

Cheaper, Faster, Better: Tom Steyer on Winning the Climate War

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Greg Dalton: I'm Greg Dalton.

Ariana Brocious: And I'm Ariana Brocious.

Greg Dalton: And this is Climate One.

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Greg Dalton: On today's episode we're talking with billionaire investor and longtime climate activist Tom Steyer.

Ariana Brocious: You may have heard about him back in 2020, when he ran for president on what was essentially a climate-first platform.

Greg Dalton: Or from his recent best-seller - it's called "Cheaper, Faster, Better: How We'll Win the Climate War." The book focuses on using capitalism to scale clean energy.

Ariana Brocious: Which brings up a couple questions: like how much of the climate crisis has been **caused** by capitalism - this ruthless pursuit of profits - and can the same system also be used to **solve** the problem?

Greg Dalton: Those are fair questions. One way I think about it is, capitalism hasn't always looked the same. The US had a robust market economy in the 50s and 60s, but much higher tax rates - And that coincided with a far bigger middle class.

Ariana Brocious: And now the middle class is shrinking, taxes are lower – especially for corporations, whose chief concern is usually shareholder profits.

Greg Dalton: That's what they're designed to do. Although, some of them are trying to balance profits with other priorities – like with ESG: environment, social, governance. The Environment part of that means – super simply – companies voluntarily take steps to reduce their pollution before the government requires them to do so.

Ariana Brocious: And there has been hard pushback by some in the industry who don't want any "rules" for investing...even voluntary ones. And others think that ESG investing is just a way for the industry to avoid regulation.

Greg Dalton: Totally true. But it's more nuanced than that. Sure, there are some CEOs who want ESG to help get the government off their back, AND I think there are people who work at those corporations who want to believe that they're working for more than just maximizing profits. And that can be true for investors too.

Ariana Brocious: Sure, I understand wanting to put your money in something that you feel good about, but I have to say, when we talk about capitalism as being a solution to this problem, I struggle with that because I think that my generation, millennials, are struggling widely and it's because of some of the the systems that have been in place for decades. Housing affordability has gotten out of control. Even renting in lots of cities and buying is out of reach for a lot of my friends. Wages haven't kept up, that's part of why things feel so expensive. A lot of them are struggling with a mountain of student debt. And then when you factor in the climate harms caused by these same corporations, I have a hard time seeing how capitalist billionaires – or capitalism writ large – will be the solution to the problem.

Greg Dalton: I totally hear you. All of which is why we were so interested in having Tom Steyer on the show. Regardless of whether we agree on the amount power billionaires should have, they do hold significant influence.

Ariana Brocious: Right, and when it comes to climate, Tom Steyer is using his power and his money as a force for good.

Greg Dalton: Last month, I spoke with Tom Steyer in front of a live audience at the Commonwealth Club in San Francisco. I started by asking him to take me back to a pivotal moment in his life. It was 2012, when Steyer decided to walk away from the hedge fund he founded to devote his life to climate action.

Tom Steyer: I was working in the Exxon building to tell the state of Alaska what to do with the excess tax revenues coming off the North Slope. And they wanted me to come up with development projects, and what I said was, save the money for when the oil runs out. You know, put it in the bank. And they ended up, at the end of the summer I made my presentation, I thought the guy who would hire me was going to literally punch me in the face. He said, I hired you to do development, and you're saying put it in the bank. That's the exact opposite of what we want to do. But they ended up doing the permanent fund. They were smarter than me because they did save the money, but then they paid a dividend to everybody. But I had a great summer. I loved the woods.

It was incredible. 2006, I took my family up there to see what I'd seen so they could see what North America looked like. And they could see all the birds, and they could see the fish, and they could see the mammals, and they could see the woods. And they could see Denali. And it was all melting. And so we all came back to San Francisco and said, you know, Oh my God, like this is real. Maybe we can

make a contribution. Let's figure out why we're not dealing with it. And then we started, you know, all of us started trying to figure out what we can do about it.

Greg Dalton: Yeah, I went to the Arctic, um, in 2007 and had a life changing epiphany and saw the melting and came beach-

Tom Steyer: It was incredible.

Greg Dalton: Right. Fertile time. And also Al Gore's first film came out around that time. So that may have influenced both of us. What are the biggest personal changes you've made since you centered your life on climate?

Tom Steyer: I'd spent 27 years starting a business, which had started, you know, in a room with no windows and which became a big investment business. And I was also on the investment committee and a partner in another big investment business for 27 years, which also had started with nothing. And what changed, I mean, I wanted to change because I could afford to change, but I also wanted to change because I want a meaningful life.

Greg Dalton: And you had, you built some of that wealth in fossil fuels, which you've now

Tom Steyer: We invested, my God, until I really realized what was going on, we invested in everything and fossil fuels are the biggest business in the world. And so we'd invested in stuff that, you know, today I would be like, you know, we should shut that down ASAP. But, you know, what are the biggest changes? The biggest change is who I hang out with because You know, I, I went back a year ago, say, to meet with 15 people who either ran the big banks in the United States or big private equity firms. With Jennifer Granholm, who's the secretary of energy and a couple other people in the energy department to talk about what Wall Street could do to finance a clean energy transition. That was what it was about. And what I realized was, my God, I am so different from these people. Even though some of them have been my friends for 40 years. They are doing, you know, I talked to a very good friend of mine. We've been friends literally for more than 40 years. And I said, do you know this stuff about climate? And He was at the meeting. He runs a big firm. He goes, no, I said, do you know what 1.5 C means? He goes, no, even the most basic stuff about climate. He was like never heard of it. You know, they just asked me to come to this. So I'm here and I said, well, you're a good person. How about if I sit down with you and I talk to you about what I think is going on and you think about whether your firm should be doing something different And whether you should be doing something different with your life

Greg Dalton: And these are highly intelligent people who, who study macro trends and everything else, and they don't know 1.5 degrees of

Tom Steyer: But here's what they do know: they can make a 12 billion dollar loan for a liquid natural gas facility in south Texas or Louisiana and make a very good rate of return secure rate of return on it. That's what they know.

Greg Dalton: And that's all that matters is the rate of return.

Tom Steyer: We had a conversation at that dinner I was like you got to be kidding me if you think that's an okay thing to do and they're looking at me like, Who invited this guy to a meeting of bankers for christ's sake

Greg Dalton: So the, so you've evolved and they haven't quite, they're still working within this system that it's all about earnings per share, bottom line. And you know, your book makes the case that capitalism is the most effective mechanism for driving large-scale climate progress. Yet many

economists say that climate change is caused by a failure of markets to price pollution because polluters don't pay in our system. We use this, the atmosphere as a unpriced, unpriced sewer. So. You know, so

Tom Steyer: Which is true.

Greg Dalton: So do you agree that climate is a result of market failures?

Tom Steyer: Absolutely. So let's just take a step back and think about what capitalism does and what it doesn't do. Capitalism is a very, very effective way to incent things to get done well and fast and scale. But the other thing that's true is it is not a moral system. It is an effective system. The rules every there's no such thing as a free market. So people talk about as if god set down these rules of the free market that does not exist. Human beings set the rules the first markets where the market's going to be where you get to put your stall, when the market opens All set by humans the new york stock exchange closes at 4 p.m Not said by God, by the way. So, in that system, people obey the rules of that system pretty much. And one of the rules of the system was, basically, we're going to get the cheapest, best energy. And if you look at human, you know, lifestyle standards of living, they're extremely highly correlated with energy usage. So since 1800, much more energy usage per person, very highly correlated with fossil fuels, and it's absolutely connected to people's lifestyle changes and increased standards of living. The problem was, it turned out that we were polluting in a way that nobody knew. No one set out to dig oil and gas so they could heat up the world and ruin it. But people got very used to not paying for their pollution and they love making the money. And so once it's established to say to people, okay, now we're going to charge you for your pollution is really hard because they're, you know, biggest industry in the world, making trillions of dollars, very hard to push that over. So that's been the, that's capitalism works, but it works according to the rules that are set up. And if those rules say you can hire a 14 year old and pay him a quarter for 12 hours worth of work, they'll do it because they did it in this country. So the rules really matter.

Greg Dalton: And so how do we change the rules? If we need to, you know, price on carbon, we've heard about that. You know, most economists would say price on carbon is a solution. Hasn't happened. It's gradually happening around the world. Um, so how do we change the rules so that capitalism doesn't destroy us?

Tom Steyer: So I'd say there's a couple of things going on. And let me say, give a little, um, advertisement for something I've got nothing to do with. There's a computer program at MIT. And you get to put in all the things you want to change, you know, policy things, and it shows what happens to the climate, you know, in terms of how much impact does it have in terms of reducing emissions and changing the trajectory of climate change. And the thing that's the most powerful is the price on carbon. It's kind of, depending on what you put in, it's really, really effective, just so you know. But that is on a computer program at MIT. In the real world, in the United States of America, it's very hard to put in new taxes. And so what the IRA, which is the Biden administration's huge, successful, you know, biggest ever climate bill, is basically a carbon tax on its head. Instead of charging people for polluting, they're paying people who produce the same thing without polluting. So it's a subsidy instead of a tax.

Greg Dalton: Carrot, not a stick.

Tom Steyer: And it, that's how it's designed. Basically what they're saying is, if politics is the art of the possible, that's what we could do. And it's a huge bill. And it's designed to both speed up deployment of existing technologies and create new technologies.

Greg Dalton: So you think that, you know, capitalism can do things quickly. We need to move quickly on climate. Capitalism is a good thing. It has some flaws that need, need to be fixed. AI is exploding. The energy use of AI is jaw dropping and truly alarming. Microsoft is building a hundred billion dollar data center. And there's some indication that Microsoft and even Google are easing off of their climate commitments because AI is juicing their profits and their stock so much. So talk to us about AI as a climate problem because it's not getting discussed very much. And could this get ahead of, you know, by running in this market that you say is not moral, the incentives for these companies to do things that are good for themselves and bad for the planet. It's pretty strong.

Tom Steyer: Yes, it is. So if you think about it, you know, we, we've had pretty flat electricity, you know, demand in the country for a long time, and AI is supposed to basically increase it by about 20%, which is a revolution. And the argument is partly, that we're going to build more fossil fuel electricity capacity because we can do it. Because we know we can do it and we know we can finance it and we know what it costs. And the other part is that we're not going to retire the fossil fuel existing plants that we were otherwise going to retire in place of renewables. So it's both. It's new stuff and also not retire old stuff. We should talk a little bit about what these different things cost and what the cost means. So, just so you know, solar and wind are much cheaper than natural gas and coal in terms of electricity, much. And they'll go down another 80 percent and they'll be, there's no comparison right now. They're not close. And that disparity will only widen over the next 5 years, 10 years, 15 years, 50 years. It's also true that people always love to talk about this: The Sun doesn't always shine, the wind doesn't always blow and one of the things about these data centers and an AI demand is they need it 24 7 365 Absolutely for sure. if the sun doesn't shine and the wind doesn't blow and you have a Texas style meltdown, that is really bad. So they really can't go there. Having said that, There are several things happening in terms of getting over the problems with the renewables that aren't always available. And I'll name three quickly and we'll talk about money in this context because money matters. Batteries, 80 percent cheaper than a decade ago, will go down another 80%. So when you think about wind and solar, if you store it in a battery for long enough, it's the equivalent of permanent availability. Secondly, One that I may be overestimating, I hope I'm not because I believe in it, is enhanced geothermal going down into the crust of the earth, getting hot water and steam, using it for electricity. It's perfectly clean. It's really starting. Old geothermal was, when you think about Old Faithful, they'd go down maybe 500 feet, now they're going down 5,000 feet. They're using fracking technologies, they're using fracking rigs, they're using people from the fracking

Greg Dalton: a good story because it's a transition path for oil and gas

Tom Steyer: Absolutely, and they will. And they definitely will. But it's, it, the question is how much of it is there? My sense is, I hope I started by saying, I, I don't know. Cause nobody knows. You never know how much some of something there is until you start looking for it. So for instance, there was supposed to be a shortage of lithium three or four years ago, and people started looking for it. Now there's a glut of lithium. People are finding out every place has lithium. No one knew it because no one looked for it. And the third thing that people talk about is nuclear. And there are two different kinds of nuclear. One is basically taking the old fission reactors and trying to make them safer, smaller, and get rid of the waste problem. And the other is fusion,

Greg Dalton: the one that Sam Altman thinks and others think that's going to power AI is fusion. Some people. not

Tom Steyer: You know, the thing about technology, just to put this in context for you guys, and I'm sure people in this audience know more about this than I do, but I invested in nuclear fusion in 2006. And they told me 20 years, so they're definitely a little slow. There are about 70 companies trying to do this, 12 somewhat serious companies, five to six very serious companies. I talked to the CEO of

one of them maybe a month ago. The next version, which will be, I think he said net energy positive, meaning they will have to use less energy to create the energy than the energy that they get, has to go to 70 million degrees. And it's not going to be, that's not commercial. To be commercial, You have to get to a hundred million degrees.

Greg Dalton: I can't even get my head around that.

Tom Steyer: it. It's, it's impossible. You have to recreate the sun. That's actually what nuclear fusion is. Recreate the sun in a safe way. Look, these people think that they're going to do it sometime and it's a big range, I know, between 2030 and 2040. That they're going to have, it's going to be approved, it's going to be available. And, you know, I said, what's it going to cost? Because one of the issues with nuclear, just so you guys know, that all the nuclear plants that have been built, all the people who've said nuclear is the answer, they build them and it's like, just to put it in context, coal and natural gas are probably 5 cents a kilowatt hour, wind and solar are probably 1 to 2 cents a kilowatt hour, nuclear is 40 cents a kilowatt hour. I mean, it's supposed to be much, much, much cheaper, but every time we do it, it's multiples of what people expect, partly because there are all these regulations because people are worried about, you know, like Three Mile Island and Chernobyl and toxicity, reasonable things to worry about. So, I'm just saying, the other thing that can happen is fusion or that we get small nuclear reactors that are safe in the old fashioned way without the real toxicity.

Greg Dalton: After the break, I'll ask Tom if there's a technological innovation on the horizon that will take us out of the climate crisis. That's coming up on Climate One.

Ariana Brocious: If you'd like to hear an ad-free version of our show, join us on Patreon. Thanks for your support!

Greg Dalton: This is Climate One. I'm Greg Dalton.

Let's get back to my conversation with author, billionaire businessman and climate activist Tom Steyer. As a climate-solutions investor, Steyer seeks out emerging technologies that could change the world and transform the marketplace. I asked him: what's caught your eye recently?

Tom Steyer: I'll give you just three. There's a million smart people in this country and around the world working on this. That's one of the reasons that I say, we're going to win cheaper, faster, better is because. We have a whole bunch of really, really talented young people working on this who are scientists and engineers and financiers and every, every kind of problem solver that you can think of. So one of the things that's true is people are very worried about cattle. And people are very worried about the methane from cattle. That it's, you know, going to destroy the world and it's terrible and we shouldn't eat meat and we shouldn't raise cattle. So just so you know. The methane from a cow actually comes from a parasite in the cow's gut, not from the cow. And so people have developed an enzyme that kills the parasite

Greg Dalton: Is this feeding them seaweed? Is that the thing

Tom Steyer: No, no, seaweed is different, seaweed is different, and I, I could, we could go through what I think about that. But just so you know, it's just a problem that we can solve. And it costs six cents a day. Second one, which is kind of gets to my point. You know what, 8 percent of emissions worldwide are concrete and cement. And it's considered one of the hard to abate sectors. And, you know, people are building all over the world and they have huge cement and concrete plants all over the world and it's kind of par for the course. But, if you do current sensors, software, and AI to change the soup that is concrete and cement, you can come up with something that is just as strong,

much cheaper, and has half the emissions. A large part of what we have to figure out is, how do we do this in the footprint and the context that we live in now? Because we're not going to tear down every building in America and rebuild it in a energy efficient or emissions neutral way. That's not going to happen. So the question is how do we do it given what we, where we are now, given what we have now, given the rights of ways and the rules we have now. And the last thing I'll say is this, this is the 21st century. We have a 21st century problem. The 21st century is about information. Our ability to measure emissions, our ability to measure sequestration, our ability to give managers and people measurement, transparency accountability. those measurement systems don't exist. That's the way we will actually from a strategic standpoint be able to solve this is put the capability into the hands of managers of governments of neighbors so that everybody knows what's going on and then ask people to solve it and I'll give you an example one of the I think they're called magnificent seven companies. So I'm friends with some of the people there and the person who was in charge of this, they did their scope three, their supply chain emissions measurements. And they told me we had no idea where the emissions were coming from. We thought we knew, we didn't understand a big part of it, and we immediately had three strategies to figure out how can we reduce these without increasing costs. That is the biggest thing we're going to do in my mind. The day we have good measurement systems across the board, the day that they're transparent so managers and people from outside the companies can see them, that day we win.

Greg Dalton: So measurement, cleaner cows, clean, cleaner cement. Um, how

Tom Steyer: Cows are not clean.

Greg Dalton: yeah,

Tom Steyer: want to tell you.

Greg Dalton: And you own a cattle ranch, so you would, you would know. Um, so hearing all this sounds a little bit like the techno optimist theory of change. Technology can save us. And when I hear that, I get a little concerned that, Oh, that means we can leave the rest of things in place. That means I don't need to change a lot myself. Uh, yeah, we could change the rules of capitalism a little bit, but I can relax because you know what? Some cool tech's going to come along in a few years and it's going to be, it's going to be okay.

Tom Steyer: I would not say that, and I think that's a great question. Look, I think this is an all of society response that we need. I think this is changing very deeply the way we not just generate and use electricity, but the way we do all the huge systems in our country and around the world. We have the capability to solve this. No question in my mind and that is the technology, but that doesn't mean we've gotten it done. And you know the the analogy that I use in my book is to World War II. We had the technology to win World War II before we got into World War II. The problem was we weren't building any of the ships. We weren't building any of the planes. We weren't building any of the tanks. We were living our lives and I think that the United States decided We have to do this. And that meant from 1941 to 1945, we built no passenger cars because we decided as a people and as a government and as businesses that that's what we were going to do because it was that important.

Greg Dalton: Right. And there are some people who would say that we know everything we need to do. We just need to do in World War II, which is Repeat, repeat, repeat. And deploy and scale the things we know how to build. We don't need new widgets that Tom Steyer invested in. If we just deploy

Tom Steyer: We can do it.

Greg Dalton: We have

Tom Steyer: Okay, well, let me just, just to continue and maybe torture the World War II analogy. I think we invented a whole bunch of stuff during World War II. There is a whole bunch of things that we came up with between 1941 and 1945 to end the war effort that changed everything.

Greg Dalton: So it's both and.

Tom Steyer: Of course it is. Look, the real question is, can we decide together this is worth doing? If we do, we can do it. This is not a part of society solution. This is people from all over the country. People of both political parties, people who disagree in a lot of things and may decide to do this for completely different reasons. This is a global problem and requires a global solution. But as an American, I, we have to remember that the people in Texas are smart, hardworking, and patriotic, and they have to remember the same about us. And we have to figure out they are not going to come to us and say, you're smarter, you're better, you're more moral. We're going to shut up and do what you say. We're going to have to come to this for our own reasons and accept each other and welcome each other. And if we can do that, we can definitely do this. And if Texans want to, they know a ton about electricity and energy. They know a ton about what's going on. And if they will take that knowledge and their money and devote it to this, then I say, God bless them.

Greg Dalton: You come from a very elite background, you know, elite schools, Morgan Stanley Goldman stacks. There's a theory of change, which is elites lead this through the people who buy Tesla's early, you know, by technologies when they're expensive and then they make them more affordable for the masses. And there's another theory. It's like, No, elites are not going to lead this change because they have the most invested in the way things are. They're very comfortable, thank you very much. Elites are not going to lead this climate revolution. Where do you fall on that kind of elite led change in relation to more popular change?

Tom Steyer: This is going to be an all of society change, that means all of society. Leave people behind. If we want all of society, we have to have all of society figuring out what to do in leadership positions. Doing things in ways that might be different, bringing their own values. Experience and knowledge and values to it. And so when I look at this, it's not going to be 15 people from Wall Street. It's not going to be 15 people from Harvard. It's not going to be 15 people from the New York Times. Thank God. It's going to be people from around the country who care about the same things, who are decent people and realize, okay, this is a challenge. It's also a huge opportunity for us. This is a gigantic opportunity for all of us. Let's go for this and let's put our spin on it. I think that people generally posit that you change your mind and you change your behavior. Whereas I think in this case, and in most cases, you change your behavior and then you change your mind. You know, the people who work in enhanced geothermal are thrilled to work in enhanced geothermal and they're basically oil field workers. It's a change. Their behavior is changing the way they see things. They don't want to destroy the planet. They want a job. And if people get into this and participate in it, I think that's the best way to change people's attitudes about what we're really trying to do.

Greg Dalton: But there's a school of thought which is individual change is, is, is not, is insufficient. You know? Paper straws and recycling and your electric car and my electric car. It is not enough. We need to change systems. Most of us don't think in systems. How do we act as individuals and then try to drive systemic change because individual action is necessary and insufficient,

Tom Steyer: Yes,

Greg Dalton: We need to change capitalism. We need to change all these systems around us. And so this is that the conundrum of individualism, right?

Tom Steyer: So yes, and here's what I would say, and I don't know if this is going to be convincing, but this is something I say in the book. In World War Two, people had victory gardens and they basically grew food in their backyards or wherever they could because they wanted to have more food for the troops. And so, one of the things that people did was to change their lives in ways, but we did not win World War II because of Victory Gardens. But we did change people's attitudes and we did change, you know, that was something where people were making a commitment that was visible and was saying to other people, this is what I care about, you know, I'm all in on this. So from my standpoint, yeah, I do drive an electric car. Do I think that's going to save the world? No, I don't. You know, it's sort of like voting. Is my vote going to change the presidential election or who's going to win the Congress seat in San Francisco? No, I don't think so, but we all have to contribute and I always vote. I feel exactly the same way about this is like, we should all be thinking about it. We should be feeling responsible for it for our own sake, for our family's sake, but also for everybody else's sake. You know, we have responsibilities across society. That's a big part of being in a democracy. That's who we are. That's the United States of America. We recognize that. That's the American experiment.

Greg Dalton: And that democracy is being exercised right now. The last time you and I sat here on this stage, you were running for president and Democratic candidates were trying to outdo themselves with trillion dollar climate plan and five trillion dollar climate plans. And there was a lot of race to the top among climate, uh, Democrats on climate. We barely heard climate at the Democratic National Convention. Um, Kamala Harris doesn't talk about it very much. A lot of green groups have endorsed her. The Green New Deal Coalition and, and other groups. You know, she endorsed the Green New Deal. She's changed her position on fracking. You know, looking at Pennsylvania. Um, so what's your take on Kamala's climate position? And is, and the amount of, the prevalence of climate in this campaign? Which is pretty low.

Tom Steyer: So I think you have to, Take a step back. You know, Kamala's from California. She has a long history of behavior around climate and energy. She's been a climate leader. She was as AG. She, you know, she's part of an administration that's been by far the most climate aware administration in American history. If you're looking at this campaign, not to be rude, but it doesn't seem like it's kind of, driven mostly by policy at the moment And so

Greg Dalton: Maybe a good thing, because Democrats often preach policy and that's not where people are.

Tom Steyer: And so my point is here's somebody who has a long history of being a client, you know a positive climate leader who Has stood up on this issue for decades and is now running a campaign that is mostly about a very stark difference about whether we're looking to create a new future or whether we're trying to get back to our past. And I think that's the campaign that we're seeing. And do I believe that a energy transition and a climate awareness are a critical part of creating a new future? Of course I do. I mean, that's what I spend all my time on. Is there any question in my mind whatsoever who is the candidate who represents me? None. I'm 100 percent confident that there's a clear choice here. There's a choice that I believe in and there's a choice where I feel like it's absolutely contrary to the things that I think data, science, and common sense and morality all point.

Greg Dalton: So as a climate guy, you're okay with climate not being talked about a lot. Maybe that's a good thing. Your book is cheaper, faster, you know, the cheapest and fastest way to move the US to cleaner cars is, you know, to import from China where they're, because they're, they're cheaper, it's faster. Biden has said, well, we got to, let's build in the U S what we got to build the factories. We got to build the battery factories in the U S we don't have them here. China already has them. So he's choosing jobs over for speed. Is that the right path?

Tom Steyer: that getting the cheapest goods into society is a benefit for all the people who are going to buy those goods, but it's a bad thing for the people who are competing against it. And when you, in terms of jobs, but let's take a step back and talk about China for a sec. Cause in climate, China is the big kahuna any way you cut it. So if you look at emissions, China is 33 percent of global emissions. The U S is 11. Just to put it in

Greg Dalton: Current historic missions were bigger.

Tom Steyer: we're the big cumulatively. We're the biggest. But right now they're literally three X us. They haven't peaked. People think they'll peak maybe this year, maybe next year, but they haven't peaked. We have. They are also the biggest supplier of wind turbines, solar arrays. Electric vehicles, batteries, they are, their economy is troubled and they're hoping that they can, as always, export their way out of it, and they think this is their big chance. And so they are focused. But if you think about it, we're importing all those things, or we could be importing all those things, that are made with very dirty electricity. And are basically we're, we're allowing them to emit in order for us to get stuff that's clean. So in a way, this isn't just a jobs versus, you know, um, emissions question. This is an emissions question both ways.

Greg Dalton: It's also a strategic question. If we want to let China own those industries for the 21st century and control them and us be dependent on them and the way that we're now dependent on the Saudis and others.

Tom Steyer: And we're talking about, you know, two industries, which last I checked are fairly significant industries, energy and cars. Like the car industry is a gigantic industry globally. The energy industry is the biggest industry globally. So the real question is, are we going to compete in these? Are we going to engage in these? Are we going to go out and succeed in these?

Greg Dalton: So, you know, so your fate in favor of, you know, the IRA, which is building, you know, sub, uh, supporting financially, uh, battery plants, uh, infrastructure in the United States. A lot of this, by the way, is going into red states, uh, and there's a real fissure in the Republican party about whether they're, if they get in power, they're going to repeal the IRA, et cetera. But we do have a problem that a lot of the EVs tend to be in blue areas of the country and EVs are now part of the culture wars. You know, EVs tend to sell an upper income and blue parts of the country. So how concerned are you about, you know, clean energy? Getting pulled into the culture wars and solar is not cool in certain parts of the country. Cause it's, they, you know, I'm not

Tom Steyer: So here's what I'd say. People talk a lot. People love to run their mouths, but the book is called cheaper, faster, better. So let's talk for one second about EVs and electricity. Renewable is much cheaper. In 2023, so last year for the last year, we have statistics for a whole year. 86 percent of new electricity generation globally was renewable. That was not because anyone was being nice. Don't expect anyone to be nice. It's cheaper. They bought it because it's cheaper. Texas has tripled its solar capabilities in the last three years. Not because they love solar because they're cheap. They're going to add another 35 percent this year. People talk in the United States about the slowdown in EV growth. Still growing, still growing faster than the car market by a lot, but not as fast as before. But let's talk about the United States as a car market. We are weird. Very weird. People here drive 5,000 pound cars to the store to buy diapers. No one else in the world does that. Plus, we're a big country and people drive a long way, which means that we have to be able to go a long way on a charge or we feel it's unfair that we have to fill up. In China, which by the way is the biggest car market in the world, over 50 percent of the cars sold in China in July were EVs. They're going to 80 percent fast. I don't know how many of you guys drive an electric car But let me say this of my friends who definitely are not climate aware. They think electric cars have better pickup. They think they handle better. They think they're more fun to drive You know, and I feel that way like on a

nice sunny day with a good tape deck You can have a great time in a car EVs are better cars.

And so when we look at this cheaper faster better do I think If batteries go down 80 percent again this decade, which they will, what is an EV? It's a battery with a car with a chassis around it. That's all it is. If the battery goes down 80 percent and it gets a, you know, you can, a bigger range, aren't people going to buy? Not because it's good, not because You know, someone told them, are some people still gonna use their turntables? Yes. But are most of us going to, you know, go Spotify? Yes. And this is Spotify.

Greg Dalton: So I love the fact that you have a daughter, Evie, who has E.V. in her name. Um, um, she's worked with you on climate justice for a very, a long time. And she said to you once, um, as you write in the book, she was considering not having kids because of climate. What did you say to her?

Tom Steyer: So let me say that I work with, fortunately, quite a few young people and she is far from the only person who's under the age of 35 who thought bringing a child into this world might be a big mistake. And I was like, Ev, come on.

Greg Dalton: And fertility is going down.

Tom Steyer: Yeah. But I will say two things. One, having a child is a oint about optimism and I strongly encouraged her to like not make a permanent decision about this because she could easily change her mind and this is a beautiful world. And in fact, I think we'll create a better world than we've ever had. So, I definitely am not in favor of people not having families, which I consider to be, like, one of the world's great pleasures. And I will say one other thing. She's pregnant.

Greg Dalton: Thank you, uh, for sharing that. Didn't expect that was going to go there.

Tom Steyer: she didn't expect me to say it either. She may call me tomorrow. I'll say, you have E.V. in your name. She'll say, Dad, what did you say last night?

Greg Dalton: A big round of applause for Tom Steyer for joining us at Climate One.

Greg Dalton: By the way, you can see a video of our conversation - live at the Commonwealth Club in San Francisco - at our website, climate one dot org.

Ariana Brocious: The leaders of industry have incredible power to reshape our civilization's response to the climate crisis. But how reliable are they when it comes to prioritizing people over profits?

Naomi Oreskes: When government is incapacitated, it really does leave us at the mercy of the private sector, the goodness of the hearts of corporate America. And as we've just seen, there's some pretty cold blooded stuff happening in the heart of corporate America.

Ariana Brocious: That's up next, when Climate One continues.

This is Climate One. I'm Ariana Brocious.

Greg Dalton: And I'm Greg Dalton.

Ariana Brocious: So we heard from Tom Steyer about the "rules of capitalism." And again, he's an investor and businessman.

Greg Dalton: Right. And he has a particular faith in using capitalism to solve climate problems.

Ariana Brocious: But of course the rules of capitalism were written by capitalists. And to understand how that set the scene for the climate crisis, we spoke with Naomi Oreskes. She was on the show last year. She's a historian and co-author of the book: "The Big Myth, How American Business Taught Us to Loathe the Government and Love the Free Market."

Greg Dalton: Oreskes believes that a particular aspect of capitalism - something called Market Fundamentalism - is the cause of climate chaos.

Naomi Oreskes: Market fundamentalism is the belief that we can just trust markets to solve our problems. Uh, we think of the big myth as having three parts. The first part is the idea of the free market that there is or ever could be such a thing as the free market that stands apart from human culture institutions. That's wrong. Uh, the second is the idea that markets have wisdom, that they're efficient, that they have agency. And so we should just trust the market to do its magic and government needs to get out of the way, lest the government distort the marketplace. And then the third part of it, and this is the part I think is most pernicious, is the claim that markets don't just give us goods and services, but they actually protect our freedom. That economic freedom is a bulwark against totalitarianism, and therefore that any compromised economic freedom, even for something seemingly reasonable like, regulating tobacco puts us on a slippery slope to socialism, communism, or worse. So that's the myth, that's the mythology. But, the reality is that if we think about what capitalism is, well, that's a much more complicated story. The capitalist system, as we know it, has changed a lot over time. different countries that all self identify as essentially market based economies, manage their economies in quite different ways, have very different balances between market forces and governance and governmental forces. So there are many choices available to us about how we manage capitalism. People have made choices that have brought us to where we are today. And we have the potential to make different choices.

Greg: How did this framing of markets and government relate to the writings of the intellectual father of capitalism, Adam Smith, and what parts would Adam Smith recognize and not recognize?

Naomi Oreskes: So most people have heard of Adam Smith. Many people think of him as the father of modern capitalism. And if you've never read Smith's work, You might think that he believes in free market fundamentalism, just let markets do their magic, everything will be fine, and you would be wrong because that's not in fact what Adam Smith says in *The Wealth of Nations*. So *The Wealth of Nations* is a big, complicated, sprawling book, and it's written in a very verbose 18th century style, but if you actually read it, what you find is that Adam Smith has a sensitive and nuanced view of the challenges that are being faced by an emerging capitalist economy. And one of the things he discusses at length is the need for banking regulation. He correctly anticipates all of the problems that we have seen in the 19th and 20th centuries, that if you let bankers just pursue their self interest, you can end up with a collapsing bank system that will pull down the entire economy. And he discusses that in 1776. He also discusses the need for minimum wages that factory owners left to their own device will pay literally starvation wages. And he discusses how children in 18th century England are in fact starving because their parents don't make enough money to feed them properly. Um, and he discusses the need for taxation to pay for public goods that the market can't or won't provide like roads, bridges, hospitals, and the like. So it's a pretty great book, but it's not what a lot of us think Adam Smith said. So one of the questions we posed, well, why is that? And the answer in part is because George Stigler, an economist at the Chicago school, the famous, you know, Chicago, University of Chicago's Department of Economics, published an edited version of Adam Smith in which he removed all of the places where Adam Smith discussed the needs for tempering self interest.

Greg: Wow,

Naomi Oreskes: I think it's important to realize that the lionization of business leaders depends to a large extent on a misrepresentation of American history, particularly 19th century history when the U.S. government and the state governments played a major role in developing the economy, uh, through investments in infrastructure, through protective tariffs to protect fledgling industry. And of course, governments were highly involved in things like building the Erie Canal, which was essential for the economic development of New York state and New York City. So the reality is that government has always been involved in the marketplace for better or worse. But the idea that business leaders somehow do this all on their own because they're so tough or so smart or so talented is really part of the myth

Greg: Naomi, in climate, we have this, this lionization of business leaders and we look to them as saviors to help us from the climate disruption. Bloomberg, Branson, Gates, Doerr, the list goes on. Their money and social standing is solicited in the effort to decarbonize the economy. Is that looking for love in all the wrong places?

Naomi Oreskes: You bet it is. Yeah. I mean, this is such a tricky question because I often get asked, well, you know, aren't there benevolent business leaders who are trying to do the right thing? And I think there are some, and we certainly see some corporations that are moving in the right direction, but the scale is too small. The pace is too slow. And part of the problem is the continued focus on the quarterly profits, because we know that in the long run, if we don't fix the climate crisis, it will do massive economic damage. And we're already seeing big losses in the tens of billions of dollars from extreme weather events that have been made worse by climate change. But in the short run, if I'm a business leader running my particular business and looking over my shoulder at Wall Street, the incentives are all in the wrong direction. And so this is the core problem. And so, you know, one of the things we say in the book is that if we actually had appropriate regulations, appropriate rules of the road, whatever we decide those might be, we wouldn't be in this position of having to beg corporate leaders not to destroy the planet.

Greg: Naomi, you talk about the root of market fundamentalism We're like, we're atoms separate from each other. You reference John Stuart Mill's classic definition of freedom that anyone can do what they want, unless it impinges on someone else. Is that true in the age of climate chaos, where our personal emissions actually directly and unintentionally amplify droughts, fires, and floods that hurt people.

Naomi Oreskes: All of the big environmental issues that I've written about, whether it's climate change, the ozone hole, acid rain, or public health issues like endocrine disrupting chemicals or smoking cigarettes, are all cases where individual actions impinge on the rights, freedom, safety, and well being of other people. And so this is the fundamental problem with an individualistically oriented economy in which we analyze everything in terms of individual choice, individual freedom, whether it's the freedom of the individual consumer or even the freedom of the individual corporation. Whereas the reality is we live in a world where everything is interconnected. And, um, as you said, the John Stuart Mill says, well, it's fine, fine to do what you want, as long as it doesn't impinge on others. And even Friedrich von Hayek, one of the founders of neoliberalism said, well, but the problem is you always do impinge. And this is the piece that I think we've had a tremendous trouble coming to grips with in American life because running through all market fundamentalism, running through the Chicago school of economics, running through every libertarian think tank in the United States is this core commitment to individualism. And, you know, if you go back to the declaration of independence, the bill of rights, um, the U S constitution, the 18th century focus on individual rights in contradistinction to a tyrannical monarch was a completely understandable position to take in that historical and cultural moment. But here we are, right, nearly 300 years, 250 years later, and that model is failing us. And so I think that unless we have a bigger, broader, more capacious conversation about how we balance Individual rights versus the collective good, the

commonwealth, right? I mean, I keep coming back to the notion of a commonwealth. This idea that we, we aren't just atomistic, that we actually are in this together. But it's not, it's not the dominant way in which we've thought about problems in the United States.

Greg: Right. Economist Milton Friedman helped establish the primacy of shareholders over other stakeholders, employees, communities, customers. In 1970, Milton Friedman explained his economic philosophy in an article in the New York Times Magazine, in which he said, quote, there's one and only one social responsibility of business: to use its resources and engage in activities designed to increase profits so long as it stays within the rules of the game, which is to say engages in open and free competition without deception fraud.

Naomi Oreskes: So this is where, when we begin to scratch below the surface, there's just huge amounts of hypocrisy and even dishonesty in a lot of these arguments. Because you're right. Uh, Milton Friedman says, yeah, as long as without deception or fraud, but we know there's a huge history of deception and fraud in corporate America, And one of my favorite is that General Electric in the 1950s, aggressively promoted free market ideology, hired Ronald Reagan to help them do that, had a television show, General Electric Theater, that every week sent a story into millions of American homes, promoting didactic stories of individual success through hard work without help from the government or anyone else. But while they were promoting free enterprise capitalism on television and to their own workers, they were conspiring to rig electricity markets for which they were prosecuted in the 1960s and convicted. And, um, some GE executives also Westinghouse, it was a conspiracy with GE Westinghouse and the other major electricity companies. And some executives actually went to jail. So, you know, they were convicted of fraud and a conspiracy to commit fraud, conspiracy to rig electricity markets. So there's deception and fraud throughout this history. So the whole ideology. is fundamentally based on a lie. It's based on asking us to trust that these corporations will behave themselves when in reality we have abundant evidence that they don't. And just one other quick thing: One of the key pieces of that quotation you just read is when Friedman says, um, so long as they stay within the rules of the game. But not only do they not stay within the rules of the game, they engage in monopolistic practices. You know, deceptive advertising, et cetera, but also they use those giant corporate profits to change the rules of the game, to lobby Congress, to hire. smart lawyers, and also to prevent enforcement. And so one of the key things that the Chicago School of Economics does in the fifties and sixties and into the seventies is to develop a set of arguments against antitrust enforcement. And these become very, very influential and powerful. So from about the 1980s until really today, we have seen massive non enforcement of antitrust statutes, which were designed to protect the rules of the game and to protect competition and to protect against the development of monopolies.

Greg: And you mentioned Ronald Reagan and his connection with GE bringing this story into American living rooms. I didn't realize before your book, uh, that, he went into GE a New Deal Democrat and came out an anti government conservative Republican. I want to play a clip from Ronald Reagan, which I'm sure you'll recognize.

Ronald Reagan: In this present crisis, government is not the solution to our problem. Government is the problem.

Greg: What do you feel when you hear that?

Naomi Oreskes: I feel sad, heartbroken, really, because of all the bad things that have happened in American politics in my lifetime, I think that was by far the worst because Reagan turned the American people against their own government and persuaded us that rather than seeing governance as the means by which people can express their will, uh, and the means by which ordinary citizens can be heard, he persuaded millions of Americans to think that government was the

enemy, to hate the government and to disbelieve in the capacity of government to address our problems. And when government is incapacitated, it really does leave us at the mercy of the private sector, the goodness of the hearts of corporate America. And as we've just seen, certainly in the case of GE, but in lots of other corporations as well, that have been well documented, um, there's some pretty cold blooded stuff happening in the heart of corporate America.

Greg: Naomi Oreskes is professor of the history of science at Harvard University and co author of the book, *The Big Myth, How American Business Taught Us to Loathe the Government and Love the Free Market*. Naomi, thank you very much for coming on Climate One.

Naomi Oreskes: Thank you. It's been great.

Ariana Brocious: And that's our show. Thanks for listening. Talking about climate can be hard, and exciting and interesting -- AND it's critical to address the transitions we need to make in all parts of society. Please help us get people talking more about climate by giving us a rating or review. You can do it right now on your device. Or consider joining us on Patreon and supporting the show that way.

Greg Dalton: Climate One is a production of the Commonwealth Club World Affairs, led by Gloria Duffy and Philip Yun. Our team includes Brad Marshland, Jenny Park, Ariana Brocious, Austin Colón, Megan Bisciegli, Ben Testani and Jenny Lawton. Our theme music is by George Young. I'm Greg Dalton.