

Is California's Climate Progress Going Up in Smoke?

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Greg Dalton: This is Climate One, leading the conversation about energy, the economy, and the environment.

Jerry Brown: California is committed to doing whatever it takes to meet the existential threat of climate change.

Greg Dalton: California is a climate leader. But recent reports say the state is at risk of falling behind.

Noel Perry: We looked at the numbers and the numbers weren't good.

Greg Dalton: Wildfires, housing sprawl, and pushback from Washington are hampering the state's efforts to further reduce emissions.

Rachel Becker: The feds have taken away California's power to police tailpipe pollution and run the zero-emission vehicles program

Greg Dalton: So what can the state do to get back on track?

Kate Gordon: We got to go way bigger than we've gone in the past and stop thinking of this as an environmental issue over here and start thinking of it as a budget wide issue that all of us have to get behind.

Greg Dalton: A climate report card for California. Up next on Climate One.

Greg Dalton: Is California still the climate leader it claims to be? Climate One conversations feature oil companies and environmentalists, Republicans and Democrats, the exciting and the scary aspects of the climate challenge. I'm Greg Dalton.

Greg Dalton: California has been at the forefront of America's climate fight since Governor Arnold Schwarzenegger signed the country's first major climate law in 2006.

Schwarzenegger: When we sign this we will begin a bold, new era of environmental protection here in California that would change the course of history.

Greg Dalton: His successor, Jerry Brown, built on that legacy and advanced the decoupling of economic growth and carbon emissions. But most of the low-hanging fruit has been picked, and

current governor Gavin Newsom, who took office in January 2019, now has to realize harder emission reductions while the state grapples with climate-related impacts.

Kate Gordon: If you look at the budget, our entire infrastructure plan is framed in terms of climate resilience.

Greg Dalton: Kate Gordon is climate advisor to Governor Newsom and Director of the Governor's office of Planning and Research. She previously worked on climate policy for Tom Steyer, Hank Paulson and Michael Bloomberg. Gordon points to housing and transportation as areas of priority for the Newsom administration, as they also deal with the effects of increasingly destructive wildfires.

Rachel Becker: California saw a fivefold increase in area burned since the 1970s.

Greg Dalton: Rachel Becker is an environmental reporter with CalMatters, and a former science writer for The Verge. In 2017 the state got more than half its electricity from renewable sources. Yet Californians are driving more miles and tailpipe emissions are rising.

Noel Perry: We need a rebirth. We need a renaissance.

Greg Dalton: Noel Perry is the founder of Next 10, which each year presents the California Green Innovation Index detailing the state's progress on technology, jobs, policy and more. He's a former vice chair of the board of Conservation International, as well as a donor to Climate One. I began our conversation by asking Noel why his organization, which has been a cheerleader of California's move to clean energy, is sounding the alarm bell with its most recent report.

Noel Perry: Because we looked at the numbers and the numbers weren't good. Specifically, what we looked at was that the state had reduced its emissions by about 1.15% and then we looked at what we needed to do to get to our 2030 goals which require a 4.5% reduction per year. And for the first time this was our 11th index where we have been pretty much a cheerleader for the tremendous progress that California has made. But the numbers really forced us to step back and highlight this because particularly within the transportation area. The numbers look particularly bad. So that's what our perspective was.

Greg Dalton: So Kate Gordon, what's that like to have an organization that's generally saying yes we're going in the right direction things are going pretty good. To sort of say, whoa not so good now or they need to go faster.

Kate Gordon: Yeah, I mean it was a great report and I recommend it to everybody. It wasn't a shock, I mean when I first started in my job actually almost exactly a year ago, a year ago yesterday. Governor Newsom who is very, very data-driven, the first thing I did for him was to look at all of our goals and to do an analysis of where we are and meeting them all. And so we weren't surprised. You know, the reality in California and in lots of places in the world actually is that many of the things we've done, we've done incredibly well. So California met its 2020 goals four years early to get to 1990 levels. We now have 2030 goals. We did enormously well as your report points out on electricity in particular. So renewables efficiency, electric vehicles were ramping up. The things where you can keep doing what you are already doing, but with a different technology we're doing really well on, right. So you plug the thing in and what's behind the plug is different. You drive your car the same amount, but what you're driving is different. Where we are now and what we see from the Air Resources Board data is that our transportation emissions for instance, which are going up about 6% a year. Most of that or much of that is because of how much people are driving and a lot of that is because of housing affordability. So we have this connection between affordability and

lack of affordability. People moving further and further, further out, commute times getting longer. Inability to access transit in many of these new communities and that's a very, very tough problem. That's a land-use problem more than it is a technology problem. And that something that we're spending a lot of time on.

Greg Dalton: And we'll spend more on that later. Rachel Becker, what was sort of the most notable part of the -- there's a couple of reports have come out recently saying California's been doing great, needs to go faster, work harder.

Rachel Becker: Yeah, certainly the transportation aspects in Noel's report transportation is responsible for about 40% of California's greenhouse gas emissions in recent years it's been climbing. And even as transportation emissions climb there's really very little sign that California is going to be able to get people out of their cars and driving fewer miles. And as this whole transportation emissions as they continue to climb, now the Trump administration is saying to California hey, your big tools for cleaning up cars for requiring zero-emission vehicle sales in the state and for policing greenhouse gases and tailpipe pollution we're gonna take those away.

Greg Dalton: So, Rachel Becker, can the feds really rain on California's parade can they really, how much can they hurt California?

Rachel Becker: That's gonna be figured out in court but right now the feds have taken away California's power to police greenhouse gases and tailpipe pollution and run the zero-emission vehicles program which requires carmakers to sell clean cars in the state. So that California has filed two lawsuits against the feds. California has also taken aim at carmakers that have sided with the feds. But this is really this is gonna be fought in court. It's a fight that may last beyond the next presidential election.

Greg Dalton: Kate Gordon, California has a very good record in court fighting oil companies fighting the federal government, you know, it has a very good batting average. But are you concerned that Trump could still really whacked California and make it hurt?

Kate Gordon: Yeah, I mean this is incredibly challenging for us. I think we have over 60 active cases right now between California and the federal government. It's very, very challenging because this is what our Atty. Gen.'s office is doing 100% of the time. There's things that they're not doing because they're doing this, right. And some of them are really worrying there is a recent case that the federal government filed against us for our cap and trade agreement with Quebec arguing that we are not a country and so we can't enter into a treaty. So that has big implications that case because if we can't do subnational state to state, state or region agreements on carbon pricing we're wholly dependent on the federal government to be, you know, expanding our carbon pricing regime, which is very scary to think about. So we're really paying a lot of attention to it. I think we have a great track record and we will win many of them but anyone who's ever you know, practiced law as I have a small firm and it's going up against a big behemoth, you just spent a lot of time. I mean it's an incredible timesink and capacity for the state.

Greg Dalton: Right. And creates uncertainty and slows you down. California's climate leadership started in 2006 when Governor Arnold Schwarzenegger enacted the country's first economy wide plan for cutting carbon emissions. We asked Julie Cart, a reporter at CalMatters and Rachel Becker's colleague to revisit the pivotal moments of that landmark law known as Assembly Bill 32 or AB 32.

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Julie Cart: 2006 was a period of time when California staked out its bona fides as being a state an entity that was going to respond to climate change. Because so many of the impacts of climate change, even though they had seem so far off were actually hitting California with drought wildfire, stop me when this sounds familiar with where we are today. But it was a time to respond and AB 32, which was with the law it set a deadline to reduce greenhouse gas levels to 1990 levels. So the goals that were set at the time under and signed into law by Arnold Schwarzenegger where sort of breathtakingly strict and can we ever achieve them. Prop 23 that was on the ballot in 2010 became a way for the fossil fuel industry to make its case about what it saw as burdensome regulations, regulations that would eventually cost taxpayers put people out of work, etc. and said, let's calmly rethink this. Some people think that it was a bit of an overplayed hand with that proposition and Californians responded by defeating it. Jerry Brown took over from Schwarzenegger and said, we're gonna run with this and was very, very proud for his two terms to go around the world and represent the state as a progressive, thoughtful leader in climate change. Jerry Brown's legacy really has to be that cap and trade program that was put in place and began in 2013. And the most important thing is it's created this slush fund \$6 billion of greenhouse gas reduction fund money that companies are paying into the system and that is the device that's the driver that is supposed to fund the many, many very expensive projects that have some nexus with greenhouse gas reductions. As he was leaving, Jerry Brown signed into law the extension of the original Global Warming Act and it wasn't simple. Jerry Brown was adding lots of other notions, including carbon neutrality. It was very clear that the Governor wanted this passed and so compromises were made and that's how things get done. So some people think that oil and gas industry got off lightly. Kevin Newsom on the one hand, has a public history of great interest in climate change the pivot now is that Newsom will preside over a time when the state has to do very, very difficult things to meet the goals that were set way back in 2006. The easy stuff has been done. The ratcheting up or the turning the screw on industry is gonna fall to Newsom and that's gonna be politically very, very difficult.

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Greg Dalton: That was Julie Cart, a Pulitzer Prize winning reporter now with CalMatters. Noel Perry, you're an investor in Silicon Valley. What do you think about the ending point there about now comes the hard part with business the conflict between business and would really aggressively decarbonizing the economy?

Noel Perry: I think that we're at a very important point here in California because we need to double down. We need a rebirth we need a renaissance. The success that California experienced over the last 30 or 40 years was because of the symbiotic relationship where you had investors and you have the government creating certain policies and the VCs and business people would ratchet it up to try to fulfill that policy money would be made. But I think we're at a very critical point right now and we need to I think it's a situation where it's all hands on deck. I think the governor, the legislature, business, counties, cities, we all need to roll up our sleeves right now because right now we're not getting it done but we can get it done. We have to find the will to do it. The technology is there and we've got to act now.

Greg Dalton: Rachel Becker your thoughts on whether, you know, Gavin Newsom whether his ambition is meeting the level of the challenge what we're facing right now.

Rachel Becker: It certainly gonna be politically difficult. During his campaign he called for, for example, zero diesel pollution by 2030. He called for a climate incubator, we're seeing some moves on the climate incubator in his latest budget ask. But there's a lot to do according to another recent report that came out from Energy Innovation that was more optimistic than Noel's Next 10 report but also said that California is unlikely to meet its 2030 climate goals. And Energy Innovation recommended a suite of climate policies, you know, taking aim at the cement industry making cap

and trade more stringent and variable with the distance that we get from our 2030 climate goals. Putting more electric vehicles on the road and all of these are they're tough asks.

Greg Dalton: Kate Gordon, recently today actually the organization 350.org sent out an email targeted at Governor Newsom asked for three things. Stop new oil drilling in California there's some reports that there been more permits for new drilling under the Newsom administration than previously, help workers transition from fossil fuels to clean energy jobs, and impose a health and safety buffer of 2,500 feet between any fracked well and homes and schools. What do you think about those three asks?

Kate Gordon: Governor Newsom is very cognizant of this issue. We're not in the top three anymore, but we are an oil and gas producing state. Important I think to start with the facts which is that as you've heard our demand for oil is going up. Every year in the state we use 100% of what we produce in state we don't export any of it and it's 37% of what we consume. So the rest of what we consume is coming from Saudi Arabia and Ecuador that's just important to know, it doesn't mean we don't act. But it's important to know that reality that that demand supply relationship we have to go very far down on the demand side before we hit that piece of our supply. But more important I mean the governor has been actually pretty proactive more so than Governor Brown on this issue. He's stopped fracking. He stopped high injection steam fracking, which is what was causing some of the kind of surface expressions or the bubbling up of oil in Kern County. We have a moratorium on new permits for fracking in general, as we're doing a big health and safety review. We've already pushed back in the federal government on some of the expansion again an issue where the federal government is pushing now back on us for doing that. And we're having a very, very serious conversation with that you may have read with folks in Bakersfield and Kern County in particular, our largest oil producing county about how to diversify that economy. So within California, and California is a really diversified economy as a state but Kern County is not a very diversified economy. The economy is very, very oil and agriculture dependent. And so it's a resource-based economy up and down with commodity prices. It's a tough, tough thing to think about how do you take those existing skills the existing assets in that county and really start thinking strategically with folks on the ground about what the future looks like that's more diversified and more stable and more sustainable and we're starting that conversation now. It's not easy at all but it is absolutely necessary.

Greg Dalton: You're listening to a Climate One conversation about California's story as a climate leader. Coming up, we'll ask about the impact of more frequent and more intense wildfires on the state's climate plan.

Rachel Becker: One question I have is politically what it would do to count California's wildfire emissions towards its 2030 climate goals. Will that sap motivation for cuts across the rest of the economy.

Greg Dalton: That's up next, when Climate One continues.

Greg Dalton: This is Climate One. I'm Greg Dalton, and we're talking about California's climate progress with Noel Perry, founder of Next 10, which publishes the California Green Innovation Index. Rachel Becker, environmental reporter with CalMatters. And Kate Gordon, climate advisor to California Governor Gavin Newsom. Kate explains how the Newsom administration's approach to (funding) its climate initiatives differs from its predecessors.

Kate Gordon: Traditionally the greenhouse gas reduction fund or the fund created by cap and trade has been the place in the budget where we've done climate work. It's been sort of the one place which is exciting because we've got this money coming from the auction but it's also --

Greg Dalton: Billions of dollars.

Kate Gordon: One thing. And many pieces of it are already appropriated through continuous appropriations and through legislative acts. What we did this year was to essentially take a step back and have exactly the conversation we're having here and to say we gonna get beyond that as our one part of the climate budget. And this year what the governor's proposed is a \$12.6 billion climate budget that goes across GGRF the Greenhouse Gas Reduction Fund but actually adds two big new pieces, a general obligation bond on climate resilience. Which we didn't talk about much and the reports don't talk about much, you talk about it a little bit. But we have to actually think about that as part of the climate conversation much more than we did frankly, when Governor Schwarzenegger and even Governor Brown were doing these policies. We have a state where the Governor's first week we had the PG&E bankruptcy and then the ratings agencies downgrading the three utilities. Wildfires are top of mind for everybody. And we have to be thinking about both how do we protect our state and our most vulnerable communities as well as moving to carbon neutrality. So we have the climate, the resilience bond which is directly focused on natural infrastructure investments that will reduce our risks from things like wildfire, flood, extreme heat, and sea level rise. And then we've added as you were saying a new proposed climate catalyst fund, which is actually intended to really de-risk some of these investments spur the private market to do way more than we've been asking in the past to get to scale on exactly these things that are already out there. They're commercial, they've been proven but for various reasons, including the stock market crash in 2010 a lot of private investors think that they're too risky. And so really what they intend is here is to say, we got to go way bigger than we've done in the past and stop thinking of this as an environmental issue over here and start thinking of it as a budget wide issue that all of us have to get behind.

Greg Dalton: Rachel Becker, what impact is the fire, are fires undoing California's progress?

Rachel Becker: It's a difficult question to answer. So Noel's report from over the summer said that wildfire emissions were outstripping greenhouse gas cuts across the economy by nine times. The California Air Resources Board, so California's climate enforcers said that that's not really a fair comparison because forests are part of the natural carbon cycle where in so, you know, whereas oil, humans bring that up out of the ground to burn it. The caveat though is that humans are worsening wildfires. California saw a fivefold increase in area burned since the 1970s. And that's been in large part because climate change has been warming up the fuels and making them crispier and really priming the West to burn. On top of that humans are responsible for 84% of the ignitions across the U.S., according to a study that came out a few years ago. So while wildfires are part of the natural carbon cycle, humans are certainly making them worse. So one question I have is politically what it would do to count California's wildfire emissions towards its 2030 climate goals with that sap motivation for cuts across the rest of the economy, Director Gordon?

Kate Gordon: It's the reporters they just have to ask questions, right?

Greg Dalton: Love it. I'm just gonna sit back and watch.

Kate Gordon: I'm taking a step back on this because I think your point is important one about kind of human contribution to the fires. The thing I have to bring everything back to land use because I'm a planner and that's what we do. But it's also really important issue in California we have 11 million people living in what we call the wildland urban interface, which is a kind of a squishy

definition but basically overlaps pretty much with the Cal fire definition of high fire risk areas of the state. Just in context, all of southern Australia which is obviously having a terrible fire experience right now has about a million people. So we have 11 million people in these areas. Some of that again is due to people moving further and further and further off in the cities. When we, and this is why I don't buy the electric vehicles are the answer to this entire problem. When we convert an acre of land from agricultural or conservation uses or forest uses to urban uses, a number of things happen. One, you get a 50 to 70 times increase in the carbon emissions by doing that. Two, people start driving more because there's more cheap housing further away from cities. Three, and importantly, we lose firebreaks. So if you look at the most recent fire that didn't hit St. Helena up in north of here. Vineyards acted as firebreaks to that fire. Orchards acted as firebreak for the Santa Rosa fire that we had a couple years ago. We are making decisions when we do these land-use changes that are almost they're very hard to reverse and they are in fact exacerbating this problem. Because the more structures we have and people and power lines in all of these parts of the state that used to naturally burn in and burn out. The more we have those things the bigger the fires the more destructive. So we really, really do need to take an integrated approach to this it's why we put a billion dollars in the fire management in the budget and why we're doing the climate resilience bond. You have to take an integrated approach to this that looks at the land-use side while you're investing in the technology side and thinking about what kinds of technologies and vehicles and transportation options people have. It's critically important not to leave that over on the side or leave it out. It's a huge part of the puzzle.

Greg Dalton: And also part of that is housing density, Kate Gordon, Seattle banned the single family housing. Oregon has a statewide planning. Let's talk about other states and who's doing this well, you know, getting infill density, transit all those who's doing it putting the pieces together well?

Kate Gordon: There's actually two cities that have reduced only two in the United States that have reduced their vehicle miles traveled, which is sort of the metric for how much people drive in the last 10 years. And that's Minneapolis and Seattle. Both of which banned single family zoning actually. Oregon is interesting because it's the only state that can do that at the statewide level and the reason for that is because in the 70s the farmers and ranchers in Eastern Oregon organized and essentially changed the Constitution to allow for state level planning so that they could get things like urban growth boundaries. It's interesting to look at those dynamics. We do not have that, California's Constitution actually specifically gives control to local government over planning.

Greg Dalton: And do you think that solving climate is gonna require more concentration of state power because we know that community meetings slow down and kill housing projects.

Kate Gordon: I think that we have I mean our job as the administration and then the Governor's job as the overseer of the state, not from a specific district is to look at this from a statewide perspective. And at some level how I think of it is actually how do we promote infill and how do we promote land conservation. They're two sides of the same coin. They both have multiple benefits from a climate perspective. What are the tools that we have at our disposal like the infill infrastructure grant program which helps cities build infrastructure so people can do infill housing. Strategically finding those tools where the state can make a difference is incredibly important. I think it's very unlikely we're going to get to where Oregon is on scalable planning.

Greg Dalton: We're talking about California's story as a climate leader. The state has made impressive reductions at carbon emissions but study say it's not on track to meet its goals over the next decade. I'm Greg Dalton. My guests are Kate Gordon, climate advisory California Governor Gavin Newsom. Noel Perry, founder of Next 10 publisher of the California Green Innovation Index. And Rachel Becker, environmental reporter with CalMatters. Noel Perry, what's the upside here

what are the bright spots. Investment, innovation, jobs, shine a little sunshine on this.

Noel Perry: So in 2017 the state of California got the majority of our electricity from renewable resources as opposed to fossil fuel.

Greg Dalton: That was a crossover?

Noel Perry: Yeah, that was very important. Secondly, in terms of other states across America we have the second lowest carbon footprint.

Greg Dalton: Per person or per unit of GDP?

Noel Perry: Exactly. And I think one of the most important areas for the future of California is the ability to get more electric cars on the road. So positive thing. We have half the electric vehicles in America. I don't know what it's like 400,000 or 450,000.

Kate Gordon: We have 700,000.

Noel Perry: 700,000, okay. So we need to do so much more in that area and I think that the part of, you know, dealing with the transportation issue is gonna revolve around that it's going to revolve also around what Kate was talking about. These are some of the biggest issues the whole commute times going up as Kate will start living farther a way that traveled that you have to do. But I think from a state policy perspective and locally we've got to come up with ways to enhance the use of electric vehicles. If you rent in California it's very hard to charge your car. I think that that is the --

Greg Dalton: Grant in any state it's hard to charge.

Kate Gordon: Or if you don't have a garage.

Noel Perry: I think that's a huge issue. And if the state can work on one issue it's so much because it relates to range anxiety too. If you know you can go to work come back, charge your car get up and leave as opposed to driving around looking for someplace to charge it. But charging stations --

Kate Gordon: Huge priority.

Greg Dalton: And so we have a story here in California where electricity done a really good job most of California's reductions have been in the electricity sector. Most of the curves are going in the right direction in terms of things are going down and we want to go down, but transportation is the thing that's going in the wrong direction. San Francisco did a study from 2010 to 2016 on the ride-hailing services that were supposed to if you remember they were going like oh they were gonna put a dent you don't need to own a car anymore they're gonna be part of the solution. Well, the study found that half of the hours of traffic delay were due to these ride-hailing, Uber and Lyft. Half of the increase in vehicle miles traveled half of the reduction in speed and travel times was because of these ride-hailing services. So this service that was sold to us as like, oh it will be make life easier and also solve climate change too is making all the stuff worse.

Kate Gordon: Yeah, I mean it sort of how you use it, right. I mean if we were to all do the shared rides whenever we call a Lyft or an Uber which I bet we don't all do. I don't always do it. It would be a slightly different story. I mean this is an interesting I think thing to think about when we think about autonomous vehicles, which many people have now started talking about as the solution to all problems and the fix of all time.

Greg Dalton: Remember the paperless office?

Kate Gordon: We look at Ubers and Lyfts and you sort of see what happens when people have a chauffeur at their command which is pretty similar to an autonomous car that you can call whenever you want. And what happens is that people take it, even if they're going less than a mile instead of transit or instead of another option it's a very -- what it's done is reduce transit ridership significantly which has been a real challenge actually across the board in cities in California. And I think what we need to be thinking about in its some of this is in the state's power and some isn't, but we need to be thinking about this collection of how do we get to like Dan Sperling from UC Davis always said sort of how do you get to shared electric and autonomous not just electric and autonomous. How do you get to the shared piece to the piece that's about integration with transit systems, because some of the step isn't accessible to people too. The folks that are taking the Ubers and Lyfts are not the lowest income people in California.

Greg Dalton: Rachel Becker.

Rachel Becker: The California Air Resources Board also came out with a recent study about CO2 emissions from Uber and Lyft and found that they were producing 50% more grams of CO2 per passenger mile traveled. And the reason for that was even though the fleets were generally cleaner than kind of the broader California fleet, these cars were driving around without passengers more than a third of the time.

Greg Dalton: Deadheading they call it. Deadheading. So Noel Perry, that's an example of the sort of this school of thought which is the techno-optimists school that technology will solve this things. Does the Uber and Lyft example, which is they're basically they're valued as tech companies, right. Does that put a dent in your confidence in the techno-optimist argument?

Noel Perry: I think as I said, I think we have most -- we don't have all the technology, but the issue here in California I think is more one of will. Although I think in the EV section I think the two big things with EVs, there's cost and there's range. Really want to see the cost of EVs come down, you know, they're \$12-\$15,000, you know, with the battery. But I don't want people to think that oh we'll never gonna get here we don't have the technology. It's a question of will right now. Will California, will the leadership, will we step up and do it because if not us, who? And we have to do this, you know, California's only one percent of total world emissions. So, you might say all right well whatever we do isn't gonna have a major impact on the world. But we have been a leader in so many areas you know in terms of cars and emissions and the waiver and other states adopting what we did and also in terms of energy efficiency cap and trade not so much. But what we need to we've been the leader we need to regain that leadership because we need to be influential with the rest of the world because the rest of the world's been looking toward us for a long time and we need to step up and do it.

Greg Dalton: Kate Gordon, you know, when Donald Trump was first elected Jerry Brown was kind of the face of climate advocacy kind of like he was the ambassador for climate on the world stage. Haven't yet seen Gavin Newsom walk into that role. Maybe the generational difference, Brown was obviously carrying this strong and political legacy his father had been governor of California. Where is Governor Newsom in terms of, you know, not that he can or should but looking at that role as leading because California is look to internationally particularly with the Trump administration destroying all the climate laws now. The world looks to California.

Kate Gordon: And I would argue we are still leading. I wouldn't say regain the leadership I think we have kept our leadership role we're continuing to lead. We're leading in a broader range of things to be honest we're leading on climate resilience which we have not done before. We're leading on, you know, reducing climate risk we're leading on, actually taking our own investments in assets that we own as a state where a major investor and asset owner and we're leading on and

aligning that with our climate goals which had not happen before. I think what you see, I mean Governor Brown in his first term spent most of his first term dealing with the budget.

Greg Dalton: Getting the economic house in order.

Kate Gordon: He did not allow his staff to travel. People know who work for him, and he cut costs all over the place. His second term when the budget started looking better was when you started seeing this real outward looking leadership on climate change. And I think it's worth remembering that and it's also worth remembering again that the first week of Gavin Newsom's term was kind of -- and honestly the first nine months was characterized by wildfire and the PG&E bankruptcy which is a very, very significant issue for him. So he's essentially got his crisis issue. That and homelessness are crisis issues for the state they are where he is focusing and to his credit, he's making both of them climate issues. If you look at the budget our entire infrastructure plan is framed in terms of climate resilience. His executive order in September is framed in terms of climate resilience and housing and transportation. It's a different approach it's where I think the world is going. It certainly where the private sector is going. We're mainstreaming this across sectors across regions. It's a macroeconomic issue like globalization like automation it is something everyone is gonna have to be thinking about all the time. It's not one issue that you choose and you're out talking about. It's part of everything.

Greg Dalton: You're listening to a conversation about California's climate leadership. This is Climate One. Coming up, how California and other states can learn from their past to ensure a more just transition ahead.

Kate Gordon: We got some of the poorest counties in the state up North and, you know, in some ways it's what happens when you don't do a just transition plan and you don't think had about an industry decline and what to replace it. We're kind of experiencing that now.

Greg Dalton: That's up next, when Climate One continues.

Greg Dalton: This is Climate One. I'm Greg Dalton. Climate One records many of our conversations with a live audience at our modern and green new home on the waterfront in San Francisco. When you are in town, I invite you to come check us out. Our programs are open to the public and listed on climateone.org. [pause] We're talking about climate resilience in California with Kate Gordon, climate advisor to California Governor Gavin Newsom. Noel Perry, founder of Next 10, publisher of the California Green Innovation Index. And Rachel Becker, environmental reporter with CalMatters. Bigger cars and more miles are a large reason California's transportation emissions are rising. But with much of America's trade with Asia passing through California ports, another big part is the freight and trucking industries, as Rachel explains.

Rachel Becker: Freight is responsible for about 8% of the greenhouse gas pollution in the state but 25% of the diesel particulate pollution which is just bad news. It causes you know, kind of on the lighter side it causes eye and throat and lung irritation. And on the like much the really like life-threatening side it can cause heart disease and lung disease and lung cancer. And this is especially problematic for folks who live along freight corridors and near ports. I talked to one mom in San Bernardino who is so proud of her two kids who are track and field stars but when she watches their races she has to hold their inhalers. And ever since they started toddling around she has been having, she had to take her firstborn from hospital to hospital, to hospital to try and figure out why

her baby couldn't breathe. So the diesel particulate pollution is a major public health problem for folks along freight corridors. And the California Air Resources Board so California's clean air and climate enforcers are considering a rule right now that would require truck makers to sell clean trucks in the state much like carmakers are required to sell clean vehicles in the state. And the rule is controversial because there are concerns about it from both sides the local communities and environmental groups. I think it's not tough enough the rule as it's written now would put about 75,000 clean trucks on the road by 2030, which is only about 4% of California's trucks. And from the other side, truck manufacturers are worried that if they are required to sell clean trucks in the state but no one is required to buy them yet, then they'll be putting all of these trucks on the market going all this expense and no one is gonna buy them. So the Air Resources Board heard these concerns they're considering them there's gonna be a new draft to the rule in the spring. But I'm very curious where the administration stands on this giving Governor Newsom's comments during his campaign that he, you know, that diesel was a hat trick pollutant and has to go.

Kate Gordon: Yeah, it's a huge priority for us I mean putting significant funds into a bunch of different pieces of it into straight on the hood rebates for clean trucks and buses. But, also into engine replacement for ag and off-road vehicles, which are a big contributor to diesel pollution. Also an enormous amount actually it's the largest chunk of the greenhouse gas reduction fund that's discretionary into air monitoring and community engagement in areas that are most affected by pollution. So again, it's this tension where you have to deal with the impact as well as dealing with the problem at the same time right in the budget. So we're looking at it across a number of areas. There's no question freight is a knotty problem in the state. In the Inland Empire alone 10% of all the nation's warehouses. And if you drive around, I recently drove back up from Fresno, and if you drive around you start to see these warehouses taking up more and more and more of what was agricultural land. And that's pretty big deal and that's because of the move to e-commerce of course. So you see a hollowing out of the downtown retail and then you see these gigantic warehouses and Prologis which is a big buyer of them is buying millions, you know, tens of thousands or almost million acres of land to do this. There is enormous amount of speculation and development going on in warehouses. And every time we do warehouse development we're opening up new freight corridors. So it's a really important issue. We need to think about moving freight off the roads into rail could we figure out a way for that to reduce emissions. We need to think about, you know, changing our buying patterns once again an incredibly hard thing that would require behavior change but this is what is driving this pattern. And so it's critically important. The last thing about freight that's important and I just learned like two days ago is that trucks are just significantly more have significantly more impact on our roads. So road repair we just have to spend enormous amounts on road repair because of the increases in truck traffic. And that's true actually with electric too in fact more true because they're heavier. If you do batteries instead of engines they're heavier vehicles and so there's more of a road impacts. So these are just things we have to start thinking about.

Greg Dalton: Kate Gordon, California increased the gasoline tax what, 17 cents. I've noticed there's a lot of road construction going on. Fuel that people pay at the pump if they run on gasoline electric cars don't pay that are they getting a free ride and how can electric cars should they pay their fair share for the roads that they damage like everybody else?

Kate Gordon: Yeah, I mean it's certainly another big incentive for electric car ownership. I mean I would put it in the category of a major incentive that the state provides to electric car owners and buyers. And I am an electric car, I own a GM I'm sorry, I have a Chevy Volt. It was before they did the letter, so. It's a great question but I will say that a lot of conversation is going on about this question about trucks in particular because trucks don't pay any more. I mean they pay a little bit more because they have more gas but they don't pay as much more as they should if it was

proportionate to the impact on the road repair cost.

Greg Dalton: But there's some pricing models for electric cars which involve pay per mile. Everybody knows where the car is like, you know, Tesla, they can track your miles and sort of pay per mile which would be the most fair thing to do.

Kate Gordon: It's definitely something I know the California Transportation Commission is talking about it.

Greg Dalton: Rachel Becker, 2008 we had a presidential campaign, John McCain, Barack Obama both basically supported cap and trade. Cap and trade has been a key part of California's climate approach it's expanded to other countries and provinces. Does it work?

Rachel Becker: That's a big and difficult question to answer. Cap and trade is, you know, a program that aims to curb greenhouse gas pollution from major emitters, you know, power plants, cement companies by issuing a limited number of permits to pollute. And so the idea is that it incentivizes low-cost upgrades to plants to reduce pollution or companies have to buy that dwindling number of permits that decreases over time and trade them among themselves. California's top policy wonks at the legislative analyst's office took a look at a suite of policies across the electricity sector to look at what policies were cutting emissions effectively and how much each of those policies were contributing to the cuts California is seeing in the electricity sector. And they had a tough time figuring out the contributions of cap and trade specifically in the electricity sector, but the issue that they were in to was figuring out what would've happened if there weren't a carbon price. So in the last, you know, 10 years we've seen recession natural gas has, the price of natural gas has gone down. We've seen a shift away from coal. And all of that is really tough to tease apart to figure out what exactly the contribution of cap and trade is.

Greg Dalton: Kate Gordon, I wanna talk before we go to audience questions, about some hard to get at sectors. Cement, shipping, aviation, these are things that in the case of aviation and shipping the assets move around and any one country is hard to get a handle on them and submit is a significant part of international carbon emissions. How is California and anyone else can get at those hard to get at sectors?

Kate Gordon: I'm really excited about cement because we actually have proven technology now on carbon sequestering cement which is if you sequester carbon and cement during the process of making it, it actually hardens more quickly. There's economic benefits to doing that from the cement buyer perspective. One of the things that we have is a lot of buying power, we're a very big state and we're doing a couple projects that use an enormous amount of cement and one of them is high-speed rail and the other one is the Delta tunnel. And so looking at those projects and our ability to do procurement as a driver for these industries is really exciting. There's a policy that was passed in the last administration called Buy Clean California that actually doesn't expand to cement yet but could that looks at some of the things we procure like steel and glass and says we got to do a lifecycle accounting on carbon of those things. I think our procurement power is under-recognized and it's exciting, so cement is exciting to me. Aviation, actually SFO is doing a whole sustainable aviation fuel pilot because most some of the European airlines are pushing them to do it. And there's a really interesting question of whether we can take some of the wood that we're getting out of the forest through our billion dollar plus forest management programs. We're doing an enormous amount of clearing of forest right now creating these slash piles that are on the side of the road, what do you do with them, right? I mean you actually ended up having to burn them if you don't do something with them. And so can we do what Oregon's doing actually this thing called Red Rock it's a facility up there can we actually convert some of that waste biomass coming out of forest floor and these are not kind of trees being cut down this is, you know, borer beetle impacted, wood and it's

wood coming off the forest floor, it's the stuff we're raking, according to the president. Can we use it and actually make aviation fuel and I think that kind of stuff is super, super exciting they are real technology advances. These are areas where I think technology is super exciting. I think we can do a lot.

Greg Dalton: Another forest innovation, cross-laminated timber. What is it that makes buildings it's fabulous they're good for earthquake performance fire performance construction time. And it could be a real way to create markets to get forests fuel out of the forest.

Kate Gordon: Yeah, it's super exciting. I mean so cross-laminated timber is essentially a way of doing wood laminate that strengthens it exponentially. And so you can do 12 to 14-story buildings out of wood with this stuff instead of building them out of steel and concrete. So a big impact because the wood also can be waste wood essentially non-salable timber. We can do all kinds of stuff with it. We're actually being beaten on this by some of our neighbors Idaho and Oregon both have cross-laminated timber mills. It's an interesting thing when you think about like the whole just transition conversation that we lost our timber industry for a variety of reasons, including globalization and other things.

Greg Dalton: Environmentalist.

Kate Gordon: Yes, and the owls. We lost our timber industry we let a lot of our forest roads get grown over and we don't have a lot of mills anymore. And so unlike Idaho and Oregon, we can't ramp up really quickly on cross-laminated timber, or on any sustainable fuels. We have to think about how to reinvest in some of these communities which were really decimated and how do we sort of start thinking about a more sustainable approach to wood products in the state. It's a really big question but it's critically important in the northern part of the state. We got some of the poorest counties in the state up North and, you know, in some ways it's what happens when you don't do a just transition plan and you don't think had about an industry decline and what to replace it. We're kind of experiencing that now, so.

Greg Dalton: Yeah, and the governors of Oregon and Washington are quite keen on that. We're gonna go to audience questions. Welcome.

Female Participant: Hi, my name is Mary Kelly. I was wondering what role does agriculture play in California's climate policies and how California is addressing the huge environmental impact of animal husbandry.

Greg Dalton: Thank you. A malpractice on my part for not bringing up ag yet. Thank you.

Rachel Becker: Agriculture is the -- soil is a big source of smog forming emissions, which is sort of fascinating to think about how managing the soil might also help reduce smog.

Greg Dalton: Yeah it can also sequester carbon storm water.

Kate Gordon: Sequester carbon, the whole healthy soil. And also keep groundwater there's a lot of good research in California in particular that healthy soil can actually keep groundwater in the top layer soil so we can use it, reclaim it much more easily. So it's really important.

Greg Dalton: Next question.

Male Participant: My name is Jorg Schleicher I'm part of the climate branch of the European Institute of Innovation and Technology. The thing is, since Uber and Lyft is such a big problem, are there any public innovations for public transport to combat this. Is there something where the state

is thinking about or cities how to put a competition into the market, which could do a better service?

Greg Dalton: I mean one answer is electric bikes and scooters, right. You think that really solves the first mile last mile to and from transit as well as the short hops around town. I take the bike share all the time.

Kate Gordon: E-bikes are sort of the first and last five mile actually. There's a lot of data that people are taking them for much longer distances than they took the non-electric bikes. It's pretty cool and they're actually coming into service in some rural areas too. One of the most exciting things to me that's happening in West Sacramento actually has done a pilot on this that's very cool is on-demand vanpools. So in less dense areas where you can't have a dedicated bus route where there's a lot of density, you know, you have everyone living here you have all the work here. Doing these on-demand shared vans which could ultimately be which should be electric and could ultimately be autonomous actually that's replacing a bus service. West Sacramento just did a pilot where they took away their bus service in one area and replaced it with on-demand vanpools and they found transit ridership went up dramatically, particularly among teenagers and people over 70 which is an interesting combination of people. But because the wait times are much lower, right. If you have something on-demand you know when it's coming you got the app it's less than a 10-minute wait usually it's going from where you are and where you want to be they are very, very successful in particularly sort of like last dense suburban and rural areas. We see them in agricultural areas there's on-demand vanpooling happening for farmworkers for instance. So that I think is super cool and to me the most exciting application for AVs because these are less dense areas there's less of a safety issue and it's a very, very clear need.

Greg Dalton: Kate Gordon, if someone doesn't live in California why they should they care about what we've been talking about today, people who live in other states. Why does California matters we don't live in it.

Kate Gordon: I mean, yeah, it matters because we're the fifth largest economy in the world. If we were a country we'd be the fifth largest country in the world, it's big. We are incredibly diverse so I feel like we've been a leader on climate change. We've been incredibly aggressive and ambitious and it's been incredibly exciting. Now dealing with these hard issues not only are we sort of leading on trying to figure out how to deal with these hard issues. We have a lot of complexity in dealing with them. We have an oil and gas sector, right. I mean we have a lot of building materials in concrete. We've got these forests issues. We've got the fires we've got all these impact. So we're grappling with a lot of issues in this microcosm of California that are issues happening all over the world. And I think that we, you know, we are leading on the hard stuff. And I think we can show the world how to do it if we get it right.

Greg Dalton: We've been talking about California's climate progress with Kate Gordon, climate advisor to California Governor Gavin Newsom and Director of the Governor's office of Planning and Research. Noel Perry, founder of Next 10, publisher of the California Green Innovation Index. And Rachel Becker, environmental reporter with CalMatters.

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Justin Norton, and Arnav Gupta. Devon Strolovitch edited the program. Dr. Gloria Duffy is CEO of The Commonwealth Club of California, where our program originates. [pause] I'm Greg Dalton.