

Individual Matter

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Greg Dalton: Welcome to Climate One, a conversation about energy, economy and environment. To understand any of them, you have to understand them all. I'm Greg Dalton.

People concerned about climate disruption are changing their personal habits, switching to fuel-efficient cars, modifying their diet, becoming carbon-smart shoppers. But do individual actions having any meaningful impact on the global systems that drive severe weather? Some argue that buying a Prius or other well-intentioned actions may actually be counterproductive and result in a net increase in one's personal carbon footprint. Over the next hour, we'll discuss the role of individual habits in the war on carbon with our audience here at the Commonwealth Club in San Francisco.

We're pleased to have with us three perspectives on the importance of people as consumers and also a agents of change inside corporations and government. Glen Low is the principal with Blu Skye, where he's a sustainability consultant to Wal-Mart and other corporations. Chris Jones is co-chair of the Behavior, Energy and Climate Change Conference and a researcher with the Energy and Resources Group at UC Berkeley. And Gernot Wagner is author of *But Will the Planet Notice?: How Smart Economics Can Save the World*. He's also a PhD economist with the Environmental Defense Fund in New York. Please welcome them to Climate One.

[Applause]

Gentlemen, thank you for coming. Let's talk first about plastic bags, because plastic bags are such an icon for so many things environmental and economics.

And Gernot, you start your book in -- you talk about paper and plastic, and you say that plastic bags are shorthand for cleanliness and progress. So let's -- I'd like to get all of us to talk about plastic bags and the approach to tackle that problem through shaming name, through bans and also through pricing. So, Gernot?

Gernot Wagner: Well, plastic bags is sort of one of these iconic environmental issue. We've been banging our heads against the wall forever trying to get rid of them. And nothing really seemed to work, right? Whole Foods keeps getting us 10 cents to bring our canvas bag, and yes, I bring my canvas bag. But then I walk into the pharmacy and sometimes, mea culpa, choose the plastic bag or take the plastic bag.

Now, what did work? What has worked? 2001, Ireland, the country, passed a 15-Euro cent Plastax and plastic bag use decreased 90 percent. Nine-zero. A billion bags a year -- within a year.

Washington, 2010, a couple years ago, three years ago by now. Passed the five-cent disposable back tax, paper and plastic. And disposable bag use decreased by 80 percent within a year, is this tiny, tiny incentives that frankly you don't notice at \$100 weekly grocery purchase, 10 cents -- you don't notice. And still, they make a huge difference. And so the naming and shaming business, the usuals that are quote-unquote "old school" environmentalist approach simply didn't work until we pass this kind of policy -- the tiny, tiny fees that are making a huge difference.

Greg Dalton: Chris Jones, you're nodding your head. You think that's right in terms of the prices

or the really important drivers in shaping personal behavioral change?

Christopher Jones: Well, you know, what I think what's important about this example really wasn't the price as Gernot mentioned. It was really just the signal. Just the idea that this is the new norm. And even that very, very tiny price signal was enough to make that shift. So I think that was a very smart and very effective policy to do this, you know, countrywide. But we also see this, you know, at my own local supermarket, in the Davis Food Co-op, you know, that they're able to institute the same policy, and it just completely changed the way that people think about this. This is now what is expected behavior. So, it's not the price. It's just the shift in what is expected behavior that's important.

But that shift in expected behavior he mentions, Whole Foods before, paper and plastic, you know, you look -- feel like you're a sinner if you're walking out of Whole Foods or any other place where the plastic bag -- that didn't do it. The price mattered, right? And when people now in San Francisco say "Would you like to buy a plastic -- a bag?" "Oh, no. I don't wanna buy a bag, no." Right? So -- but it's the default option. That's really not important. This is one thing that we have learned, is it just makes that what is expected of everybody. People are willing in many cases to even pay taxes so long as other people -- everybody does it. Or to go a little bit extra on this issue for example. As long as everybody does it. So, it was effective because of that reason, I think.

Greg Dalton: And Glen Low, you've done research in consumer product goods and now the price sensitivity that consumers have and what they're willing to pay. So tell us, you know -- apply that to plastic bags.

Glen Low: Yeah, it's actually quite interesting because behavior change is a tricky business, right? And that's actually built on something that Chris was just mentioning which is if you think about behavior change, if you think about the habits that we have, these default options are actually quite powerful.

Ideally, most people who study this emerging science of habits, they say about 45% of what we do every day is embedded habits. There's no conscious decision-making. And so, in the corporate world, it's all about creating just enough new behavior, new incentive disruption and critical thinking patterns, to have someone think again. It may not actually be material, 15 cents or 10 cents may not be material, but it's enough of a break in the current habits, the current practices that you deploy that it actually creates a new behavior.

And so, corporations these days are looking at places where they can actually find points of disruption in a typical behavior. And so it's true for plastic bags -- it's very true actually for a number of corporations or targeting -- another very disruptive moment is when parents have kids. And so the ability --

Greg Dalton: That's definitely disruptive.

Glen Low: Yes. Yes, very disruptive. And so, there's a very great article in the New York Times that talked about Target and its practice of what they call the "pregnancy prediction algorithm." And they were trying to get families -- mothers, in particular, or mothers to be, who are in their second trimester. Because if you got them right at the right trimester, you can disrupt all their habits and have them shop everything at Target.

Greg Dalton: And -- okay, I just want to think about that. But -- okay --

Glen Low: Yes. Yes.

Greg Dalton: And does that mean are they willing to then buy cleaner and greener products because they're thinking about a child they're bringing into the world? Is that sort of -- to connect what we're talking about.

Glen Low: Yeah. Yeah.

Greg Dalton: And are they willing to pay more for that?

Glen Low: Yes -- well, let's be very candid. The incentive of Target is to drive shopping basket, right? Average shopping size. But absolutely, if you look at moms, moms to be, they carry with this -- aura emanating out from the body. So what they put in the body, priority one. What they put on their body, priority two. What they put in their family, in their home, priority three. And then you extend concentric circles out to community -- at larger.

That's what they care about. And so if you can get them in just the spot where you have this heightened sensitivity of the kinds of products you put on your baby for example, it is an inflection point of behavior. And it's disruptive.

Greg Dalton: And Gernot, is that meaningful in any way? Because you're here kind of representing the view that policies, what matters -- individual action doesn't really have an impact on -- we're talking about ultimately carbon and climate disruption. So if an expectant mom buys something that's easier on her health and easier on the environment, doesn't that create a market? Doesn't that create some market signals, that that's a good thing to do and that might have some impact?

Gernot Wagner: Sure. Right. I have a 23 months old at home, so yes, 23 months ago, our life changed quite a bit, right? And we do buy certain products not that we wouldn't have bought before -- diapers being an obvious example, but obviously sort of -- and other things where you now choose the organic version where you wouldn't have chosen the organic one before. But I think the main point, building on Glen's point is, Target, Wal-Mart, American Airlines -- they're incredibly small at getting us to frankly buy more stuff because they use these behavioral nudges to get us to move into the direction that they want us to go.

The trick is to use these exact kind of behavioral nudges, pricing mechanisms, incentives, on the policy level to move everyone in the right direction. So -- just quick example this morning, and so I came in from New York this morning, right? American Airlines gives you the option to offset your emissions, right? First, you pay for your ticket, then make sure that happens. And then they give you the option to spend 20 bucks extra to offset your emissions, right? And they don't do that to make you feel bad about flying. They wanna make you feel good about flying and presumably do more of it.

Now, the trick is to use these exact same type of nudges, incentive mechanisms, behavioral options, default mechanisms to use at the policy level to then for example, change overall flying behavior. And for example, make flights -- make everyone who buys a plane ticket pay for the full pollution cost that that flight would have cost.

Greg Dalton: So let's talk about the impact of offsets. Offset is a whole world unto itself, but just the mere fact that you could address your conscience and feel okay -- thank you for coming from New York today, by the way -- without any guilt. But does that offset mean that, "well, I can fly anytime and I don't have to worry about it because I'm addressing the carbon problem with my offsets." Therefore, we're free to go.

Gernot Wagner: Well, up to a point. So I -- well, I brought my own water bottle just to make a

point, I guess, even though there's one here already, but -- and so I tried to do all the right -- I don't have a driver's license. I mean that's going to extremes to a point. I've never driven in my life.

Well, I fly quite a bit. Now, how does this balance? Well, I'd like to think that I -- flying -- in my case, for business, for like the environmental cause is a good thing overall, especially if I offset my emissions, but at the end of the day, I -- yeah, right? I fly more because I've offsets available that make me feel good about flying, right? Why wouldn't anyone go in an eco-vacation to Costa Rica?

Well, yes, because they recycle their houses there, but -- the only way you can really justify to yourself is because you spend the 20 bucks extra to offset your emissions.

Greg Dalton: Glen Low, there's something called the single action bias, where people take an action, buy a Prius and then somehow think they have a license to do other sorts of things. So if you eat your vegetables, you can have that nice, you know, ice cream sundae, right?

Glen Low: I do that, yes. Yeah, it's one of the tricks of behavior change because when human beings processed what they want to go do, the actions they want to take --

There's an exposure to a risk like climate change, and they want to do something about it. There is an action bias. But the important reality is it's often a single action. It may not even be sufficient. It might even be insignificant. But there seems to be wired in our heads an ability to rationalize that "I've done just enough" -- and so here's a simple example. There's an experiment done a couple years ago, a psychology experiment where they had two groups -- one group who bought some green product online, and then another group who just looked at a green product but didn't actually buy.

And then they told this -- the people in the experiment of, "Well, this is unrelated but now we're gonna have you play this game where it's all about sharing. It's all about money." And actually, this is the unbelievable thing, that people who bought the green product shared less. The people who didn't buy the green product were happy to share. And so you get this single action bias because frankly, I've done enough of the planet, I'm actually now gonna indulge.

Gernot Wagner: Stop global warming for the day, right?

Glen Low: Exactly, it's done.

Greg Dalton: Chris Jones?

Christopher Jones: Well, you know, the ways single action bias works we think is that through cognitive dissonance that what's happening is that you have a conception about yourself and your actions are not in line with your self-concept, and so that creates this cognitive dissonance. So what you do, you wanna do the quickest thing you can to alleviate that problem, say, that you're kind of a good person to move onto the next thing. Well, you know, that does happen to some extent but it only can see so far. It depends on how much dissonance you've really created and if you're, you know, aware of the issue at all, just, you know, keep taking your grocery bag to the stores isn't gonna get you very far. So there's a counter-theory that is, the foot in the door technique.

And this has been actually shown empirically on hundreds of studies. And this is how you're counteracting single action bias and the way this works is that once you have taken one action, something really almost magical happens. It changes the way that you think about yourself and your own identity. Whereas before, you are a person who didn't care about energy efficiency to now, "I do care about energy efficiency because I put in this compact light bulb." And you're much more likely to take an additional action in the future. And there's has been many really very compelling cases of --

Greg Dalton: Talk about the lawn sign case.

Christopher Jones: This is one of my favorite examples and Robert Cialdini and many other people use this one. So this goes back to 1966, and in fact we've known about the foot in the door for decades even before that. And what some clever researchers at Stanford did is they went to two different neighborhoods --

Greg Dalton: Do sort of Cal guys say that? That was pretty -- okay.

Christopher Jones: Yeah, they're very -- we collaborate sometimes.

Greg Dalton: Good.

Christopher Jones: We give them a break on this one. So they went to these two different neighborhoods where traffic was a problem, and they knew that people cared about traffic safety in those neighborhoods. And what they did was they asked one, in the control, would you be willing to put this huge billboard on your front lawn asking people to drive safely. It was this ugly thing. It covered up their entire house basically. You couldn't see it. It was like painted, looks like by schoolchildren, you know, on this billboard. Would you be willing to put this on your front lawn?

Part of the story actually is that 17 percent of the people did agree to put this horrible thing on their front lawn, surprisingly, but that's not the main story here. So what did they do in the treatment group? They went to another neighborhood, and before they ask about the billboard they said, "Would you be willing to put this three-inch-square sticker in your car window that said would you be willing -- 'please drive safely'?"

Of course, everybody did it, you know. And then we went back to that same group a month later and they said, "Oh, thank you very much for your -- you obviously cared about this issue. Would you be willing to put this billboard in your front lawn that said 'please drive safely'?" Seventy-six percent of the people agreed to do this really pretty outrageous seemingly action. Just because it -- it had not only identified with themselves with this issue but they'd also publicly identified with this issue.

Greg Dalton: And they saw their peer group, their neighbors do it too, so there's that social validation of "I'm not gonna be the only freak with --" yeah, okay.

Christopher Jones: I ended up putting this in my front lawn just a couple of weeks ago because first, they asked me to sign a petition. And they said, "Oh, by the way, would you be willing to put this on your front lawn and --" well, it works. I mean we use this all the time. To get your foot in the door is one thing, and then a bigger thing later.

Greg Dalton: Okay. So someone changes their light bulbs, then maybe they're gonna change their diet, buy a plug-in car, put solar panels, that sort -- is that working? Do we know that that's working?

Christopher Jones: Well, look. I think if you look at people who have gone from small actions to large actions or from individual action to collective action, it's always gonna start with something small. We don't know the extent to which that small action will lead to larger actions.

Greg Dalton: And isn't there a vigorous debate about whether an individual action or -- is a step to further civic engagement if changing your light bulbs to CFLs or LEDs leads to voting for green politicians or leads to writing letters to your members of Congress or leads to other types of action. Do we know that? I mean there seems to be quite a debate about this on ramp or whether it's a dead end.

Christopher Jones: You know, I'd love to see the good study that shows under what conditions that we can make that happen more frequently.

You know, it -- there's many factors that go into this equation. The way I think about it though is for those of us who are engaged in collective action, would we have been able to be engaged in collective action if we haven't taken those first steps?

Greg Dalton: And Gernot, let's ask you. You know, the -- talk about policy, but doesn't policy require people who have taken these steps to be supported, for politicians to do something like Plastax in Ireland or something else. Doesn't -- sort of in some way, do -- the more Priuses on the road or the more people are concerned about their energy, doesn't that make it safer for politicians to do energy-smart policy?

Gernot Wagner: Absolutely. Well, California is a terrific example of this. California has led the nation forever, since the 70s at least, when it comes to environmental behavior and -- well, by now, California is the one state with the most comprehensive cap-and-trade system in the country.

So clearly, there are steps that lead to policy action. And frankly, if me being vegetarian and me recycling and me offsetting my emissions, at least to that, right, sign me up absolutely. Now, what I'm definitely afraid of is that there is just enough substitutability -- not to use too technical a term here -- between individual action and collective action, essentially the single action bias that Glen had identified, that will prevent us from taking these steps quite in the -- sort of -- at the rate that they would need in order to get to collective action.

So, just one quick example of this, maybe. Biking in New York City, right? Mayor Bloomberg put in 300 miles of bike paths in the last five or six years of his tenure.

Three hundred miles. You can go up and down Fifth Avenue a couple of times to get to three hundred miles. Now, it wasn't that there was sort of suddenly there's collective uproar and people demanded bike paths. It's not because it benefits him, right? He needs another helipad. So, it would certainly sort of this benevolent social plan out in a sense, right? Where under one hand ban smoking and the other is banning large soda drinks, and is putting in 300 miles of bike paths to lead essentially to presumably a model that's much closer to Copenhagen than Los Angeles. Well then, New York, how is it right now? Where people actually can safely bike to work.

I used to bike to work till 23 months ago. When the decision was between my taking a big life insurance or not bike into work, when my kid was a baby. So now, with the bike paths, it's actually once again safe and, not to use too an economist term -- cheap to buy, right? In every sense of the word. It is cheaper to bike because I need a lesser life insurance to be able to make it to work safely any given day. This is the kind of policy change where I would say, clearly, right? It's a race between individual action demanding -- sort of bottom up demand for policy, and then a benevolent social planner coming in and instituting a policy. But the end result has to be the policy.

And if there's any kind of substitution between the two, I'd much rather go for the policy action than for getting yet another New Yorker to bike to work.

Greg Dalton: If you're just joining us, Gernot Wagner is author of *But Will the Planet Notice?: How Economics Can Save the World*.

Other guests today at Climate One is Chris Jones from UC Berkeley, and Glen Low, a principal at Blu Skye. I'm Greg Dalton.

Glen Low, let's get you to talk about individuals inside corporations, because an individual who

somehow starts on this path we've been talking about, starting with light bulbs or whatever it is, they could have an impact in their personal life, but if they're an influential person in a corporation, they control the rules of that organization, they might control purchasing, they have a lot more leverage and power than just a regular, old person. So talk about the leverage that corporate people can have.

Greg Low: Yeah. Let me give you a very tangible example. Who would you rather affect and try and induce behavior change, whether single action or multiple action? Would you rather affect the 200 million people who shop at Wal-Mart every week or would you rather affect the 25 people who are SVP, EVP level people at Wal-Mart who buy all the goods that are on the store shelves?

Greg Dalton: So the customers or the corporate officers?

Glen Low: Yes. Yes.

Greg Dalton: Okay. Okay.

Glen Low: Who would you try and induce behavior change? And that's the whole philosophy behind a lot of emerging efforts both in the consulting sector but also in the NGO and nonprofit and foundation sector, where they're really focused on a handful of key decision-makers. Because for every system that's out there, whether it's an extended value chain or whether it's an individual corporation, there are some decisions that matter more than others, right? Check our own experience. Our decision to where we go to school, where we buy our home, where -- there are more material decisions than others. And if you can isolate those decisions and target the corporations who can have undue influence, that is where you can get systemic change with a handful of people.

Greg Dalton: So then there's -- say there's this group of 25 people. Who's gonna be the first one who is to sort of say, well in Wal-Mart's case, it came from the CEO down, right?

But Chris Jones, to say we have a small group of people, how is the norm gonna be established in that group where it's gonna be safe or cool to say, "No, wait. We're gonna change this process. We're not gonna buy products from that company," or "We're not gonna use this dangerous material," that sort of thing.

Christopher Jones: Well, I think, you know, you've addressed, you know, who is the actor. You know, if you are EDF or Blu Skye consulting, you know, go and address Wal-Mart and, you know, public policy. But if you are a group of individuals, you may not feel like you have much influence over decisions of governments.

Greg Dalton: Sure.

Christopher Jones: So it's really important to work within your own spheres of influence. And that might be your neighbors or your family, your friends, your colleagues at work -- maybe you are in a position of power at work. So, fantastic. Work within your community. Work as a voter. It's very important to engage in -- where you feel like you make the strongest impact.

And that's what people are doing. And you know -- so the idea that, you know, our individual action doesn't matter or doesn't, you know -- have an impact, you know, I have a lot to say on that. I believe that it absolutely does, you know. There are millions of people who are already buying hybrid vehicles and putting solar on their roof and picking -- you know, half of Californians have been shown to not only care about this issue, but are taking action well, above and beyond just what, you know, would be smart economics to do. So, we are making really important contributions

collectively with everybody working in where they feel like they have the most influence.

Greg Dalton: And we can do that in our own personal life but your -- if you're a purchasing executive at Wal-Mart, Glen Low, you're not gonna be able to do anything and solve the economic, that's for sure. So how does that start in that group of 25 influential people? How does -- give us a little peek inside in terms of how they move the bar forward and how new norms get established so they can actually move the bar, you know.

Glen Low: Yeah. The simplest answer is to piggyback on existing ones. And so in this example with Wal-Mart, but really it's true for any corporation. There are unique business models that are inherent. There's a unique culture that's inherent. And in Wal-Mart it was all about everyday low cost. It would save money, so people can live better. And ultimately if you actually take cost out of the system -- whether it's packaging for example, that actually says both Wal-Mart as -- and it saves consumers. And so if you can lower the price on a particular good, that's actually good for everyone involved.

And so if you can tap into the -- what some people would call the normative behavior or the culture that's consistent with that organization, you can actually have change happen pretty quickly. But frankly, it only fits for certain corporations. There are some corporations out there that the -- the behavior change is necessary to produce -- the kind of scale impacts we need are very, very difficult and so I'll just name an example.

Seven of the largest ten corporations on the planet are in oil and gas. And you could argue that their business model is uniquely unsuited to sustainability. And so -- now, it's more complicated that of course, but there is an art to try and convince executives whose short-termism -- their approach to "do my stakeholders care? Do my shareholders care?" -- no, usually not because it's not in the balance sheet or financial statements. "Do my customers care?" Well, a lot of times, customers don't care. At least they're not shopping with their dollars in their feet as well as we would like.

They will also ask, "Do my employees care?" And sometimes -- again, the answer is no. And so what you have are people who are corporate citizens who have fiduciary responsibility to all these stakeholders. And unfortunately, sometimes it doesn't fit the business model.

And so that's the art. It's finding the right corporations that can have undue influence, but it fits with their business model as well.

Greg Dalton: Can I add into that in terms of corporations having that kind of impact or the limitations as an economist? I mean we're just stuck by the economics. So if something is not economic, it's not gonna happen no matter how much we can talk about cultural norms or leadership -- it's not gonna happen.

Gernot Wagner: Exactly. I mean Wal-Mart is a terrific example. So EDF has an office in Bentonville, Arkansas. There's no reason to be in Bentonville other than it's the headquarter of Wal-Mart. And that's sort of the example of the example where Wal-Mart, as a corporation, selling more stuff to more people than anyone else in the planet -- has enormous influence.

So concentrated laundry detergent is a good example of this. And so the individual laundry detergent manufacturers have no incentive to concentrated laundry detergent because essentially, the more concentrated, the less shelf space you'll have, the less attention you'll get, and the less laundry detergent you'll sell. So Procter & Gamble, Unilever -- I think the individual sellers have no incentive to sell the concentrated detergent. Well, Wal-Mart can go ahead and say, "We will only sell concentrated laundry detergent."

So, Procter & Gamble, Unilever, everyone, get in line and sell the concentrated stuff. It's better for the planet, it's better for consumers, it's better for us as Wal-Mart -- and by the way, it's better for you as long as everyone else does it, too. And of course, when Wal-Mart says to Procter & Gamble, "only sell concentrated laundry detergent," there's no reason for Procter & Gamble not to be selling the non-concentrated stuff. And the other handful of stores, if the biggest consumer, the biggest retailer only sells one type of your product. So Wal-Mart in this case, took the step, took the initiative and now all of us everywhere are buying concentrated laundry detergent.

Now, there are counter examples to this too, of course, where even Wal-Mart, like Glen was saying, would simply doesn't have the influence, where it has to be a policy, where it has to be a step above. And of course, an oil company is a pretty good example. Airlines is another one. Or the entire business model would have to be turned upside down to take the steps to the necessary there'd be no that are necessary to get to this low-carbon, high-efficiency path that we would all like to get onto.

Greg Dalton: Let's talk about advertising campaigns, of whether -- we've talked a little bit about how corporations can shape behavior. They've been masterful at convincing us that we need, as some people say, "to buy all sorts of things that we don't need to impress people that we don't like." So, could that be turned around to sort of shape positive behavior in a way that, you know, having a low energy usage or low carbon footprint would be desirable and sexy and cool in a way that Jimmy Carter, couldn't. So -- Gernot?

Gernot Wagner: Let me take my pet peeve here. I -- 14 months ago by now, the day after Thanksgiving. Patagonia came out with an ad that says, "Don't buy this jacket." I would say this was the most cynical move of anyone that particular Friday. So again, right, we need all of the above. So we need consumer groups who say, "We don't buy anything on Black Friday." Activism from the bottom up.

And we need policy -- we need everything. But this particular example, right, of sort of corporate citizenship, and of course it was hailed as corporate citizenship. Well, I actually walked into a Patagonia store in New York in Columbus Avenue the next day, they've sold out of that particular jacket. [laughter]

And of course, I don't want them to advertise themselves out of business, by the way. They're a great company. They do fantastic things, right? Now, of course I'm the target audience, right? I know where Patagonia is. The region. I actually -- my wife has three of their jackets. Not just one -- three. It's a fantastic product. I like the stuff. They do great things. They plant trees everytime to help with pollution -- they do all the necessary things. I don't want them to advertise themselves out of business. And we shouldn't expect them to advertise themselves out of business. We do share the responsibility and basically it obligates them not to.

Greg Dalton: Well, they're private. So they can do whatever they heck they want.

Gernot Wagner: Fair enough, right? But still, it takes policy to make the change. We came to rely on Patagonia to basically to get us to buy less stuff.

Greg Dalton: Glen Low? And then we'll get to --

Glen Low: I would love to think that Madison Avenue can convince people to do that. I think there is a history if you look at cigarettes, there's a history of people being convinced by major corporations to do things that actually will kill you if you use the product properly, over time.

Greg Dalton: Two-thirds of Americans drink even though there's a label right there that says it increases the risk of cancer.

Glen Low: Yes, yes. And 160,000 people die every year in the U.S. from lung cancer -- a disease that was practically unheard of before Madison Avenue started marketing cigarettes to consumers.

But the tricky part here, Greg, is it's very hard. And so if you look at two recent examples, Clorox Green Works, they just had a recent campaign probably a month ago, where they effectively try to get greenies to be not the only people who buy the Green Works, which is the household cleaning, but to get the other 85 percent of people who don't buy it. And actually, the ad mocked, that 15 percent that do buy it. And it totally backfired on them.

Greg Dalton: The righteous eco-consumers --

Glen Low: Exactly. And the same thing could be said about Coca-Cola, right?

They have a fundamental issue -- obesity -- that they're wrestling with, and they're arguably one of the best brand marketing companies in the world if you look at the Coca-Cola brand. But their coming together campaign, which again is just recent, it's a two-minute video how they're part of the solution for obesity in the U.S. But again, look at the backlash. Look at the YouTube video that mocks the coming together commercial where it really says, well, sugar-sweetened drinks in the U.S. is the number one cause of obesity. You have that kind of backlash. And so it's not so easy to predict. Can Madison Avenue get it right every time? Unfortunately not. And it's --

Greg Dalton: Well, they got a pretty darn good batting average. Chris Jones?

Christopher Jones: You know, there's some wonderful examples of social marketing -- marketing of green or of pro-environmental or pro-health products. So my favorite ones, I discovered when I was 19 driving through Texas, and I saw these billboards all over the place that said, "Don't mess with Texas." Here it was with my California car driving through Texas and I thought, "Oh no, what is this?" you know. And it turned out this is one of the most successful social marketing campaigns ever where it was -- you probably know about litter. Right? Literally, don't mess with Texas. And they were essentially able to eliminate littering in Texas. It was 85 percent or something reduction from this campaign, which is actually run by government.

And so because it tapped into the identity of Texas in a really profound way. And I think we could do something very similar actually in Californians by tapping into our identity. Who are we? We are health-conscious. We're environmentally concerned. We are -- we write our bicycles. We care about the environment. We're smart. This is where our Californians are cool. This is who we are.

So make that part of our identity, and I think there's a lot that we really could do, you know, effectively with social marketing on this issue.

Greg Dalton: So, Gernot Wagner?

Gernot Wagner: I'm not worried about Californians. (laughter) Preferably Boulder, Brooklyn, Boston -- they figured it out, right? So there's certain communities where it's cool to drive a Prius or you sort of stick out if you don't. Or you pay extra to be able to drive a Prius, in order to seem like you fit in. Right now, there are also areas in this country where Toyota sells hybrid pick-up trucks without putting this -- the hybrid label on them. Because they're just fundamentally good vehicles, so people buy them. You just don't want to be seen driving around with something that says hybrid. And certainly not something that looks like a Prius.

Now, it's -- those are the consumers we need to convince. Those are the people we need to get. So they are sort of -- it can name study after study that sort of demonstrates how you can get people in Brooklyn to do certain things. Great. Well, they're not the people we're worried about.

Greg Dalton: But if that's done in a Berkeley kind of righteous, arrogant way, it's gonna backfire. Chris Jones?

Christopher Jones: Well, absolutely --

Greg Dalton: You're from Berkeley so you speak for Berkeley (laughter)

Christopher Jones: Yeah. Well, there's a great South Park episode on the Prius as any of us know. But you know, any product and any innovation always starts with the early adopters, and California is an early adopter on this issue. But it has to be, you know, absolutely moved beyond that. Most Americans though do care about climate change. Most Americans are concerned about this fundamentally moral issue that we have done more than our fair share of warning.

If everybody lived like the average American, we'd be at three or four degrees C right now -- seven, eight degrees Fahrenheit of warming. That is fundamentally unfair. It's fundamentally a moral issue. It's an issue that people care about.

And for those who -- that impacts us in a really kind of profound way you can speak to the environmental aspect. For many of the -- for people, that isn't something that's gonna impact them. You need economics and, you know, other forces.

Greg Dalton: Let's hear Glen and Gernot address whether ultimately, the moral dimension is where this needs to go to get people to really move. Glen Low --- I mean does --

Glen Low: Well, the unfortunate reality is -- well, one, I'm an optimist but let me put that aside for a second. The morally over -- when people decide what behavior to choose, the "I'm destroying the planet. It feels morally overpowering." Can you act in terms of that? And the issue even coming back to the full -- the beginning of the session where we talk about plastic bags, if you look at San Francisco chronicle a couple of days ago, the number one article was that plastic bags kill people.

Greg Dalton: Well, you should wash your canvas bags and I took one this morning.

Glen Low: Exactly.

Greg Dalton: "But I wash those things that are dirty."

Glen Low: And so, the moral argument is necessarily not sufficient. It kind of actually has to be easy. And I'll just volunteer --

Greg Dalton: So we're all for being moral when it's easy?

Greg Dalton: All right. Okay.

Glen Low: Yes.

Greg Dalton: Gernot Wagner?

Gernot Wagner: So -- I mean I can easily afford to go on this eco-vacation, check my BlackBerry at the door, and basically live off nature for a couple of weeks, right before I return to my nice, little

cushy office.

People who don't have this choice, right before them, that simply is not an option. So -- for example, I just spent a month in Thailand working, not on the beach, and -- a couple months ago. And basically, the -- and good example of this. Everyone uses CFLs, compact fluorescent light bulbs. Everybody.

Now, no one recycles. No one bikes. It's a polluted, disgusting mess, right? How do you put the two together? Well, it turns out the state-owned utility in Thailand faced very much the same decisions that utilities faced here in California in the 1970s, build yet another power plant or get people to use CFLs -- get everyone to use CFLs. And as a result, there were heavy subsidies, public information campaign, and Thais used -- as a result -- now use CFLs, even though incandescents would still be available in the stores.

It took Americans, Europeans -- it took bans on incandescents to get us to this stage. Was theirs essentially a public information campaign with a hefty dose of subsidies to basically push CFLs out to people. And not everybody uses them. This is sort of the example -- once again, as the economist I would say, Well, of course the incentives work." There's a reason why no one bikes because "it's expensive," quote-unquote, it's dangerous to do in Bangkok. You'll literally get killed doing it. And there's a reason why no one recycles, and there's also a reason why everybody uses CFLs. Now, putting the two and two together, once again leaves me with the conclusion that at the end of the day, it's the -- in this case, fairly irrational incentives that get me to do certain things that are good for the planet and then not take that as sort of the initial step and say, "Oh, now I'm using CFLs. Let me do all these other things as well but to basically do what's good for me on the CFL side, and to also do what's good for me on the driving side, or the flying side, or the not recycling side of things.

It's the incentives in the end that drives people's behavior.

Greg Dalton: Chris Jones?

Christopher Jones: Well, in part -- certainly if we -- policy has to be absolutely the thrust of, you know, national and even state level policy. Absolutely. But we know that people are willing to buy solar. People are willing to drive, you know, the hybrid cars. People are willing to do so much more, and when it comes down to the end of the day, we're not always necessarily buying what is best for our pocketbook. A lot of other decisions go into factors going toward "This is your making." But --

Greg Dalton: Are you saying solar and hybrids are un-economic?

Christopher Jones: Well, they have been. But people have been buying them anyway. And many other things -- I mean there are a lot of cheap things' efficiency that we don't do, and they aren't cheap, you know, so lots of factors go into our decision-making. I mean I absolutely agree with Gernot that, you know, we have to have much, much more aggressive policies and there has to be a thrust in what we do. But behavior is important, too. It needs to be part of what we do. And frankly, even the most aggressive policies that we've even conceived at this point are not gonna get us anywhere close to where we need to be. I mean we need much more aggressive policies and even we considered.

Gernot Wagner: Absolutely.

Greg Dalton: And Glen Low, corporations know that people make emotional decisions more than economic decisions, right? I mean I could buy solar -- it maybe un-economic but it feels cool, I get some kind of benefit from -- there's a lot of literature on this, right? So in terms of -emotion versus

rational decision-making and --

Glen Low: Yes. Yeah, in fact what the latest studies say is we are both rational beings as well as emotional beings. And the way our brain is wired, you kind of have to balance the two. There's a great book, "Switch," that talks -- it's from the Heath brothers, one who's a professor at Stanford, that really talks about how do you get coordinated long-term persistent action. And you have to tap into both. You have to have the economic rational, "this is in my best behavior as an economic human being." But it also has to resonate with our value systems.

So, coming back to the morality argument, morality in itself isn't enough, but if it does both, if it addresses your morality and your values as well as fits in the pocket book, there is persistence. And so with a lot of our work that we're doing with corporations, that's exactly where we go. We try and tap into this underlying belief, this value system of corporate executives and combine it with the business incentives of "this is actually good for your business." And that's how you create persistence.

Greg Dalton: And that's an interesting word because some people might buy local for awhile but then, the other stuff goes on sale whenever -- you might change your habits for awhile but then kind of think it's not having impact and revert to your old ways. Gernot Wagner?

Gernot Wagner: I would like nothing more than 50 years from now, as economist, completely unnecessary in this climate debate. So if you look at child labor, right? You don't have economists talking about benefits and costs of having 14-year-olds produce products for us. It's simply something we don't do. Slavery is another of course prominent example of this.

We did have economic arguments. We had economists with very crude benefit-cost methods way back when essentially argued that, well, there are benefits and there are costs. Let's see how we can do this least intrusively, to convince people to go for the policy change.

Well, if 50 years from now we're still having debates about the benefits and costs of \$20 versus \$30 per ton of CO₂, we've lost this battle. It has to be a moral issue eventually. The question is how do we get from here to there.

Greg Dalton: Gernot Wagner is author of *But Will the Planet Notice?* and an economist at the Environmental Defense Fund. Other guests today at Climate One are Chris Jones from UC Berkeley Energy and Resources Group, and Glen Low with Blu Skye Consulting. I'm Greg Dalton.

We're gonna put in audience microphone up here and invite your participation for a one-part comment or question. You can tell us your carbon reductions or your carbon sense right here and -- while that's going, I'm gonna ask each of you to tell us a little bit about your own footprint, what you do to reduce it. We've heard Gernot Wagner talk a little bit about his traveling. He hasn't told us yet that he lives in an apartment in New York without air-conditioning. I don't know if you've got an air-conditioner when the baby arrived. Maybe -- yeah? No?

Gernot Wagner: We didn't. No.

Greg Dalton: Wow. Okay. Let's talk about -- you just talked about your flying. What's else -- what's the next thing for you to do to reduce your own footprint?

Gernot Wagner: Well -- so here's the deal. The average American emits about 20 tons of CO₂. The average European emits about 10. I have dual citizenship so I get 30. (laughter) and that's pretty much where I am actually, right? So I'm vegetarian. I don't drive. We carry our 23 months old around everywhere, which I guess you can go to extremes with all of these. We don't have air-

conditioning. It is -- we try to do all the right things, right? And then you add it all up. And it just doesn't add up to enough.

A recent example involves the Catholic Church, right? It was the next Pope decreed. Every Catholic ought to decrease his or her carbon footprint to zero. Zero. Now that's even possible or desirable for that matter, but it's certainly not possible. But let's just say it happens and that billion Catholics follow their Pope's lead and decreased their carbon footprint to zero. It will basically register like Lehman Brothers taking a nosedive, if you have a great recession -- you have a dip in emissions, clearly the planet would notice, but the trend line is still pointing up and we still haven't solved this problem.

So, the biggest social movement in history -- religion -- the biggest church of the biggest social movement in history, the Catholic Church, gets all its billion members to do the right thing and go beyond and get to zero.

All vegetarian, none of them drive, none of them fly. And we still haven't done enough. It takes policy. It's not just individual action. It has to drive the kind of change that's necessary.

Greg Dalton: Not papal policy. Okay. Glen Low, let -- let's talk about what's the next thing for you to reduce your own footprint?

Glen Low: Yeah. Well, for the record, my water footprint is a quarter of the national average. My trash footprint is -- it's 3X recycling and compost than it is landfill. I fly constantly but I rationalize that because I'm flying out there to convince the world's most profitable executives that they should do more. And so I'd like to think the energy balance in my activities, my carbon footprint is actually positive, but that's where I'm focused. I spend my entire day doing it.

Greg Dalton: And what could you do that you aren't doing it? And this is meant to be, you know -- with all -- and I'll include myself, too. I'm not a carbon angel here, but --

Glen Low: Yeah.

Greg Dalton: What's the next thing you could do, you'd like to do?

Glen Low: Invest consistent with my values.

Greg Dalton: Good one.

Glen Low: So I -- I've moved a significant portion of my net worth, which isn't a lot, but is a little part of what I can do. So you're socially responsible investor to -- it's actually both with my dollars in terms of share and stock, in a way that I think is consistent, because ultimately unless the financial system acknowledges these externalities, which is just a fancy economic term for cost in society that aren't being borne by corporations -- unless it gets fixed, all these are patchworks.

And so until we shop smarter, until we invest smarter, the scale change won't actually happen.

Greg Dalton: Chris Jones?

Christopher Jones: Well, my wife and I are about less than -- a little less than half of similar households, and we do do carbon footprint analysis at my job.

And the part of that is high is definitely air travel. And so we rely on carbon offsets for that. So that's all about we can do on that one. But I think what I could do more -- one more thing I'd like to

say on this. I think it is important for all of us who work in this space to lead by example. I mean that is -- I don't think you can really speak from a position of trust if you don't do this in your life.

But really, it has to be with -- I think the next step for me is really influencing more, you know, my peers, my family, you know. If I could get my brother-in-law to take this seriously, I think maybe I'd be doing really well.

Greg Dalton: You've got a challenge. Okay. We'll have you back. As some of you know, I have solar and electric car. I also fly discretionary sometimes with my family. And I think similar to Glen, the next thing for me would be to invest in a way that's consistent with some of the purchasing things.

Gernot Wagner: Can I ask you one question on this, on investing?

Glen Low: Yeah. Absolutely.

Gernot Wagner: Now, he's the Warren Buffett model of the world, right? Make as much money as you can possibly do, and then give it all away. So wouldn't it be --

Greg Dalton: But the problem is the tide, the cycle of that.

Gernot Wagner: Absolutely. But -- so if we could make more money investing in the green stuff, right? And Al Gore is trying with his Generation Investment Management, and he's doing fairly well. So if we can do that, absolutely.

Now, what if the alternative was invest not in the dirtiest stuff you can find but in the most profitable stuff you can find and then give it all through EDF? (laughter)

Greg Dalton: Or Climate One? Yes.

Gernot Wagner: Or -- Climate One.

Greg Dalton: Okay. But --

Gernot Wagner: But the problem is cycle and trends. [simultaneous conversation]

Greg Dalton: The problem is time lag to do that, right? The market signals today versus the accumulation of wealth, and then distributing it and then having that to have impact. By that time, we've raised the temperature on the globe another couple degrees.

Let's get to our audience questions. So yes, welcome to Climate One.

Male Audience: Thank you. Now the bags cost me 10 cents at the store, I'm a lot more conscientious about bringing my own bag to the store.

I'm also aware that the best and only behavioral change I make is not enough. And so I'd like to ask the panel what other policy changes do you see needed.

Greg Dalton: Gernot, you're the policy advocate here. What's the --

Gernot Wagner: Can I ask you back? So you're not buying the -- this bag, or refusing to buy the bag, bringing your locally sourced organic cotton bag to the store. Does it lead you to do more on the policy front or does it lead you to do more in other areas or are you sort of saying, well, "stop global warming for today, let me move on and, you know, solve the AIDS crisis?"

Male Audience: I'm not aware regarding behavioral changes other than me bringing my bag to the store more conscientiously. I, you know, advocated for policy changes prior to this 10-cent charge and I don't see that changing.

Gernot Wagner: Okay, good. So you're sort of you're in the in-between, right? So you're between Chris and me basically. You do the right thing in one dimension and it doesn't lead you yet. After today, of course it will. But it doesn't lead you yet to call for the additional policy change. It doesn't really bite into any other actions either. So that's presumably not the sweet spot necessarily, right, but presumably at the very least it doesn't do anything in other areas where you now say, "Oh, I can fly more because I'm getting my bag."

Male Audience: Correct.

Christopher Jones: Can I ask another question? So you have your own cloth bag?

Male Audience: Yes.

Christopher Jones: Yeah, do you --

Male Audience: I just thought the cloth bag, it's -- at least a nylon bag. It fits in my pocket.

Christopher Jones: A cheaper bag --

Male Audience: It's a lot easier to carry.

Christopher Jones: And where do you -- where do you put it in your vehicle?

Male Audience: I do not have a vehicle. I'm like --

Christopher Jones: Ahh.

Male Audience: -- one of the panel members. I do not have a driver's license.

Christopher Jones: Wow. Okay then.

Gernot Wagner: But your wife must have the bigger impact, right?.

Male Audience: Yes.

Christopher Jones: One thing I love about these bags is that we leave them in our cars and we take them to our -- it's our constant reminder -- for most of us who actually have cars.

Not like, you know -- a good example you're setting here. It's a reminder to carry this on into other aspects of your life.

Greg Dalton: Good point

Christopher Jones: And it's the car. It's the number one in California, by the way. By far, it's the car that is the biggest thing to produce, as individuals.

Greg Dalton: More than diet.

Christopher Jones: Diet's important. It's -- I mean basically in the U.S., it's cars, coal and cows. Those are the three in that order. And we don't have coal very much in California, so it's basically

cars, and then cows are down here in food. And home energy is important, but cars by far are the biggest one here.

Greg Dalton: Let's have our next audience question in Climate One.

Male Audience: Okay. Well, I'd like to see more of an emphasis on sort of the systemic nature of this problem. I think this emphasis on self-action, the narcissistic approach is gonna lead to a dead end. Because this came in part -- let's say the United States got very wealthy off the fossil fuels.

Other countries would like to get wealthy to match our standard. Are -- even as wealthy as we are, we're very indebted. And if our economy slows down just a little bit, suddenly, environmental concern takes a backseat as we saw, you have the Copenhagen -- a big retreat from global -- maybe it's more important that we start screaming about the future? Species will go extinct. All the -- you know, you know all the consequences. Then, should I drive a Prius or should I ride my bike. It's a collective problem and we need a collective solution. Any comments?

Greg Dalton: Glen Low?

Glen Low: I completely agree with you. It's been well written that virtually all the world's most pressing problems require collective action, right? It's simply put as that. And if you look at individual accountability and collective action, you need both. It's an all of the above strategy, absolutely. And there's a number of really good signature examples where government, consumers, or individuals like ourselves -- corporations are actually working together to actually produce systemic change.

And I could go into examples, I don't know if we have time, but the ability to have coordinated action, simultaneous action around just the right people, is key. It's not everyone, it's not all seven billion, one day nine billion acting in concert. It's actually a few thousand. And then if you pinpoint the problem, pinpoint the solution and get the right people to perform, you can actually change it.

Greg Dalton: So there's a few people who really have their hands on the ship here. If you get to them, that they could really turn the ship around. Is that what you're saying? You get to them so that they could pull the levers of power that they hold?

Glen Low: Yes. Absolutely. Let me give a tangible example. Seafood. Seafood is a huge issue because -- well, unfortunately there's not enough seafood to go around. It's a very tangible problem because we all eat seafood -- I presume most of us. If you got the handful, it's probably in the thousands. I've actually never counted, but you got the thousands of people who buy the most seafood in the world. If you got the NGOs who are focused on sustainable seafood in the room at the same time, if you got the right government posse, whether it's catch shares or other types of programs, you can actually create systemic change because as economists say, it's a commons problem. It's a tragedy of the commons. But what that requires though is coordinated action by individuals who shop smarter, don't buy red list food, use your Monterey Bay Seawatch card. You need merchants who are in the major corporations, whether they're retail or grocery, the restaurants or like your local Safeway buying the right fish, so don't buy Chilean sea bass and put on the shelf. And you need government action because the -- there's a true economic cost to all of the overfishing. It's been proven that the economy would be better off by the billions if we all took coordinated action.

Greg Dalton: And so concentrated -- the industries provide opportunities?

Glen Low: Yes.

Greg Dalton: Let's have our next audience question, welcome to Climate One.

Male Audience: Interesting you would discuss that. That pertains to what I'm gonna tell you, like the food industry has done a marvelous job reminding us on how many calories and what the contents are. What if we took that a step further and put labels on the carbon footprint that we're creating with the products that we buy?

Greg Dalton: Glen Low, you've been working on that?

Glen Low: Yeah. For about three years. It's a mixed bag, unfortunately, like Tesco, one of the largest -- one of the top three largest grocers in the world, mainly based in the U.K., they tried that for quite some time with mixed results.

Again, it's about behavior change. If you look at people and what incense them to buy one product or another, this -- what they call front of pack labeling -- unfortunately, most people who shop, they shop based on cost, quality, efficacy, and oh, by the way, carbon footprint is somewhere down in the list. It's usually not the top five.

Now, there's emerging science, there's emerging data, there's emerging tools like Good Guy that allow you to shop, barcode scanner and all, scan a UPC code and actually see not just the carbon footprint but the whole environment, the social footprint. You know, some of the data -- and a number of others are really giving easy tools. I can't emphasize. It has to be easy. Because if it's not easy, nobody does it.

Greg Dalton: Good Guy, there's an app above -- more than a million people have downloaded the Good Guy app to make that -- those kind of quick, simple purchasing decisions, the Good Guy app. Yes, let's have our next question. Hi.

Female Audience: Hi. That was mostly answering my question, so I'm gonna switch. I have this huge pet peeve that everyone's running to the Arctic to see the glaciers melting. (Laughter) I mean I can't even believe my smart buddies who care about climate change and the trips.

So I guess the question is with peer-to-peer marketing or you alluded to role modeling. How can we use some of those -- and social networking -- some of those techniques to change the way people who think it's cool to be environmental -- or actually maybe doing some of the wrong things. And I think you -- I like that idea of this simple rational way to make decisions. Maybe that's part of my question.

Greg Dalton: Who'd like to fill that one? Gernot Wagner?

Gernot Wagner: Well -- I mean the honest truth is, right, one person taking a backseat and saying "I won't go on that cool trip to Kilimanjaro or the Arctic or the Antarctic to see the melting glaciers," isn't going to make a difference. And if you don't go, someone else will or someone else will make the say, "All right, you don't go on that flight to London to make the sales, someone else will do it on your behalf." What it takes in this case is once again, right, if everybody incorporates the full cost of flying in their personal decisions -- and has to because it's due to policy change -- by the way, the European Union for example is taking the lead on this one including aviation emissions under its cap-and-trade system, then by all means, right, go fly as long as you pay for the damage you cost.

Greg Dalton: And the United States by the way is pushing back on the EU effort to [simultaneous conversation] --

Gernot Wagner: It's doing that, yeah.

Greg Dalton: Yes, Glen Low?

Glen Low: Let me just add one thing, which is this whole point of view if you get the right people to change behavior, it causes a disproportionate way. So we've taken people -- not the - just the glaciers but other things as well, what we call positive deviants. So, corporations or people who are doing things outside of the norm whose business models were replacing the old business model.

And so we've taken a hundred billion dollar CEO to Africa. Because we were convinced that if we have him experience sustainability, that it would actually change how he thought. And he did. He starts actually stocking products that he wouldn't have stocked before. And so -- I don't want to downplay this experiential part of sustainability because, let's be honest. Climate change were perfectly suited not to do anything to climate change, right? How we're wired. Because climate change is the generational externality. It's a geographic externality and a socioeconomic externality. The feedback loop for us to actually do something is really difficult. And so if you can take someone who matters to actually see and taste and experience sustainability, that can actually have a difference.

Greg Dalton: Running it up on our kids' credit cards. Let's have our next audience question. Welcome to Climate One.

Female Audience: Hi. My one question, and then I have a couple of comments was directed at Glen. Who do you think other than Blu Skye, like your company -- are the in the best position right now to get to those right people to effect systemic change?

Glen Low: I think a lot of the -- well, Environmental Defense Fund is a fantastic organization. There's a number of leading NGOs -- I would pick Conservation International there as well. There's a whole emerging -- over the last 10, 20 years -- group of NGOs who are really focused on changing business. And I'm convinced that if you can change the purchasing power of those businesses, it changes everything. So I think there's those NGOs. There's a number of foundations out there as well, local foundations actually that are really focused on sustainable markets. Can you effect change in a specific market like seafood, like beef, which has this huge signature footprint.

And there's a number of corporations out there and organizations out there who are doing it.

Greg Dalton: And the best way to do that is to effect individuals and they get to the market level.

Glen Low: Yeah. And to your point, Greg, it's a lot about concentration. You have to find the pinch points, the choke points in the system and go after those.

Greg Dalton: And we are out of time. You can ask them afterwards if you'd like to. Our thanks to Glen Low, principal at Blu Skye, Chris Jones, co-chair of the Behavior, Energy and Climate Change Conference and a researcher at the Energy and Resources Group at UC Berkeley, and Gernot Wagner with Environmental Defense Fund and author of the book *But Will the Planet Notice?* I'm Greg Dalton. Thank you all for coming to Climate One today.

[Applause]

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