

Dr. Leah Stokes (00:02):

This is A Matter of Degrees. And I'm Dr. Leah Stokes.

(00:04):

Happy New Year to all our listeners. We're back in your feed with an exciting special episode from a live conversation I had last month when I had the honor of receiving the 2024 Stephen H. Schneider Award for Outstanding Climate Science Communication from Climate One.

(00:23):

In this conversation, I sat down with Greg Dalton, who is the founder and co-host of Climate One, and we discussed a lot of my favorite topics, including how we can change our energy system, the Inflation Reduction Act, everyone's favorite law, and bringing people into the climate movement. Also included in this episode is a conversation with my good friend, the amazing writer, historian and activist Rebecca Solnit, which she had with Climate One back in 2023. Her conversation about the pace of progress, not giving into despair, and the power of coming together during a disaster, those are topics that are just as relevant today as they were two years ago. So you can think of this episode like a double feature. You know, when you go to a movie theater and you see two films at the same time. And if I do say so myself, watching these two films is a great choice. So as we prepare for the year ahead, I think that sharing conversations like these, they can help us start the year feeling energized and remind us about the need to stay focused and united and keep welcoming more people into the climate movement. So with that, let's head to San Francisco, specifically to the Commonwealth Club. And I hope you enjoy listening to these conversations.

(01:43):

I began working on climate around 2005. This is also when Hurricane Katrina happened, and the next year, 2006 An Inconvenient Truth came out. And that was such an important film to wake up so many people to the climate crisis. And I saw it in person at the University of Toronto. But the thing I remember the most from that experience of watching the film was actually the credits. I don't know if people remember the credits from An Inconvenient Truth like I do, but it's a black screen as credits are with white text. But rather than just saying, you know, here's who directed it, and here's the thing, it said, you can stop the climate crisis. Oh, this is when I leaned in and got pretty excited and it said, you can reduce your carbon emissions. In fact, you can even reduce them to zero. And then what was the secret? Recycle and turn off the lights and change your light bulbs. And you know, it's, that was the moment then. It's not a criticism of anybody who wrote those credits. I doubt it was Al Gore himself. But that era of how we thought about climate action, what I was doing at that time too, was getting students to turn off the lights to reduce energy. If we just use a little bit less fossil fuels, then yay, we're solving the problem. And I think that that's not really true, unfortunately. <laugh>

Greg Dalton (02:58):

Well, and there's, but there's a, a story underneath that, which is a couple years before that it was British Petroleum mm-hmm <affirmative>. Which came up with the idea of the carbon footprint calculator on their website. And they invested a hundred million dollars. So, you know, it might've been natural for people to say, what can I do? And there was a fossil fuel industry funded campaign to put that back on us.

Dr. Leah Stokes (03:20):

Absolutely. And that's how it ends up in the credits of An Inconvenient Truth. Right. And we all spend this period trying to figure out how we can shrink our impact. And what I've really started to think about as I've gotten more involved in clean electricity and electrification advocacy, which is a paradigm shift, right? It's not just burn a little bit less fossil fuels. It's get off of fossil fuels, move towards clean electricity and electrification. What I've started to think about is not how can I make my impact as small as possible,

like a carbon footprint trying to shrink, but actually how can I make my impact as big as possible by joining with others in campaigns to try to change policies and laws so that we're not just trying to make marginal incremental improvements on a fossil fuel-based energy system, but actually change the system towards clean electricity and electrification.

Greg Dalton ([04:09](#)):

Right. As Bill McKibben says that often, you know what the most important thing an individual can do is not act as an individual.

Dr. Leah Stokes ([04:15](#)):

Mm-hmm <affirmative>.

Greg Dalton ([04:16](#)):

Join with others. So you were very involved in the Inflation Reduction Act, you know, the biggest piece of climate legislation ever. I'd like to set the story and then dig into that with a little bit with you. You know, so Al Gore awakened many people, people realized that we needed an economy wide approach to climate change. It never really got to the level of national politics until around the, the 2020 election. And suddenly we had Democrats tripping over each other saying 1 trillion, no, 3 trillion, I think it got up to 16 trillion.

Dr. Leah Stokes ([04:43](#)):

That was Bernie Sanders. Yes.

Greg Dalton ([04:44](#)):

Right. And, and it was. So we had this competition for like them trying to outdo each other. And you know, Biden the moderate wins, he gets pulled a little bit more to climate because with Bernie, Green New Deal, first there's gonna be, you know, Build Back Better. It's gonna be hugely ambitious. And then political rowdy sets in and it gets shrunk down into the Inflation Reduction Act where trillions become billions. Right. And when it does get passed, some people are like, Ugh, this is a disappointment. It wasn't as big as we wanted. There's a lot of stuff in here we don't like nuclear, hydrogen, carbon capture. So my idea is that a lot of the things that are in there that Democrats and climate people initially didn't like are now what's gonna keep it alive. Because if it had been what Biden really wanted, the new administration would be taking a sledgehammer. Instead they're gonna be coming with a scalpel. So isn't that disappointment from some years ago a good thing now because this policy that you worked so hard on is more likely to live?

Dr. Leah Stokes ([05:47](#)):

Yeah. Well, the Inflation Reduction Act, it's really hard to estimate how much money will actually be, it only got harder after the election.

Greg Dalton ([05:55](#)):

But it's only two years in, right?

Dr. Leah Stokes ([05:57](#)):

It's only two years in. There's a huge chunk of money that are grants, which is money that will hopefully disproportionately benefit lower income folks, communities of color, disadvantaged communities, that money will often flow through the states. So there are programs, for example, to help everyday

Americans get a heat pump. For example, the state of California, as well as New York, have already opened up these programs that if you make a certain amount of money, you can go online and see if you can get a rebate back from the state to, you know, put a heat pump or heat pump water heater in your home. So those programs, when the money is out the door and in the state coffers, it's not like the Trump administration can take that money back. The money that is harder to estimate. And part of the reason why we don't know exactly how much money we'll spend is all these tax credits and there are a lot of them.

Greg Dalton ([06:43](#)):

And there's no ceiling on them, right?

Dr. Leah Stokes ([06:44](#)):

There's no, these are uncapped tax credits.

Greg Dalton ([06:46](#)):

Yeah.

Dr. Leah Stokes ([06:46](#)):

That's something that could change. The Republicans could decide to cap them. But that is probably not a very popular thing to do because as a lot of different trackers have been showing, like for example, the clean economy tracker, three quarters of the money is flowing into Republican districts. So if you look at, for example, where these tax credits to manufacture batteries or solar panels are going, they're disproportionately going to Republican controlled members of the house and Republican senators districts. And so why would the senators and members of Congress get rid of jobs in their own backyards, especially manufacturing jobs that, you know, provide good paying living wages to families that are, you know, theoretically voting for them. So those are the policies that are going to be fought over in the next probably two years before the 2026 midterms. And my bet, I could of course be wrong, is that corporations are gonna show up and say, we want these policies to stick around and, and keep them.

Greg Dalton ([07:45](#)):

Well already, you know, when Trump was elected the first time, the auto industry was right out of the bat saying, okay, we want to undo some of these things, that fuel efficiency standards that Obama put in place, this time, the auto industry saying, Hey, that EV tax credit, we'd like to keep that in place.

Dr. Leah Stokes ([07:59](#)):

Mm-hmm <affirmative>.

Greg Dalton ([08:00](#)):

So, so the industry's in a very different place. Even some of the, uh, fossil fuel billionaires that are influential in this administration have made renewable bets. So you wrote a book on, you know, interest groups in the battle over clean energy. I'm curious what you see as kind of the shifting alliances. 'cause it's a real scramble going on. This is not 2016, it's not 2020, you know, the US chambers in a different place. Auto companies are in a different place.

Dr. Leah Stokes ([08:21](#)):

Mm-hmm <affirmative>.

Greg Dalton ([08:22](#)):

How do you see kind of this shaking out? Or is it too early to tell?

Dr. Leah Stokes ([08:25](#)):

Yeah, so this book that I wrote, it's called Short Circuiting Policy. It's an academic book, but a lot of practitioners have read it, which was shocking to me because when I was writing it, I thought it was the most useless thing I had ever done in my life. And why was I wasting so much time on this thing when the planet was on fire? But it turned out that a lot of people have read it who are activists because they find it useful. Because I asked the question of why do some laws continue on and why do others get rolled back? That's exactly the same question we find ourselves asking right now. Is this law going to continue on or is it going to be rolled back? And one of the patterns that I talked about was interest group power. So basically, if you have opponents, like for example, fossil fuel companies with very strong ties to the government who have a lot of money that they give through campaign contributions and they capture the courts and they capture the bureaucracy and they capture the public opinion, you know, they can use that power to roll back laws or even just weaken them during implementation.

([09:24](#)):

But if you start to have the clean energy industry have power in a similar way where they're well networked with, you know, members of Congress, with the executive branch, with the presidency, where they are influencing public opinion and influencing the courts, they can start to battle these opponents to the clean energy transition. And you know, people can have many legitimate feelings about, for example, Elon Musk. I'm sure many people do. But the fact is that he is a person who made money in not fossil fuels, but in solar and batteries and electric vehicles. That's a very different thing than, for example, during the first Trump administration when Rex Tillerson got appointed to run the State Department. So

Greg Dalton ([10:06](#)):

Right. And Tesla, Elon Musk make a lot of money selling carbon credits. So that's an incentive to keep the carbon markets in place. In his first speech after the election, president Obama said, quote, purity tests are not a recipe for long-term success. So I'm curious what you think about that and how that applies to climate. 'cause sometimes there is a purity issue on the left about being vegans and how pure people are. And we want these policies that are pure and not, not compromised with fossil fuel interests. Is this a time for coalition building and questioning purity?

Dr. Leah Stokes ([10:38](#)):

Yeah, I would call myself a progressive. And after the Inflation Reduction Act passed, there was a lot of conflict in the progressive part of the climate movement. And I, a friend of mine, Kate Marvel, who's a wonderful climate scientist, told me to go read Homage to Catalonia by George Orwell, which was a fascinating thing to read because basically you discovered that the left is infighting and you know, thinking that they are their enemy rather than, you know, the fascists. And that that's a tale as old as time, so to speak. And so we sometimes have this tendency to see people who are really close to us, who agree with 90% of what we agree with, but have some small difference and view those people as the ones that we should attack or focus on and try to fix, as opposed to the people we maybe agree with 50%.

Greg Dalton ([11:21](#)):

Freud talked about the narcissism of the small difference.

Dr. Leah Stokes ([11:23](#)):

There you go. So you see a tale as old as time, and you know, in the wake of the, you know, presidential election in the fall, Representative Alexandria Ocasio-Cortez, who I think is an amazing climate communicator, she talked a lot about how in this moment what we need to be doing is building our coalition. We need to be bringing more people in. We can't be making people feel excluded, or if they're not perfect, you know, they're not vegan or they're not biking everywhere they go, because I don't know, they've got kids in a minivan or something like that, that they're somehow excluded from our movement. We weren't...

Greg Dalton ([11:54](#)):

But that's not a common view. There's a lot of righteousness and a lot of exp-

Dr. Leah Stokes ([11:58](#)):

Well, I'm with Representative Alexandria Ocasio-Cortez <laugh>. If it's her view, I think she's rather right about that. We have to be building and bringing people in and, and that's what's going to make the climate movement succeed. But more broadly, progressive movements.

Greg Dalton ([12:10](#)):

Right. But, but you know, I, maybe we all practice this sometimes is virtue signaling, like, oh, you eat meat. Like, oh, you know, you can't be one of us.

Dr. Leah Stokes ([12:18](#)):

Well, I view the climate problem as a fossil fuel problem first and foremost. That's my orientation. I work on the energy system. This whole problem began when we started to dig up carbon stores from underground and combust them, burn them, put them in the air and the water in the active cycle. And so that's the part of the issue that I tend to focus on. And per your point about shaming, it's not about telling people you're a bad person if you burn fossil fuels. My attitude is that we were all born into a fossil fuel based energy system. Nobody chose that. You weren't like, Hey, I'm a 1-year-old baby and I choose a fossil fuel based energy system. <laugh>, you were born into that. Even my grandparents, my grandfather who's still alive, and he's I think 96, he was born into that system too. You can actually see some of the anthropogenic signals in the earth system going back to the early 20th century. So, and so, the work of our life is not to make people feel bad that they were born into a fossil fuel based energy system. The work is to change that. The work is to make it so that there is a generation in the future that is not born into this fossil fuel based energy system. So shaming people and making them feel bad, that doesn't really help with the problem, does it?

Greg Dalton ([13:32](#)):

So you think that, you think that the election was kind of, you know, over interpreted overanalyzed because not many people were climate voters. Right? So how do you think that that, you know, make sense of the election? Was it over interpreted? Are we overreacting to the election?

Dr. Leah Stokes ([13:49](#)):

Every time we have an election, a lot of ink gets spilled about. Why did it go that way? It's over interpreted. I mean, I'm political scientists. I have some political scientist friends in the room. I imagine they're gonna agree with me. There's a lot of fundamentals that drive from a political science perspective.

Greg Dalton ([14:04](#)):

There's a whole industry of like feeding our anxiety.

Dr. Leah Stokes (14:06):

Yeah, yeah. But there's a, the political science basics of what we would say is that it's sort of like what Bill Clinton said, it's the economy stupid. Right? This was an inflationary period. It's really was a COVID election in many ways, a pandemic election. A lot of people lost businesses or lost jobs. There were really big impacts on their personal lives because of the pandemic and, and the lockdowns. And people had feelings about that, you know, that the impacts of those decisions were not equal across society. Some people could stay home and keep their jobs, you know, and others could not. And so a lot of people were really angry and then they were watching the costs of everyday goods in their lives go up. And inflation is really unpopular. People don't like it when a dollar is worth less than it was yesterday. And so you can look across the world and see that almost, you know, without exception, the incumbent party has been voted out this year. And when it comes to climate change, I certainly don't think that this was an election where, you know, people were backlash against the climate policies of the Biden Harris administration. People sort of thought, yeah, that's fine. There's a lot of manufacturing jobs. That sounds good. It really wasn't the central driver. I really think pandemic and the inflation were.

Greg Dalton (15:22):

Yeah. Even, you know, gas prices are often, uh, factors in president elections.

Dr. Leah Stokes (15:26):

Mm-hmm <affirmative>.

Greg Dalton (15:26):

Not so much this time. Right. No, I mean, you know, inflation writ large, yes. But not so much. So there was a lot of people, you know, climate people who were like, oh my gosh, we're toast if, if this goes the wrong way. Do you think there was too much fear? Was there hype about the, the climate implications of this election? 'cause you are more concerned about immigration implications than climate.

Dr. Leah Stokes (15:48):

Well, what I will say is that when you have an incoming president-elect who's talking about deporting 20 million Americans or undocumented people in this country, oh. Or maybe, maybe even citizens, I don't know how broadly they're planning to go with this, ending birthright citizenship, which is, you know, required under the Constitution.

Greg Dalton (16:09):

14th amendment.

Dr. Leah Stokes (16:10):

Yeah. Yeah. Some of these things to me are very concerning. And I think that there's been a lot of focus too, both from the president-elect as well as many of the people he has appointed on that specific issue. By contrast, there isn't as much focus on the people that he's appointed on repealing everything we've done with clean energy investments. You look at somebody like newly, uh, elected Senator Curtis from Utah who had been in the house. He lives in an electrified home. This is a Republican member.

Greg Dalton (16:40):

Oh, I've talked with him about that. He has a, he has a climate friendly doggy door that he's very proud of that is like heat insulated. And he showed me photographs. There's a, you can look on on YouTube. He's, he's kind of a nerd about this stuff. Yeah.

Dr. Leah Stokes (16:51):

Yeah. And, and he ran a conservative climate conference just at the tail end of the election in Utah and brought a lot of Republicans there. And he's already spoken out about what they plan to do with the energy parts of the, the, the Inflation Reduction Act. And he said, look, we might make some tweaks here and there, but we're not gonna repeal the whole thing. And keep in mind too, that the House, the House of Representatives is likely to be about 217 to 215 members Republican controlled for the first 90 days. Because Trump has appointed three people

Greg Dalton (17:20):

Right.

Dr. Leah Stokes (17:20):

To his administration, shrinking the Republican majority. And if you look across the House of Representatives at any given time, somebody is sick or they've died, or they've had a kid, or they'd like to run for the governor of New York, hypothetically.

Greg Dalton (17:34):

Or they've gone to jail.

Dr. Leah Stokes (17:35):

Yeah, yeah, yeah. So yeah, they've gone to jail. So, I mean, that is a razor thin majority. So when you look at the things that are being said, the focus, it seems like is really going to be on immigration. I think that those first hundred days, keep in mind, the first 90, they're gonna have a two seat majority in the house. It's gonna be hard to be like, you know, the number one thing that we should do is get rid of jobs in Republican house members' districts. I don't know. That wouldn't be on my top to do list.

Greg Dalton (18:05):

Right. A lot of the concern is about, about expanding supply, more drilling, et cetera. What, what's the worst case for that? I mean, I realize you're a political scientist, not an economist, but expanding supply depresses prices. It's a global commodity. It's not, you know, it's not like more is gonna be burned.

Dr. Leah Stokes (18:21):

Yeah.

Greg Dalton (18:22):

Right. But it seems like the climate people might be, dare I say, over worried kind of, you know, hyperventilating a little bit about more drilling, et cetera. It's bad if it's in your neighborhood for sure. And you know, sensitive habitat, Indigenous lands for sure. But, you know, just because there's more supply, it, it just depresses prices, you know, pushes some negative economic pressure on the industry.

Dr. Leah Stokes (18:41):

Mm-hmm <affirmative>. Mm-hmm <affirmative>.

Greg Dalton (18:42):

Which is not necessarily bad.

Dr. Leah Stokes (18:43):

Yeah. Well, another interesting thing is that president-elect Trump has been talking a lot about tariffs. Right?

Greg Dalton (18:49):

Sure.

Dr. Leah Stokes (18:49):

And putting them on Canada and Mexico, for example. And Canada's where I'm from, I'm also Canadian, supplies a lot of oil to the United States. And there have been some economists suggesting that that will massively reduce gasoline prices. It, particularly in the Midwest, if he does this, that will also be very unpopular. So yeah, I think that there will be some supply side policies that I don't agree with. You know, you have to wonder about, for example, LNG export terminals. The Biden administration could, for example, reject a bunch of LNG terminals.

Greg Dalton (19:21):

Liquefied natural gas going toward Europe to help them get off Russian gas.

Dr. Leah Stokes (19:25):

Exactly. So they could, they have a review going on right now at the Department of Energy where they could reject a bunch of terminals. I hope they do that as some of the last executive actions of the Biden administration. But you can imagine that the Trump administration will try to do more fossil fuel extraction, but the President doesn't have a huge amount of power over the amount of fossil fuels that are burned. Oil is a global commodity. It is priced globally. And the amount that is produced at any given time is largely determined by, you know, what that global price is. And so President Biden, for example, when he was first in office, did actually honor his campaign promise to stop new leasing on public lands of fossil fuels. Unfortunately, a Trump appointed judge overturned that about eight months into the administration. But, you know, despite the things that he tried to do to reign in the amount of fossil fuels that were being produced, it was actually the most fossil fuels produced in American history. And people really blamed him for that. But that was because the fossil fuel global prices were pretty high at the end of the Biden administration. So,

Greg Dalton (20:26):

Right. And he,

Dr. Leah Stokes (20:26):

These are difficult things for a president to control a lot.

Greg Dalton (20:30):

Right.

Dr. Leah Stokes (20:30):

You know, when it comes to production.

Greg Dalton (20:31):

I mean, he also came in to restore the rule of law. And those oil companies had contracts and leases that they were legally binding.

Dr. Leah Stokes ([20:38](#)):

Yes, very true.

Greg Dalton ([20:38](#)):

So you don't want a president to come in and say, you know, oh, you're oil, so your contracts don't matter.

Dr. Leah Stokes ([20:43](#)):

Yeah.

Greg Dalton ([20:43](#)):

I mean, he was following the law.

Dr. Leah Stokes ([20:44](#)):

Yes. That's on the permitting side. Yeah.

Greg Dalton ([20:46](#)):

Permitting side. Right. So things like Willow and Alaska, like there were contracts. So one of the things that I did, let me just say it, it's comforting to talk to you. 'cause you seem less freaked out about the election than what other people I talked to.

Dr. Leah Stokes ([20:56](#)):

<laugh>, I don't know if I'm less freaked out, I'm myself a immigrant to this country. So I haven't been a citizen that long. Um, think it should count.

Greg Dalton ([21:04](#)):

So you can, if if things get bad, you can go back home.

Dr. Leah Stokes ([21:06](#)):

I'm not saying I could leave, I'm, I'm saying, I'm concerned that we have an incoming president who doesn't seem to think that citizenship is real somehow and that is disturbing.

Greg Dalton ([21:14](#)):

So there was a big effort in 2009, Obama passed healthcare, didn't really force the Senate to go all in on climate, was criticized for that. And think these things come around about every decade.

Dr. Leah Stokes ([21:25](#)):

Yeah.

Greg Dalton ([21:25](#)):

What happened in 2022, the IRA, there was like 10 years of work foundation that had gone into that.

Dr. Leah Stokes ([21:31](#)):

Yes.

Greg Dalton ([21:31](#)):

So what you're saying is that the foundation is being laid now.

Dr. Leah Stokes ([21:34](#)):

Yes.

Greg Dalton ([21:35](#)):

While everyone is depressed and drinking too much, et cetera, you know, or looking at 29

Dr. Leah Stokes ([21:40](#)):

Yes.

Greg Dalton ([21:40](#)):

To, to build that infrastructure for that next step.

Dr. Leah Stokes ([21:43](#)):

Yeah. I don't really drink. So I'm already thinking about the next climate bill. And for example, we don't exactly know how to decarbonize the industrial sector. People have lots of ideas, don't get me wrong. But with my colleague Eric Masanet, an amazing, uh, engineer and a leading expert in industrial decarb. Uh, we actually have an episode of this coming out on our podcast, A Matter of Degrees. But we're thinking about how do we take low temperature processes? So these are things like making a bag of potato chips or pasteurizing milk, which we'll hopefully still be doing. Or, you know, making cans of LaCroix soda water. Right. How do we do that without fossil fuels? There are parts of our manufacturing base that are making things in this country, but they're using fossil fuels and they don't have to because they don't actually need super high temperatures. So people think a lot in the industrial sector about steel and aluminum.

Greg Dalton ([22:39](#)):

That aluminum LaCroix can.

Dr. Leah Stokes ([22:41](#)):

Yes. And then also with cement, it's a byproduct. CO₂ is a part of the chemical reaction. But people think like, oh, let's put a lot of attention on that. And they need to too. Don't get me wrong, thank you for everybody focusing on high temperature industrial decarbonization. But what about low temperature industrial decarbonization? How are we gonna do that? We've gotta figure that out. So we have a roadmap project right now, trying to think about how we do that. How could we get some pilot projects going on in various states? We, we have to do that and we don't exactly know how from a policy perspective we can make that happen. So now is the time to think about what do we need to get done, hopefully when there's a window.

Greg Dalton ([23:18](#)):

And get industry on board, so they're not fighting this.

Dr. Leah Stokes ([23:20](#)):

Yes. And give them carrots, you know, rather than just sticks. I mean, I am very pro-carrots, so people criticize the Inflation Reduction Act and they say, well, there was no carbon tax and carbon price. And if we had gone a more Waxman-Markey stick approach with that bill, I don't think in this moment I'd be like, ah, I think a lot of it's gonna stick around. Because people would be saying, oh, that's why everything's expensive. We have gotta repeal that going this more incentive-based carrots approach is very important.

Greg Dalton ([23:49](#)):

Centrist. So, so you, you're saying let's go durable rather than pure.

Dr. Leah Stokes ([23:55](#)):

Yes.

Greg Dalton ([23:55](#)):

And ideal.

Dr. Leah Stokes ([23:55](#)):

Yes.

Greg Dalton ([23:56](#)):

So Green New Deal might be the virtuous path. It ain't gonna last it, you know, it's not gonna be durable over time. Change of power in Washington.

Dr. Leah Stokes ([24:04](#)):

Yeah. I don't wanna criticize the Green New Deal or people who are dreaming big. You know, I think that is very laudable. And I think the Young Sunrise activists who I know a lot of who did that sit-in, changed everything. I really do. I think that having a vision, a positive, hopeful vision of what we want was a huge paradigm shift from the dominant narrative in climate policy, which was just make things more expensive and it'll change everything and make things better.

Greg Dalton ([24:31](#)):

Price on carbon. Price on carbon, yeah.

Dr. Leah Stokes ([24:32](#)):

Price on carbon or bust. Uh, I mean, that wasn't a hopeful positive vision. So I do feel that the Green New Deal is a big idea, was a big change. And the way that that went through the sausage making process of the United States Senate was the Inflation Reduction Act out came out the other side. But, you know, Sunrise, Representative Alexandria Ocasio-Cortez, Senator Markey, all the people involved in the Green New Deal deserve a lot of credit for what eventually passed in the Inflation Reduction Act.

Greg Dalton ([25:00](#)):

So you need that big aspiration and eventually it gets down to something else when it goes, goes through. You know, after Trump's first election, people took to the streets, March for Science, March for women, putting on certain types of hats.

Dr. Leah Stokes ([25:13](#)):

<laugh>, um, pink ones I think. Yes.

Greg Dalton ([25:14](#)):

Yes. <laugh>, you know, this time is different this time. There doesn't seem to be-

Dr. Leah Stokes ([25:19](#)):

We're tired. Is that what it is this time?

Greg Dalton ([25:21](#)):

So is it, is it wisdom or resignation <laugh>? Is it like, hey, that like, oh God, you know, or is it, I mean, yeah. Is it resignation or it's like, Hey, you know, I mean I interviewed Jane Fonda, she said like, you know, that big March didn't really create lasting change. It's a lot of work. It felt good for a few days. We feel powerful. And then what change really happened. So as a political scientist, what do you see about the response now? Is it more technocratic, more, you know, mass movement in the streets? Is it surrender and normalization?

Dr. Leah Stokes ([25:51](#)):

Oh gosh, I hope it's not that, you know, I'll talk about Rebecca Solnit's work. She wrote a book called Hope in the Dark. And you know, it was about trying to think about glimmers of possibility even when things are not going in the direction that you want them to be. I don't know how anti-democratic the next two years, let alone four years will be. Because keep in mind, in two years there will be a midterm and again, as a political scientist, we have this thing called a thermostatic response. Meaning people tend to go in the other direction, uh, after we go in one direction. So we had 2016, which Trump was elected the first time. But then the 2018 midterms is a huge progressive swing where the Squad first gets elected, the Green New deal Starts happening. You get this counter back.

Greg Dalton ([26:35](#)):

Especially with right now we have one party control of all three branches.

Dr. Leah Stokes ([26:38](#)):

Yes.

Greg Dalton ([26:38](#)):

That swing could be,

Dr. Leah Stokes ([26:39](#)):

Exactly. So really in the next two years, that will be this critical time period to see how far we undermine democracy in this country. I think a lot of people, uh, are ready to push back. Whether that looks like marching in the streets or, you know, challenging things that the Trump administration does legally as, for example, Earth Justice did so much during the first Trump administration. I don't know. But I do think that people are tired. Uhhuh is what my general hypothesis is. Right? We've all gone through this pandemic. It's had huge impacts on a lot of different people. And I don't think that means that people are resigned. It just might mean that the way we resist or the way pushback happens is slightly different.

Greg Dalton ([27:21](#)):

And I think it might be more local. 'cause I think the national is so toxic. People are just sick of the toxicity. Can be less toxicity on the local level where things are like, I know you 'cause you're in my city or my state. And there's, you know, mayors have, it can be less partisan or polarized 'cause they have to like pave the streets and get the garbage collected. So that's one thing. And that's also, you know, often there's a swing when, when Washington goes anti-climate, there's a swing back to the states and like cities and states matter, that's where the carbon is. You know, most energy, as you know, best is, uh, delivered through, you know, wires and cables that are regulated at, at the state and local levels. So maybe it's, it's more that's where people focus rather than Washington the swamp in Washington.

Dr. Leah Stokes (28:01):

<laugh> maybe, you know, this year for example, in California, the cap and trade program, it raises a lot of revenue. And in the past that money has gone to high speed rail, which you may notice, uh, doesn't exist yet, but maybe someday, they're starting to think about how they wanna spend that money. And what if they spent it on some of the ideas that we've just seen federally. So for example, helping everyday low income, uh, people in California electrify their homes or their apartment buildings. What about getting heat pumps for schools, as the great group Undaunted K 12 has been working a lot on, you know, what about getting more money to do solar community microgrids in the cities and counties across the state? That's an opportunity just in California this coming year to do a kind of, you know, Green New Deal Inflation Reduction Act investment program towards building.

(28:54):

What we wanna see, and this happens in states all the time, for example, a colleague of mine at Rewiring America worked, uh, in Colorado this past year to get a huge, hundreds of millions of dollars in the Excel electric utility territory to help people electrify their homes. That was actually more money that they helped get through this state action than the federal investments through the Colorado, um, rebate programs for homeowners. So, you know, there's always stuff to be doing when it comes to climate policy. I like to say I have like permanent employment for the rest of my life because this problem is so big and vast.

Greg Dalton (29:30):

It is, yes. Yes.

Dr. Leah Stokes (29:31):

And endless, unfortunately, I, I don't want that to be clear. I'd love to solve the climate problem and do more crochet or something like that. <laugh>.

Greg Dalton (29:38):

Yes. Yeah. Well, I always tell young people who come and say, they want to get into climate, like, yeah, it's a growth industry, <laugh>, there's gonna be more jobs work working on this. And you know, so those things, heat pumps, induction cooktops, electrifying our homes makes a lot of sense as a way to improve your life and, and clean up the atmosphere in our air. And in much of California, the cost of electricity has risen 50%

Dr. Leah Stokes (30:01):

mm-hmm <affirmative>.

Greg Dalton (30:02):

In just three years.

Dr. Leah Stokes (30:02):

Mm-hmm <affirmative>.

Greg Dalton (30:02):

Uh, the increase has been much less in places like Sacramento and Los Angeles, which have non-profit electric companies. But rising electricity prices are really starting to undermine this electrification and change the narrative of driving electric car for 10 years, I could always confidently say electricity is whatever it is. I can't do the math of, you know, kilowatt hours to miles per gallon. Electricity will be cheaper than gasoline. It's getting harder to say that now.

Dr. Leah Stokes (30:28):

Well, that isn't actually true for cars in California. So you still save money. It's something like, you know, a dollar to \$2 per gallon if you're gonna equivalent take the kilowatt hour to the oil. So the EVs, you still save money and there's still a good payback period, uh, payback in every corner of the country, including in Hawaii, which is interesting because they just burn oil <laugh> for a lot of their electricity. But anyway,

Greg Dalton (30:52):

But you take the point that rising electricity prices

Dr. Leah Stokes (30:54):

Absolutely

Greg Dalton (30:54):

Are a problem.

Dr. Leah Stokes (30:55):

Oh, it's absolutely a problem. I mean SCE and PG&E and SDGE

Greg Dalton (31:00):

These are California utilities.

Dr. Leah Stokes (31:01):

The big California utilities have been jacking up electricity prices way too much. And unfortunately, they've been scapegoating little parts of the electricity, uh, bill where we like have little bit of money to like help a school electrify their, you know, HVAC or help low income folks do an energy efficiency thing on their house.

Greg Dalton (31:21):

And it's not just California, it's Oregon too. It's other places.

Dr. Leah Stokes (31:23):

Yes. But that's not the fundamental driver. If you start looking at profits, the amount of profits that these electric utilities have been taking, I mean, they're astronomical. If you look at the amount of what we call gold plating, which is overinvesting in certain parts of the energy system, because utilities are monopoly companies, if they can spend more money, they can charge all of that to the state and then they can put

more profit on top of that. So from my perspective, what we really need is better regulators in the state of California, who are pushing down those electricity prices. Not, you know, taking away an HVAC system from a school because it costs somebody like \$1 on their energy bill in March. But we also have to think about why are gas prices so cheap too? You know, people are not paying the true cost of what the gas system is. Now in some parts of the country, not as much in California, but in many parts of the country, if you electrify your home, you do save money. And the people who save the most are people on delivered fuels. So if you have, you know, people in, for example, Maine and Massachusetts who have oil or propane, parts of the Midwest, if you switch to heat pump, heat pump water heater, you save money.

Greg Dalton ([32:31](#)):

So if fuel comes to your house in a truck.

Dr. Leah Stokes ([32:34](#)):

<laugh>, you're definitely gonna save thousands of dollars a year. Yes. This is what Rewiring America has calculated. But also if you put solar on your roof and you electrify your home, you do the whole thing, which is what I have done, then the payback period tends to work better because you're generating that cheap, clean electricity yourself and your electricity bill's going down. So we have to get this right though, because we can't have it be that burning a poisonous gas in your home that is literally leaking carcinogens, benzene into your kitchen is better and cheaper somehow than, you know, induction. You know, just using the power of magnets to boil some water very fast as I now do. So we have to get that right.

Greg Dalton ([33:13](#)):

So this is an economically rational argument. You quoted Bill Clinton as saying it's the economy stupid. Yet you also have a undergraduate degree in psychology. And I think that we often, policy nerds like us and you know, talk about, you know, and people in climate say science, facts, but doesn't that miss like part of, you know, human reality? We're emotional creatures who use our, you know, our brain to justify the emotional decisions we make. So I want to talk about, you know, the side of, of this transition that's scary to a lot of people. Uh, particularly if you're in a fossil fuel state or it's talked about in very fearful terms. Oh, the left is exaggerating climate. You're always, the sky is falling. You, you're a bunch of hysterical people. Talk about that part that's not the rational brain that talks about kilowatt hours, but just climate is an emotional opportunity or threat.

Dr. Leah Stokes ([34:07](#)):

Yeah. So this podcast that I run called A Matter of Degrees with Katharine Wilkinson, she's a really good counterbalance to me because she's a very heart forward person. Really emotions.

Greg Dalton ([34:18](#)):

She is lovely that way.

Dr. Leah Stokes ([34:19](#)):

Yes. Yes. And so she tends to bring that energy. She co-edited the book, All We Can Save with, um, Ayana Elizabeth Johnson. And you know, they put poetry in the book. I mean, it's beautiful. Uh, and so that is a way that she tends to approach these issues. And I think that is a really important thing to bring.

Greg Dalton ([34:37](#)):

She brings her whole self.

Dr. Leah Stokes (34:39):

Yeah, she does. And I do too. It's just that myself happens to like kilowatt hours and wonky subjects as well as Mary Oliver poetry. So, you know, I think that we do have to bring that. And I think that's why when we were talking about shaming people, that isn't really the way that I tend to go with my messaging. I think that too much of the environmental movement has been focused on sort of individual action and making people feel that they are not passing a purity test. And shame is not a great emotion to like, bring people to your party, right? Like, people don't like feeling shame. It's probably one of the worst emotions that we experience. Exclusion, shame, othering. Right? And so I think that we have to build a movement that calls people in, that makes them feel part of something fun. It's more like throwing a party, right? Rather than saying to people, you're not invited. So that, that's really the energy that I think will help propel the climate movement into, you know, more policy wins, which is always the best thing to have when you get up in the morning, get another policy win.

Ariana Brocious (35:46):

I'm Ariana Brocious. In 2023, I had the opportunity to speak with author and activist Rebecca Solnit live on stage at the Commonwealth Club in San Francisco. We had a wide ranging conversation and much of it centered on climate change, how our understanding of it has evolved, how we can handle the range of emotions it brings with it, and how to keep optimism alive.

Rebecca Solnit (36:09):

I think if I have a superpower, its slowness, which means that I see long stretches of time, which lets you see change. And one thing I run into a lot with climate is people often conflate impossible with unimaginable. Nobody in 1973 could have imagined 2023. But everything good in 2023 is because somebody in 1973 or some past, uh, moment fought for it. And I like 1973. 'cause you can see the most mainstream narrative is that the civil rights movement, which means the Black Civil Rights movement, was really in decline at that point. Arguably. You could debate that. But the Native rights movements were really surging. The women's movement was surging. Gay rights were really beginning to gather force, the disability rights movement was happening. And the environmental movement, um, which was something really different than the earlier conservation movement, was also really beginning to do stuff.

(37:11):

And even the language for thinking about all these things had to be invented. And I know feminism best in some ways, words like domestic violence and marital rape weren't concepts or terms people had. So you could see they made mistakes, they stumbled, they didn't quite know what they wanted and what they were doing. But so much good stuff comes of it. So I feel for 2073, it behooves us all to do everything we can towards that better future for human rights, for biodiversity for 30 by 30 and beyond. And for the climate, knowing that most of us won't, oh, there are probably some young people, maybe <laugh>, most of us won't be here in 2073. I don't plan to be. And, um, I think it'd be 112, you know, so that you, that you, you can't see the future, but you can learn the shape of change from the past. And to see it also means seeing indirect consequences and other impacts. A lot of despair, et cetera, comes often from people thinking that if, you know, like if we have, if we make demands of a government on Tuesday and they don't fall to their knees and say they were wrong and we were right and give us everything we asked for by Thursday, then we failed. And that's just not how change works, although it's how defeat works.

Ariana Brocious (38:32):

So a lot has changed since you entered the climate movement, the environmental movement. Um, how do you evaluate the progress that's been made? When we look back and we've talked about some of these, you know, the recent bills, but when you look back on maybe the last 20, 15 or even 5 years, what we've done, and also considering that as there's been progress, there's been continued acceleration of climate

impacts. You know, last year was the hottest one. This is the hottest year on record. Yeah. And that keeps happening.

Rebecca Solnit ([39:02](#)):

Thank you for asking me a, a slowness question. <laugh> a long-term change. I think if you told people where we were with renewables and how powerful and engaged the climate movement is and how much the public is engaged compared to where we were 10 years ago, I don't know how much people would believe it. And I think some of the problems we still have are that people's, a lot of people get this vague understanding and don't get updates. The idea that, that we don't have the solutions, that nobody cares, that the media's not covering it are all things that were reasonably true to say 15 or 20 years ago. They're completely inaccurate now. Everything is different. And the early climate movement was polite. It was sort of requesting and kind of trusting governments and corporations to do good things. The idea that we had to fight them, blockade them, call them out, you know, et cetera. I watched the founding of 350.org and watched it go from a kind of nice, polite organization to a much more radical one. We grew up in the sort of the age of fossil fuel is regnant and triumphant. And it's been completely normalized. And part of our job is to de-normalize it.

Ariana Brocious ([40:15](#)):

Yeah, yeah. I mean, the idea that, you know, it's a normal thing to turn on your gas stove and smell gas in your home, that you're combusting methane.

Rebecca Solnit ([40:23](#)):

Which we now call methane.

Ariana Brocious ([40:24](#)):

Yeah.

Rebecca Solnit ([40:25](#)):

When we're telling the truth, instead of natural gas.

Ariana Brocious ([40:27](#)):

When that change happened for me. I remember thinking it had been so normal and now I was sort of like, oh, you know, really it affected me. Good climate news, good environmental news can be slow moving.

Rebecca Solnit ([40:39](#)):

Mm-hmm <affirmative>.

Ariana Brocious ([40:39](#)):

Can be highly technical. I think it can be easy for people to read the news and think that we are in a pretty dire situation. How do you think about climate defeatists versus climate denialists or deniers?

Rebecca Solnit ([40:54](#)):

I feel like there's concentric circles of climate understanding, and then I feel like I'm making a model of Dante's hell <laugh>. But we'll set that aside. I think his rings sort of descended. Mine might ascend, maybe this is purgatory, but, um, but I feel like the denialists, um, are just refusing the information. And I

think a lot of it is because what the natural world is constantly telling us is everything is connected to everything else. And we all have responsibility towards the whole, which is a very anti-rugged individualist, anti-free marketeer, um, libertarian things. But climate defeatists who abound, they don't deny that climate is real. They often deny that solutions are real. That the movement is real, that coverage is real, that people caring is real. So they have their own amount of denial. There's a kind of depression where you just want to sit in the corner or curl up in fetal position or whatever.

(41:49):

But these sort of evangelists of giving up, like the energized ones, I don't fully understand it. When you get to the organizers, the scientists, the journalists, the people who are really involved, they're scared, but they're not despondent. They know that this is the decisive decade that it, that we, the future is what we will make it in the present. There are parameters, of course, we can't make it like we never burned those trillions of tons of fossil fuel and put all that carbon dioxide in the upper atmosphere. But we have tremendous choices in this moment. And the difference between the best case scenario and the worst case scenario is profound. I wrote an essay called Despair is a Luxury because for most of us giving up, at some level, we secretly know that we can give up and our lives will still be relatively comfortable and safe.

Ariana Brocious (42:40):

And it's easier to give up. Don't you think?

Rebecca Solnit (42:41):

Yeah. So what you're really doing is you're giving up on behalf of people. You're saying, let those kids starve. Let, let those, let that ice melt, let those storms destroy the crops of those people in Central America. We, who are relatively comfortable, safe, affluent, and therefore powerful, I think have no moral right to give up. And we're giving up to let other people die first. Other people lose first, other species lose first. I don't think it's ethical. And I think the facts say there's a lot worth fighting for now. And fighting for it is a really good way to live.

Ariana Brocious (43:18):

So that strikes me as lacking empathy, lacking understanding.

Rebecca Solnit (43:22):

You, you mean the giving up.

Ariana Brocious (43:24):

That, that not comprehending the impact that your

Rebecca Solnit (43:27):

Yeah.

Ariana Brocious (43:27):

Inaction might have. So how do we build more empathy, more understanding?

Rebecca Solnit (43:31):

One thing that I found fascinating when I finally understood what most human rights and environmental movements do, first of all, is try and make the invisible visible. And so much climate work is just making

visible what's happening with oceans, what's happening with the Global South, what's happening with rainforests, what's happening, um, with impacted communities, but also making visible the movement, the solutions and the victories. And I think the left historically is really bad at celebrating victories. And the climate movement has a hell of a lot more we need to do. But we've accomplished a lot.

Ariana Brocious ([44:09](#)):

So how do we celebrate victories more? Because I think this comes back to the idea that environmental stories, you know, one editor told me once they ooze right? They just kind of like incremental things. They go bad slowly, they get better, slowly, there's not as much drama.

Rebecca Solnit ([44:22](#)):

Yeah.

Ariana Brocious ([44:22](#)):

But there've been a lot of environmental or climate victories that are preventing harm.

Rebecca Solnit ([44:27](#)):

Yes.

Ariana Brocious ([44:28](#)):

Rather than achieving a new solar plant or something. So how do we celebrate those?

Rebecca Solnit ([44:33](#)):

There's both.

([44:34](#)):

And, you know, well I have a several page section I compiled of climate victories going back to the early seventies and people, it feels like victories get forgotten overnight. A lot of victories look like nothing. The forest wasn't cut down. The toxic incinerator wasn't built in the inner city neighborhood. So the kids didn't get asthma. Uh, um, the coal plants, the liquid natural gas export facility wasn't built, et cetera. So a lot of times if you're looking for victory, it literally looks like nothing. It's the thing that didn't happen. But a lot has happened and is happening. Bill McKibben pointed out the other day, we're implementing solar energy so fast it's the equivalent of a, a large nuclear power plant opening every day. One of the great victories that climate people often hark back to is the Montreal Treaty to stop the ozone depleting gases, which was actually really successful.

([45:30](#)):

And then just in the last few years, there was a major milestone in the recovery of the ozone layer because we had this treaty and treaties sometimes work. A lot of it is on the media, which is part of my job and yours. But all of us are storytellers. One of the things that happens at a lot of climate events is people ask, what can I do? But a lot of what you can do is be informed on climate, including the victories and the possibilities, and bring them up in conversation and be equipped to counter defeatism, despair. Because power also lies in the grassroots. It lies in good ideas, it lies in civil society. It doesn't just lie in elites, which is the story we're often told to make us give up.

Ariana Brocious ([46:14](#)):

So I wanna turn, this is actually a great segue. Um, I'd like to ask you to read something, an excerpt from an essay you wrote following the 2016 presidential election called How to Survive a Disaster. And, uh, I'll ask you to read this and then we'll talk about it a little.

Rebecca Solnit ([46:30](#)):

The ideal societies we hear of are mostly far away or long ago, or both. Situated in some primordial society before the fall or a spiritual kingdom in a remote Himalayan fastness. The implication is that we here and now are far from capable of living such ideals. But what if paradise flashed up among us from time to time, at the worst of times? What if we glimpsed it in the jaws of hell? These flashes give us as a long ago and far away do not, a glimpse of who else we ourselves may be and what else our society could become. The door to this era's potential paradises is in hell.

Ariana Brocious ([47:11](#)):

I love that last line and this idea of finding paradise, of finding solace and comfort and community and togetherness in the worst of times. And, uh, you write in that essay and I think in some other places about, um, responses to disasters like Hurricane Katrina.

Rebecca Solnit ([47:29](#)):

Yeah.

Ariana Brocious ([47:29](#)):

So how did you come to this idea that these times that can seem like the most dire can actually be, um, really powerful and uplifting and, and community building.

Rebecca Solnit ([47:41](#)):

San Francisco earthquakes taught me that. First I lived through the 89 earthquake, as I'm sure a lot of you did, whose 34th anniversary was just a few days ago. And I was amazed to find that like all the things I'd been fretting about, simmering over, were just completely erased. Like I was mad at somebody who was behaving badly. I never thought about him again. And, um, and I just saw people, you know, people all over the city came out and directed traffic because there was a complete blackout. People just figured out what needed to be done and did it. In North Beach for example, the power was out for three days. So restaurants, rather than let their food spoil, like set out barbecues and started feeding the neighbors. People tried to rescue the victims of the freeway collapses and things like that.

([48:29](#)):

And actually there was a group, a radical group called, um, Seeds of Peace that had fed the great anti-nuclear peace marches, set up community kitchens and fed the first responders who were working at the freeways. The fire department putting out the fires in the marina was only able to do that because huge numbers of volunteers showed up to help them run those hoses from the ocean to get some water, et cetera. The first responders in any disaster are your neighbors. And what happens is then by the time the news cameras get there, the professionals have often also gotten there. You'll get these exciting search and rescue teams, who are wonderful, but if you've been pulled outta the rubble that first day, it's probably the neighbors. People are resilient, generous, empathic, creative, courageous.

Ariana Brocious ([49:18](#)):

But this, this idea that people really come together and find like a truer sense of being in these situations, I think is one that is very hope filling. When you think about what future, most likely, uh, you know, even

if we do accomplish what we're hoping in terms of keeping climate impacts lesser, we are still gonna have them. We're gonna continue to have them and we're gonna have to find that resilience.

Rebecca Solnit ([49:38](#)):

In order to do what the climate requires of us. There's a lot of very practical, wonky stuff and very physical stuff. We need to electrify everything. We need to change how this, what the world runs on. But I also think that we need to change our imaginations, our values, our relationships. What's encouraging about how people respond to disasters, you see this deeper sense of who we are and what we really want, who we could be. And I feel like we have to escape from consumerism. We have to escape from the kind of loneliness, in isolation that Silicon Valley and a lot of other structures in our society have helped create. We have to feel that we can have an age of abundance, but abundance will be in confidence in the future, in the society we live in, confidence in our institutions and each other, a sense of belonging, a quality of life that will lie in our relationships to other human beings, other species, the natural world. And so I feel like that what disaster shows is that this is who we can be. It kind of shows a way forward, but we need to change the stories we tell about what a good life, a good society wellbeing look like as well.

Dr. Leah Stokes ([50:52](#)):

A Matter of Degrees is co-hosted by me, Dr. Leah Stokes.

Dr. Katharine Wilkinson ([50:56](#)):

and me, Dr. Katharine Wilkinson.

Dr. Leah Stokes ([50:58](#)):

We are a production made in partnership with FRQNCY Media, the 2035 Initiative at UC Santa Barbara, and the All We Can Save Project.

Dr. Katharine Wilkinson ([51:07](#)):

Thanks to our funders and supporters who make this show possible, including the 11th hour project. Special thanks to Fossil Free Media and the Make Polluters Pay campaign, which is working to hold big oil accountable for the damage they're doing to our climate and our communities. Find out more at makepolluterspay.net.

Dr. Leah Stokes ([51:25](#)):

And if you're digging the show, please hop on Apple Podcasts or Spotify and give us a five star rating. Or leave us a review.

Dr. Katharine Wilkinson ([51:33](#)):

Script writing, fact checking, communication and production support are by Lucas Boyd, Quinn Lewis, Christin Palmstrom, Anusha Singh, and Eleanor Thomas.

Dr. Leah Stokes ([51:41](#)):

At FRQNCY Media, Michelle Khouri is our executive producer. Lizzie Stewart is our producer and Claire Bidigare-Curtis is our editor and sound designer.

Dr. Katharine Wilkinson ([51:52](#)):

This transcript was exported on Jan 10, 2025 - view latest version [here](#).

Rose Wong designed our show art. Sean Marquand composed our theme song and additional music came from Blue Dot Sessions.

Dr. Leah Stokes ([51:59](#)):

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Dr. Katharine Wilkinson ([52:09](#)):

And stay tuned for more stories for the climate curious.