, one would say irrespective to that that most of the constituency base of the Republican Party - non-urban, middle of the country places -- have a more significant learning curve that needs to be climbed. And that we need to help them climb in all kinds of ways. So that was a trend line that predates the current bizarre phenomenon, it predates the emergence of the tea party but it’s not necessarily unrelated.

There is a lot of frustration in the way that technology and economy are separating from people across communities in this country. And unfortunately, we have predatory figures on the political horizon that are preying on some of those fears and frustrations and in the worst cases, ignorance and bigotry. So all of that is clouding the idea that you’re climbing a learning curve that inevitably needs to be climbed to embrace the fact-based science, you know, et cetera.

So I don’t know where that ends but there’s no, I couldn’t give you the same answer today that I could give you in 2006 to that question. In 2006, I can give you far more precision on what needs to occur in that evolution to get to a more convergent conversation that would engage for some legislative policy or regulatory transactions. Today, I can’t actually give that you.

**Greg Dalton:** But Andy Karsner, you said that in Bali which was under the Bush administration that architecture for Paris was developed. So Republicans if Paris followed Bali, Republicans have abandoned their own child.

**Andy Karsner:** Listen, I put into place regulations to phase out incandescent lighting. And the same guys who voted for that in a bipartisan legislation with two-thirds of the both houses of Congress later came out and said, you’re not taking away my damn incandescent, you know, I cook an egg on that thing. I love my incandescent. You know, so all of the sudden the whole of four gallon flush toilet crowd came out, you know, don’t take away my flusher, I’ll flush it three times. I’ll go to Canada before you take away my flusher. But these people voted for this in a different political environment before they had to placate or run to the fringes and pursue illogical thinking for whatever keeps them employed through their fundraising mechanisms. I don’t know, it’s a sad evolution.

**Tom Steyer:** Well let me say this, let me just put a little meat on the bones of what Andy just said. First of all, Republican voters have moved on this. If you go around the country and ask Republicans, do you want the government to accelerate the move to clean energy, you get 75% Republicans who want that. So it’s not true that Republicans aren’t up the learning curve. They’re different from Democrats. They’re not as positive about clean energy, but they’re very positive about clean energy and they’ve moved a lot in the last two years specifically pretty much in lockstep with American business. So as American businesses actually come around to we have to do it. We can do it. We can make money doing it. It’s a good thing for us to be part of for a whole bunch of reasons including the
fact that we’re patriotic Americans. Republican voters have moved the exact same way.

The real question that I would ask Republicans is the Republican elected officials are in a very different place on energy and climate than Republican voters. And I could speculate about that but the fact of the matter is if you go around the country, pretty much without exception, Republican voters do not have their heads in the sand. This may not be the most important issue to them and in fact, it isn’t the most important issue to them. Which is why elected officials can have some freedom but the fact of the matter is, Americans have moved very substantially on this, including Republicans, including the vast bulk of American business people. And the country is ready to move but we are being held hostage by elected officials who are not actually representing the views of their own constituents, of their own party.

**Greg Dalton**: So what do you in – Andy Karsner?

**Andy Karsner**: Let me just say that I don’t necessarily disagree with what Tom has just characterized but we would change the terminology in there, right. So I agree with what you just said about their support and general favoritism towards clean energy. That I think is separate to -- while it's indistinguishable here in the Bay Area it is quite separate to their acceptance of climate science, right. And so, you know, there’s a reason why Texas leads in renewable energy and yet Texas also is one of the most reticent states embracing climate science. I mean it is precisely because if they can make money out of the energy and it’s patriotic and it’s good technology, why not, you know, but the idea of doing something that induces greater acceleration towards policy or a more comprehensive bipartisan sequel, if you will to some of those pieces 10 years ago, that’s more challenging because they haven’t climbed the curve sufficiently and embraced the topic and that we haven’t arrived at a national consensus.

**Tom Steyer**: So I think that that is true to an extent. So if you ask the question differently you get a different answer. And clean energy is more popular with Republicans and accelerating the move by the government to clean energy is more popular. But if you ask it in the toughest way, do you believe the climate is changing? Do you believe it is changing because of human activity? Do you believe that the government should be doing something about it? You still get in the mid-50s from Republicans. So and that doesn't mean that 45% disagree. There's a healthy proportion of people who will say I don't know.

It’s true that a very high percentage of the big environmental measures that have been taken in the United States over the last 50 years have happened during Republican administrations, including the Clean Air Act, the Clean Water Act, the establishment of the EPA, the Endangered Species Act, the Montréal protocols. We have traditionally been a bipartisan country when it came to clean air, clean water, preserving our environment, handing on a country to our children and grandchildren that we are proud of. That has been traditionally a bipartisan patriotic statement by both parties. And I would posit that in this case with the biggest threat we’ve ever had environmentally we’re having a horrible partisan problem. And it’s not just 2016 and Mr. Trump you know it’s been going on for over five years.

**Greg Dalton**: And Tom Steyer, you've spent millions on the airwaves. You have a lot of campaigns now attacking Republicans. Are those attack ads making that partisan divide worse?

**Tom Steyer**: Well let me say this, let me describe what we’ve been doing. The ad that I think that Greg is responding to is we have an ad on the air where we are showing Mr. Trump speaking about what he would like to do on immigration and to people who are here who he believes shouldn’t be here and should be deported, and that's in the background. In front of it is a picture of a group of very diverse Californians just standing there while he speaks. And it is I think quite damning to Mr.
Trump because what he’s saying when you see it in the context of young diverse Californians would be affected by the policies that he’s talking about it is very upsetting to see because those are the people who he would want to deport and he talks about having a massive deportation force.

So I do think that it’s a statement but if there’s any harshness to it, if there’s any damning quality to it. It is simply holding his words up to the viewers with the people who’d be affected in the foreground so that they can draw their own conclusions.

Greg Dalton: And what’s your strategy? In 2014 you backed some senators didn’t have a great track record; of the two out of the six races you involved in went your way, what are you hoping to do and what are you spending this year in terms of national politics?

Tom Steyer: Let me say this. What we’re doing in 2016 is we are trying to, we’re going to be in seven swing states that are swing for the presidential election and in the Senate and we’re going to be in California. And in every case, what we’re really trying to do is register voters, engage voters and make sure that people participate in the broadest possible way. Because what we think is if we get full participation, if we get as many Americans to participate in the process, we will get the best decisions. You know voter to voter contact is what we’re trying to sponsor. But we believe that we’re at this critical juncture in our country and in our democracy.

And we want the broadest participation because we feel like our values are definitely under the gun and at risk. And we feel like the more Americans who show up, particularly in our home state of California and in the swing states, the better answer we’ll get. And so, you know, we are completely committed to the idea of a broad democracy, well-informed, showing up and making the decisions as a group in the way that we have for over 200 years.

[Applause]

Greg Dalton: If you’re just joining us we’re talking about American politics and energy at Climate One. I’m Greg Dalton. My guests are the investor and climate advocate Tom Steyer and Andy Karsner, an energy expert.

Andy Karsner, do you agree that broad participation leads to good decisions and that the country’s at a critical crossroads?

Andy Karsner: Yes, I mean I’m a small d Democrat, I absolutely believe that we should have an informed broad participating electorate. And we should be somewhat embarrassed that we haven’t enabled the means and mechanisms in the standardization of process that makes it more easily accessible to everyone in this country with a right to vote and bringing them up to speed on a form basis. So yes, we should but at the same time we should be elevating our civil discourse and we should be amplifying an enlightened competition of ideas across the political spectrum. That’s not where we’re at; we’re regressing into a grotesque and ugly soundbites on all sites. I mean, I was talking with a friend, a college friend. And we thought, boy, you know, we graduated the year the wall came down. And what a neat time to be alive, what a neat thing to look at our parent’s generation, who beat back fascism in our generation, who beat back socialism.

And come away with this American model of free enterprise and globalization. To have all that now under attack with a populist revolt holding up the primacy of socialism and neo-fascism is just is just a horrible place to be. And it's more than the embodiment of these various candidates. It's what have we failed at as a people with elected representatives pursuing a good society for all. When we no longer can talk to one another in a way that we can compete for the best ideas and the best practices and hold out those things that we do better, converge on them, at least try some of them
and move forward. And we are regressing at a time that our problems are scaling beyond our capacity to manage. So we need to catch up or we're going to have the risk of political obsolescence to some degree. And I know Tom works on this chronically and I know other people work on that quite actively.

I have to tell you from my perspective, there's never been a better time to be moving away from Washington. I'm very excited about coming to the Bay Area because I think that the epicenter of leadership now has an opportunity to shift away from capitals to some degree. I actually think that some of the locomotive of progress if not most of it is going to occur outside of our capital. And that our politicians who are lagging anyway, are going to be forced to find themselves into positions of leadership or render themselves irrelevant and probably unemployable outside of their current roles.

[Applause]

**Greg Dalton:** Tom Steyer, Andy Karsner just referred to the rising of popular revolt giving right to socialism and fascism. That's kind of equating Bernie Sanders and Donald Trump. Is that fair?

**Tom Steyer:** Well, there's something that's going on in the United States.

**Andy Karsner:** I wasn't going there. But you phrase it that way so that's fine, yes. But that's not what I was doing.

**Tom Steyer:** There is something real going on in the United States that's been going on for 25 years. And that is that the vast bulk of Americans have not been progressing in terms of their income since 1990. And that is something that is very scary for people and it's something that I don't think people really understood; it was hidden for a long time by a lot of statistics. But the fact of the matter is when you look to what's happening in the United States since 1990, the vast bulk of people have not gotten a raise. And they're worried about the future and they're worried about the fact that our country actually has done better, but the gains have been distributed very, very unequally. And I don't think that, I think Americans are actually a very big-hearted people. And it isn't really that they're resentful of people doing well but they sure as heck want to believe that as the country does better they will do better along with it, and that their kids will too.

So I actually don't think that the fact that Americans are upset is unfair. There's something going on that actually is wrong and that Americans are instinctively pushing back against. That's one thing is the fact that people have not raised. The second thing is, Americans are very upset about their political system and do not believe that their elected representatives are representing them.

They feel as if the system has been taken over by moneyed interests and as a result, their vote no longer holds the power that we said it did when we set up the system in 1792. And that is scary for Americans, they are mad about both of those points and they're not wrong.

**Greg Dalton:** Tom Steyer, one thing that has been proposed is eliminating the loophole that allows carried interest, that as Warren Buffett often says he pays a lower tax rate than his secretary. Do you favor the elimination of the carried interest loophole?

**Tom Steyer:** Absolutely.

**Greg Dalton:** Okay. I want to go to our lightning round and ask each of you a brief yes or no question starting with Andy Karsner. We're talking at Climate One with Andy Karsner, former official in the second Bush administration and the investor and climate advocate, Tom Steyer. I'm Greg Dalton. Andy Karsner, yes or no, California is in a drought?
Andy Karsner: Is in a drought?

Greg Dalton: In a drought.

Andy Karsner: Yes. Last I checked, yes.

Greg Dalton: Not everyone has said that recently.

Tom Steyer, U.S. rejection of the Keystone XL pipeline has resulted in more oil traveling through American communities on railcars that occasionally become deadly fireballs.

Stopping Keystone put oil on railcars that go through American communities, yes or no?

Tom Steyer: No.

Greg Dalton: Andy Karsner, the U.S. rejection of the Keystone XL pipeline has kept in the ground oil from Canadian tar sands, yes or no?

Andy Karsner: No.

Greg Dalton: Tom Steyer, do you drive a pure electric car?

Tom Steyer: I drive a plug-in hybrid that, a Chevy Volt, which is where I'm driving on electricity but it has a backup engine in case I run out of electricity.

Greg Dalton: And why don't you drive a Tesla?

Tom Steyer: Can't afford it.

Greg Dalton: Too cheap, okay.

Andy Karsner, are more Republicans in Washington DC in the gay closet or the climate closet?

Andy Karsner: I guess I'll call it a draw, I don't know.

Greg Dalton: Tom Steyer, sooner or later, most of them will come out?

Tom Steyer: They will definitely come out of the climate closet.

Greg Dalton: Tom Steyer, after the presidential election in November you will decide if you will run for governor of California in 2018?
Tom Steyer: I will decide.

[Laughter]

Greg Dalton: This is a word association. So I’m going to mention some names where you’re just going to tell me the first thing that pops into your mind. Not the second thing, the first thing. Tom Steyer, California Lieutenant Governor Gavin Newsom.

Tom Steyer: Baseball player.

[Laughter]

Greg Dalton: Left-handed first-baseman from Santa Clara University.

Greg Dalton: Last one, Silicon Valley entrepreneur Steve Westly.

Tom Steyer: Classmate of mine in business school.


Andy Karsner: Nut job.

[Laughter]

Greg Dalton: Potential Secretary of Energy, maybe perhaps.

[Laughter]

Tom Steyer, Volkswagen.

Tom Steyer: Cheated on their diesel test.

Greg Dalton: All right, I think we have to end it there. Let’s give our thanks. How’d they do, I think they did pretty well.

[Applause]

[CLIMATE ONE MINUTE]

Announcer: And now, here’s a Climate One Minute.

When we look to the coming elections, we can’t underestimate the political clout of communities of color. They care about climate change - and they vote. Manuel Pastor studies environmental equity at USC. He says that recent polls by the Public Policy Institute of California have yielded some surprising results.

Manuel Pastor: Yeah, it’s striking I think when people think about who cares about climate change what they imagine is a sort of thin, you know, a white hipster in spandex fresh off their bicycle sort of tossing granola over their shoulders as they walk along. But in the last poll when asked whether climate change was a very serious concern, one that you are willing to address even if it involves economic costs, only 43% of non-Hispanic whites in the state of California said it was a very serious concern. 63% of Latinos said it was a very serious concern. 57% of African-Americans and 54% of Asian Pacific Islanders. So people of color across the board are actually more concerned about this.
And so it's less that the bicyclist in spandex and more the immigrant woman who lives near a refinery in Wilmington who's kind of facing the daily ravages of pollution from those remitting greenhouse gas emissions and the co-pollutants.

**Announcer:** That's Manuel Pastor, Director of USC's Program for Environmental and Regional Equity. He spoke at Climate One last March. Now, let's join Greg Dalton and his guests at The Commonwealth Club.

*[END CLIMATE ONE MINUTE]*

**Greg Dalton:** Tom Steyer, you've done some work with former Treasury Secretary Hank Paulson, Mayor Michael Bloomberg about the risk of climate. So tell us about that project and what's at risk to the American financial system and property.

**Tom Steyer:** So we started a project, Mike Bloomberg, Hank Paulson and I started a project called Risky Business to try and take a business approach to talk about the risks of not taking action on climate. And the reason that we did it, those people came together because Hank is a Republican. Mike is an Independent and I'm a Democrat, and we specifically wanted the project not to be partisan. And the idea was that we would do very rigorous studies of the impact of not acting and to see down to a community level, down to a ZIP Code level what the impact would be in terms of increased heat, rising seas, the impact on agriculture. So that everybody could look and see if you live in Des Moines, Iowa what's the impact in Des Moines, Iowa on a business basis. So that we could talk to business people around the country and say not acting has the following impact on where you live and has the following impact across the country.

Because what we've heard, what we'd always heard is that the safe thing to do was nothing. And we wanted to do the most rigorous analysis on an economic and business basis and then have the messengers be business people to go out and say, actually not acting is acting, not making a decision is making a decision. And here's the risk reward.

We've done half of it, which is to show the risk. In the fall we're going to release another report which will show in the same way but down to the community level, what is the impact on jobs, wages, costs of accelerating the move to clean energy based on existing technologies. And the idea is this: changing our energy system has a dramatic environmental impact and the risks are big. And the first study showed that not acting is a very dangerous thing. By 2100 if we don't act, it will reduce our GDP by 36%. It's not a minor thing. It's a gigantic thing. But we also want to show is what is the impact of actually taking on this challenge and moving to clean energy. But when you come up with a message -- and I think that, you know, Andy is a perfect example of this. One of the people who we have, I mean Mike and Hank are famous and we have some other very well-known business people on both sides of the aisle. But one of the people we have is a guy who I saw today Greg Page was the former CEO of Cargill, which is a huge agricultural business based in Minneapolis. And as I like to say, the one thing that the farmers in Midwest really want is a progressive Democrat from San Francisco to show up and tell them what to do.

[Laughter]

If you're going to speak to those people, you need a Greg Page, who's from Minneapolis or a Hank Paulson, who is a Republican from Chicago, who they know in their bones cares about them. And the idea is to be able to say to people, let's move beyond the emotion. Let's try to pull everybody together. Let's try and be as hardheaded as we can be, and present the information objectively and let's use that as a basis for making decisions. Because if we can do that, then you know we want, we see this is a huge American problem, and a huge American opportunity.
So I want the Andy Karsners of the world to be on our side. I want to be on his side. I want to be attacking this problem with the responsible people around the country and I view it as something that we cannot impose on each other, that we will have to agree together how we’re going to do it. And then when we do we will be, it will be the thing that Andy was saying we look back and say, you know, we won World War II. We won the Cold War. This will be something we will look back and say, didn’t we do something great together because it’s not going to happen unless we do it together.

[Applause]

**Andy Karsner:** Are you sure you didn’t decide on that governor run already?

[Laughter]

**Tom Steyer:** You know, let me just say. I’m not cynical. We are not winning this by being cynical. We learned; we’re going to have to go back to our most basic values together.

**Greg Dalton:** One thing that -- some people are being left behind. I want to talk about coal miners in Appalachia, people, loggers, et cetera. Andy Karsner, what’s to be done by some people who will be hurt by this transition to a clean economy? Lots of jobs will be created. But if you're a 50-year-old coalminer, the U.S. coal industry is going away.

**Andy Karsner:** I think it's one of the most important under addressed questions in all of this, right. In other words, as we’re up here calling for better thinking better policies, better technologies, faster implementation go fast-forward on a big meta-and macro problem, we cannot lose sight of the real things that are coming that we have to deal with from the ground up. In our homes, in our schools, in our communities and it is been it’s a big focus of mine and it’s with the prevailing reason why I’m so happy to be part of Emerson Collective, where we focus on humanity centric solutions and the justice embedded in them. We began this country to, with the advent of light bulb I should say, we began in this country to aggressively and assertively pursue something called the social compact. That is delivering electricity as a universal good to every American in every corner and every community to have access to lights so that they could read at night with extra literacy, so that they could cool their food and store it longer, so that they get to change the temperature and live in Florida or in the deserts of Phoenix or whatever.

And we sort of take that for granted. We only finished at a quarter-century ago; it’s in my lifetime that the last homes in Arkansas were getting wired up, right. But we now are at the precipice of needing to revise all of that. We, not just the urgency of new solutions that have to be implemented that as you rightfully suggest are going to cause massive dislocations. But we have a need to ensure that the social compact itself evolves so that it's beyond access to electricity which we take for granted and is access to all of the technologies that are available now to improve people's lives. There's no reason that all the homes in Atherton should have solar panels and Teslas in the driveways, many of them parked next to Range Rovers, not at Tom's house. But over in East Palo Alto we have almost no solar panels or no integration of efficiency in the home. And we have all kinds of dislocation because of a few lessors and lessee arrangements.

We haven’t taken care of the organizations to bring the rest of the communities along, that would be an injustice in and of itself but it’s much worse than that. We protected these monopolies to deliver the first social compact for a hundred years. We gave them privileged positions. We made them outsource taxation authorities and regulated their return and they’re leaving the junk and the gunk and the brittled grid with those who can't afford or don't have access or information or education to integrate the new technologies in their lives and they need it most. Those same solar panels will cut their bills. That will give them more cash flow. That will avoid the trips to the gasoline to refills of
gasoline and get more money for groceries. So that same seeding problem of static income that has been plaguing us for two decades has a chance of being exacerbated if we don't mind the dislocations. Not just at the mine mouth or at the wellheads but also in our communities across this country in East Palo Alto and Oakland and Detroit and Cleveland, et cetera. So we're going to pay a lot of attention to that.

[Applause]

Greg Dalton: If you're just joining us we're talking about energy and politics at Climate One. I'm Greg Dalton. That was Andy Karsner, managing partner of the Emerson collective and former administration at Department of Energy in the Bush administration. And the energy advocate and climate advocate Tom Steyer.

Tom Steyer, California, is now a minority, majority state; there's Latino population. How are they concerned, are you communicating with them about climate? Many of them see that as a remote issue. They're worried about jobs, access, stagnant incomes and will they be left behind or even relevant to this clean energy transition you're talking about?

Tom Steyer: So, in 2010, George Shultz and I co-chaired a "No on 23" campaign where two out-of-state oil companies put a prop on the ballot to try and get rid of our progressive energy laws. And we basically confronted the fact that traditionally in California politically when environmentalists got into a fight with business people and specifically oil companies, the oil companies always won. And we had to understand why that is not going to be true going forward. So one of the things that is true about California, it is also true about the rest of the country, is that the ethnic group that cares the most about the environment, about climate and about progressive energy policies is Latinos. They score off the charts. So we knew the number two group by the way, is African-Americans and the number three group is Asian-Americans.

So actually, we knew as far back as 2010 when I started to get involved in this in a political basis that the coalition that supports progressive energy loss is centered by Latinos. The fact of the matter is there are issues in the Latino community about health, about clean air and also about culture that makes them across the country and outside the United States as well incredibly focused on this. The issue I think Andy makes, brings up a very good point and I think you bring up a very good point too Greg, which is when we think about how we create a clean energy economy, we're going to create hundreds of thousands, millions of jobs. We're going to create millions of net new jobs. But the question is who's going to get them and how are they going to be paid. And that is a very real question for everybody in the state of California and around the United States of America. We are going to have to do this work and we're going to need to make sure that that work is fairly paid so people can raise a family on it in dignity. And we're going to need to make sure that that work is distributed throughout the community.

That it is, when I first talked to Kevin de Leon who is the President pro tem of the Senate in California, we were talking about "No on 23." He said Tom, if you put solar panels on the roof of my constituents the house will fall down. But we are deadly serious about getting the jobs for the people in my community. So when you look at Senate Bill 350 that passed last year. The two big provisions of that bill were we're going to redo commercial buildings and make them more efficient by 50% by 2030, and we're going to produce 50% of our electricity generation from renewable sources. That's a lot of jobs. You want to redo 600,000 commercial buildings in the state of California. That's a lot of people walking into buildings and doing work. And his point was, let's make sure that work is fairly distributed, that people get into those apprenticeship programs from all the communities including the poor communities. We're a majority, minority state.
That is a great fact about California. That is one of the best things about California. I think that's why we are able to look so in such a clearheaded fashion about the future. It's a fantastic part of our state, but it means that we have to make sure that we rise together and those jobs are fairly distributed and the costs are not unduly put on any part of the community. And that is a management problem and a government issue, but it's absolutely critical that as we do this we make sure that we promote prosperity for every Californian and every American.

**Greg Dalton:** Another phrase from Kevin de Leon, the speaker of the California State Senate is teaching the electric car to speak Spanish. So Andy Karsner, I want to ask you about the potential for innovation and jobs. Detroit and Silicon Valley are kind of getting together now, coming together with electric cars, connected cars. How do you see that as a big disruption and job creator?

**Andy Karsner:** Well I think it’s huge. I mean it's in - there’s a lot of stuff I work on that’s secret, but autonomous vehicles isn't one of them. And -

**Greg Dalton:** This is in your role at Google X?

**Andy Karsner:** Right. Yeah, as a strategist. But I think that if you'd ask people about autonomous vehicles 60 months ago, they will said, you know, you really are a space cowboy, what are you smoking? But they don’t now. Today Ford has opened up a research center here; people are moving to the West Coast and say we have to be part of it. And so when I left the office there were approximately zero electric vehicles on the road, you know. Now there is I think in excess of 17 different models on the road. And now we’re not talking about those vehicles, one per driveway in this sort of Jeffersonian way that every kid with testosterone is going to go rev one up and run the strip like when we were kids, you know, rev the motor.

Now the kids are saying, you know, what the hell do I need that? I’ve got an on demand chauffeur in my pocket, you know, I can drink as much as I want at the clubs and I don't want a driver's license. So the licenses are going down. The models are changing; the ridesharing in a collaborative economy is skyrocketing. The number of apps and innovation around the ecosystem of mobility, it’s not about the car anymore as part of an American dream. It's about the ease in access of mobility on demand in the most environmentally sensitive way with the most efficient outcome. So we’re going to eliminate idling in this country and all the related emissions from it and it's going to happen with these wild eyed dreamers and kids that are in Silicon Valley. And it's going to be a contagion because the ideas are too good. So I think it is a massive draw to revolutionize mobility and I think it's going to force some of the people across the table from Tom in many instances to rethink their strategy from being about purveying hydrocarbons to being about purveying energy and taking part in the energy economy in new ways that are technology centric and not necessarily resource centric.

**Greg Dalton:** We’re talking about energy and politics at Climate One. Let's go to our audience question. Welcome.

**Male Participant:** Yea, Alden Meyer, Union of Concerned Scientists from Washington. I’ve not been here before it’s a great dialogue Andy, good to see you again. I never imagine I will think of the Bali moment as the good old days but we do now. I’m wondering about carbon pricing. You really haven't talked about that. The reality is we’re spending a half trillion dollars a year worldwide to subsidize consumption and production of fossil fuels. Can we eliminate that, can we put a price on carbon to socialize the externalities and could that be something where left and right could come together and say let's use the market mechanisms for good?

**Greg Dalton:** Andy Karsner.
Andy Karsner: I believe the answer to that is yes. And I think it's something you have to pursue. And I, you know, in the essence and core of a Republican Party that believes in market-based solutions being the most powerful and prolific and transformative to the outcome society seeks, one would say, how do we put the guardrails on the market with the catalyst within the market to enable the outcomes we seek and if that is in fact the indispensable role of government. Since we know these are externalities in the commons there's no mystery that we’re not accounting for these things, and in fact we've arrived at a market failure by not accounting for them. Simply accounting for them is the right thing to do. So why we’re wrapped around the axle about how we account for them that's a big problem. That it starts with the problem the breakdown in communications of logical people trying to transact around legislative solutions that are durable and predictable and yield something for the marketplace. And in this case there are so many good ideas floating. I was just reading one from Ted Halstead on a fee and dividend plan, which basically takes cash that -- Sarah Palin is coming out twice in my mind is spooking me out. But it takes the Alaskan plan that yields a dividend for everybody who’s a stakeholder in the oil economy and turns it on its head. And says let’s give everybody who’s a stakeholder anywhere a dividend based on what we collect from a progressively rising fee on the greenhouse gas emissions.

Well, what could be more logical and more Republican than that? Not growing government on the back of collections and dividending it out to consumers to make their own choices in a way that benefits society and allows everybody to make choices that progressively account for the externalities. We’ve got to begin having that discussion it’s become a static discussion around “here’s my architecture and super plan of the cap and trade thing that saves the world, and if you don't sort of agree with my super plan, you're missing out.” Well, we kind of, you know, we passed that. And then there's the carbon tax, did someone say tax? Someone said tax. Did you say tax? Who said tax? I didn’t say tax. You know, so we've got that whole fear and cowardice and loathing thing going on. And we actually need to get to you, the essence of your question, which was how do we get from here to there in a way that a utilitarian basis serves all of our people so that we rise together.

And that’s about transition by design, and you're asking about policy by design. And if we want to not fall into the extremes of weird, autocratic neofascism, predatory behavior or weird socialistic retroactive ideologies, we need to fortify a marketplace that needs price signals to let the population act and participate and be entrepreneurs and free enterprise and consumers with their own discretionary basis. And that's going to require some sort of fee and dividend some sort of tax that prices this externality.

**Greg Dalton**: Top that Tom Steyer.

[Applause]

**Tom Steyer**: I want to officially welcome Andy Karsner to the Democratic Party.

[Laughter]

I should mention to him you can never go home again.

**Andy Karsner**: I wouldn’t go that far.

**Tom Steyer**: Because the fact of the matter is when you look at American politics. The Democratic Party is dying to put a price on carbon, is dying to put, to do exactly what Andy's talking about, which is price externalities.

Let the market act. Has taken traditional Republican proposals that came right out of the Montréal
protocol in the late 80s. Do the exact same thing here and it's we're just, you know, it's kind of like Friday night and we just want a date.

**Andy Karsner:** Will it be in the Democratic platform?

**Tom Steyer:** Well, I’m not writing the Democratic platform, Andy. What I will say is this: if you go and look and we challenge all of the candidates and will continue to, to come up with their solutions. The Democratic candidates are all in favor of comprehensive climate action as hard as possible. So if you ask me will the Democrats, did we try and put through a cap and trade policy in 2010? Yes. Did we get a single Republican vote in the Senate? No.

**Andy Karsner:** It didn’t go to vote in the Senate.

**Tom Steyer:** You're right, but we didn't have one.

**Andy Karsner:** Definitely. It won a single Democratic vote in the senate, didn’t get to vote, didn’t get pass the read.

**Tom Steyer:** In this, everything you're standing for is something that the vast bulk of Democrats want.

**Greg Dalton:** We’re talking about energy with Andy Karsner and Tom Steyer. Let’s go to our next question. Welcome.

**Male Participant:** Thank you. Thank you guys so much for your talk. My question is around something that I see is kind of underlying a lot of the issues that you talked about today. And that is accountability and the lack of it that we see in a lot of the public officials as you spoke about. So my question is what is it going to take kind of what is it, what’s going to have to change for these public officials to begin to hold themselves accountable to the trends that we clearly see in their voter populations. And maybe what are some things in movements or trends that excite you that are working towards achieving that goal?

**Greg Dalton:** Tom Steyer, you said earlier, that people don't really, politicians don't lose their job because of a vote on climate because it's too far down the list.

**Tom Steyer:** Well, I said something; I said something slightly differently from that. What I said was that Republican voters don't prioritize climate as one of their top three issues and therefore they don't change their vote based on climate. And therefore if you're running in a deep red district where your opposition is -- where you're fighting to be the most conservative person, you will not lose your position by disagreeing with the majority of your constituents on climate. The way that this will happen and we are seeing it happen is a combination of two things. In the purple states the places that can go either way we have four Republican senators who are in favor of the clean power plan. And the reason they've moved is they don't think they can get reelected if they oppose the clean power plan. They're in states where it's very close, Independents will be there. And so there are two reasons that could be true, it could be because people really, really care about clean energy and climate and so therefore you can't win in that state unless you're in the right side. Or it could be that not accepting common science is so stupid that you have a right to do it but you basically disqualified yourself with a number of the people or the voters.

So for instance I like to say nobody's top three issue is the law of gravity. But if you want to run for Senate or governor and you don't believe in the law of gravity. A lot of people are just going to go it’s great, you cannot believe in it but we’re not going to vote for you because it's too stupid. And that is happening, we do see that. That even for people who don't necessarily prioritize this in a way that,
you know, I do, they do think, gosh if you don't accept science on this what else don't you accept science on? And that's really not an appropriate attitude for somebody who wants to hold high office.

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

**Male Participant:** Thank you so much. Mr. Steyer and Mr. Karsner, thank you so much for coming and for all you've done to participate and create a discussion around climate change. It seems to me that in a lot of, you know, climate change discussions it has become a binary debates when one side is renewables and on the other side is fossil fuels. Now it seems to me that we've lost a lot of rational thoughts around nuclear power as a basal power as well as carbon free. My question to you is around the field of advanced nuclear technologies which has been spurred by Bill Gates investment in TerraPower and Peter Thiel in Transatomic. What do you think specifically about prospect investments from both the government standpoint as well as private initiative standpoints, in the field of inherently safe advanced nuclear technologies? Thank you so much.

**Greg Dalton:** Andy Karsner, nuclear power.

**Andy Karsner:** Yeah, so I think my own feelings sort of lit up the Twitter verse last week inadvertently. I made one throwaway statement in an hour panel and it ended up being everything by saying that we can't do this without nuclear power. And Exelon just announced today they're going to retire two more reactors tantamount to in excess of 2 gigawatts. And they have plans for four more retirements of reactors. We've only begun in the last three or four years retiring reactors. We have the oldest fleet in the world. Therefore, we have the oldest cement in the world. We don't know how the containment vessels work at this age and we have no plans for replacement and we have no real logical R&D schedule to commit ourselves to the moral obligations we have, having unleashed the power to change the world from splitting the atom in the name of defense in the name of armament.

We did this to the world, we unleashed this and we are the ones who put the systems in place to bury the waste, to monitor it, we’re the ones with the fire brigade when something goes wrong in Fukushima. And the very idea that this country is prepared to vacate the field and read our manuals in Chinese for the next century as we retire our reactor fleet without a serious effort to detoxify the end of the waste streams and apply ourselves with serious science and technology to reform and update something that cannot be undone. Pandora's Box has been opened. The atom has been split. We now have to go the rest of the way and figure out how to take away the effects, make it benign and not adverse to our living or to those who people who might dig it up 150 years or 800 years from now. And we have the capacity to apply ourselves in that way. But we're going to have to get rid of mythology around it and we’re going to have to understand what is elemental about having large emission free power available to us as we transition over this next century to an emission free decarbonized world. And to do that with blinders on, is the wrong thing. We have to scale all the renewables as fast as possible but it's not going to be enough.

And so if you really embrace the science, you've also got to do the math. And I commend Bill Gates and Nathan Myhrvold and all the entrepreneurs. I’m meeting people who have no exposure to the NRC or Oak Ridge or Admiral Rickover. Young people in their twenties from MIT who are saying how do I perfect this in some way, how do I work with physics in some way to give ourselves an emission resource? And I think we’ve got to be pursuing that without bias and also not co-opted by those fossils from the nuclear Navy who are just saying it will always be fission at this rate with this reactor design at any cost. That's the wrong thing as well. So it's that next generation we need to be after and be after it aggressively.

**Greg Dalton:** Tom Steyer, many Democrats are ideologically opposed to nuclear. Should new
nuclear be part of America's future?

**Tom Steyer:** So let me say this. I do not have Andy's fervor in the sense that this must be done, that it's our only solution that we will lose unless we do this. I have looked at the next generation of nukes, including TerraPower I've looked at a bunch of them. And Andy's right they don't produce greenhouse gases. But the existing nuclear reactors, the reason we haven't built any is in order to make them safe under the current regulations, they are way too expensive. And the whole point about the next generation is to see whether we can do it at a level that's cheap enough to compete in a safe way in producing commodity power. The experiments are ongoing, people are investing hundreds of millions of dollars and they're hoping to build pilot plants and see what happens. But the fact of the matter is, let me disagree strongly with something that Andy said. He said we can't do it without nuclear, that's not true.

[Applause]

If you go and look and see how far we can take renewables? Much farther than we -- than anybody understands. The fact of the matter is 98 plus percent of the new electricity generation in the United States in the first quarter was renewable.

The fact of the matter is we have an enormous way to go on renewable. Are these technologies that may turn out to be both safe, cheap, and produce no greenhouse gases? Absolutely. And if they do, God bless 'em. But the fact is there are a lot of technologies out there that we're working on, including nuclear but very much not limited to nuclear; we can do that. So when I think about this we're working on a suite of solutions from a technology basis. We're going to be able to solve this and we are not dependent on any one of those solutions. Definitely not including nuclear. We can do this, we will be able to do this we will do this and I think there's a very strong argument that the way we're going to do it is through renewables and storage.

[Applause]

**Greg Dalton:** We're at the end. I want to ask -- apologies to the questions. I want to ask each of you a heart question, which is what gives you briefly hope and fear when you think about climate, knowing what you know, Tom Steyer?

**Tom Steyer:** My hope is Americans we always do it. We are very ingenious. We look around and I look at a friend of mine here today who's Dutch, there are hundreds of millions of smart people; if we put our mind together we get things done and we stand up for the right. That's my hope. My fear is we need to come together and accept the challenge. That's my only fear. If we do that, we will have the most marvelous experience together of success.

And so if we will accept the challenge and understand how urgent it is that we act together, then this will be another great experience for us in conjunction with the rest of the world. It will be a new Great American opportunity to work with our allies and people around the world in the way that we will always be grateful for.

**Greg Dalton:** We have to end it there. Our thanks to Tom Steyer, the investor and energy advocate and Andy Karsner, Google X space cowboy. I’d like to thank our audience in the room at the Commonwealth Club and online and on air. I’m Greg Dalton. Thank you all for coming.

[Applause]