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PARTICIPANTS:

Welcome:

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Opening Remarks:

HON. SCOTT PETERS, U.S. House of Representatives

Presentation and Moderator:

JOSEPH KANE
Fellow, Brookings Metro

Panel Discussion:

LUCIA ATHENS
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P R O C E E D I N G S

MR. TOMER: Good afternoon, everyone. And good morning to folks who are streaming on the West Coast. First of all I want to thank everyone for joining us both on the stream and here in person. This new virtual event world, it's fascinating to navigate, so thanks for taking the time to be with us wherever you're sitting.

My name is Adie Tomer, I am a senior fellow here at the Brookings Institution, and on behalf of my colleagues I want to thank everyone for taking the time to join us for today's event, "Accelerating City Climate Planning and Action in an Era of Historic Federal Investment."

About nine months ago our Infrastructure team kicked off a major project for us. Like many of you, we were deeply concerned about the risk factors associated with climate change and the country's inability to respond, particularly by reducing emissions, or decarbonizing. We also feared Federal climate politics was stuck in a stalemate. And we worried if American communities could lead the public response until Washington joined them.

It's easy to be curious about cities on climate issues. Mayors have been some of the most important truth tellers among residents and business owners about threats to their communities and what proactive climate response could do to build a more prosperous future for all.

At the same time we know that cities were not on track to meet their climate pledges. Our goal was to investigate why the reality didn't match the rhetoric.

Fast forward to today, and we all know federal politics took a dramatic turn. The passage of the Inflation Reduction Act is the kind of major federal response that seemed impossible just nine months ago.

The market-shaping programs and public investments have instilled a genuine sense that America may just be able to make the big moves the moment demands. Transitioning to clean, renewable energy generation, modernizing our transmission lines, eliminating gasoline use in our vehicles, retrofitting our real estate.

And with any political drama at this scale, Congress' work also influenced our media environment. Where despair led almost every climate story what felt like for decades, now hope often

takes center stage. I'd wager the well-read public knows more about 2030 emissions targets than many of them every expected. Personally, I welcome that kind of optimism.

But while Congress did major work and the media found a new voice, some truths did not change. Climate change still demands a collective response. And Washington cannot achieve its goals if cities are not able to join them.

Which takes us to today's event. In a moment I'm going to turn to your actual host for today, my colleague Joe Kane. Joe is also a fellow here at Brookings and will present the findings of our recent study of city decarbonization plans, which is available on the Brookings website right now. I urge you to go check it out, everything's free of course.

Then Joe will moderate a conversation with two of the people doing the hard implementation work across the country. Lucia Athens from Austin, and Saleem Chapman from Philadelphia. Fly, Eagles, fly.

But before I introduce our opening keynote, I do want to thank a couple of folks really quick. First enormous thank you to Carolyn George and the Jamal Russell Black for their co-authorship on this work. And always to wherever she is, tireless Karen Slachetka for all their hard work both coordinating an in-person and a virtual event in this setting. I also want to thank the San Diego Foundation who made much of this work possible in collaboration with our colleagues at the San Diego Regional Policy and Innovation Center.

Then sticking with that geographic note, I'm honored to introduce our opening speaker, Representative Scott Peters of San Diego. Representative Peters has been a trusted voice on climate and infrastructure issues in Washington for a decade, and that builds on over a decade of local government leadership. He firsthand understands the urgent need to defend communities of all kinds from climate change and to modernize America and the opportunities available through that investment.

Representative Peters, thank you for joining us, and the floor is yours.

MR. PETERS: Thank you very much for the opportunity to join you and for all of Brookings's work on this helping cities navigate these tough times.

We have a lot of challenges and a lot of opportunities before us in energy. An energy

crisis in Europe, a war in Ukraine, rising prices in the United States show us the vulnerability of our energy systems to global events. And extreme weather, including flooding in Pakistan, fires and drought in the West, massive rain fall in Puerto Rico, and today in Florida only worsen at the planet warms.

But clean energy and new technologies provide an opportunity to produce abundant, clean, affordable, and reliable energy for people across the globe. And the United States should be at the forefront of shaping that better energy future.

In the 117 Congress, as was mentioned, we've taken some critical steps to securing that better future. Last year we passed the bipartisan Infrastructure Investment and Jobs Act. The bill provides billions of dollars in new climate investments, including \$28 billion in grid infrastructure, resiliency, and reliability, \$47 billion to help communities build communities climate resilience, and \$27 billion for research, development, demonstration, and commercialization of key energy technologies like carbon capture, advanced nuclear and geothermo.

And this summer we passed an historic Inflation Reduction Act, including the largest investment in climate action in American history. The bill provides massive tax incentives for clean energy, creates a new \$27 billion climate bank to leverage public money to drive increased private investments, and drives down mapping emissions to a methane feed, and \$1.5 billion for monitoring and reducing methane pollution.

Congress has taken this historic action and put us on a real path to reducing greenhouse emissions by 40 percent by 2030. But our work has only just begun. First, our legislative work isn't even finished. In the immediate future the massive climate investments Congress has provided have to be complimented by targeted reforms to accelerate the permitting process for clean energy, especially for interstate electric transmission projects.

We released an analysis released by Princeton University this week found that if we fail to increase, to build clean energy transmission at a faster face, over 80 percent of the climate benefits from the Inflation Reduction Act may not occur. And alarmingly, the analysis found that coal and gas consumption could increase if we fail to build transmissions faster due to increased electricity demand and our inability to build renewable energy quickly enough.

We need professional action to build these lines faster. That means passing meaningful permitting reform. And if we fail to do so we will lose most of the benefits of the Inflation Reduction Act. Simply put, we can't pick and choose which roadblocks to building a clean energy economy we want to address, we must address them all. And by the way I'm fully aware of the things you will hear from your locals about this very important project. But it's what we have to do to meet this challenge.

And even with the benefits of the Inflation Reduction Act we have to rapidly reduce emissions in transportation, industrial mining sectors, we have to drive down omissions overseas since climate change is a global challenge. We have to double down on climate resilience as extreme weather is likely to worsen even as we make progress reducing emissions.

One more bill I'll call to your attention is the National Climate Adaptation and Resilience Strategy Act I've dropped with Chris Coons in the Senate to develop a national plan to prepare for climate disasters. We've also got the Fair Transition and Competition Act to reduce global emissions in global trading. And for those of you in California, particularly the Save our Sequoia's Act to protect our iconic giant Sequoias from extreme fire and to further sound forest management.

All that's on Congress' plate. Outside of Congress we have to ensure that the Federal climate investments are being implemented efficiently and effectively. So we'll need revamped, motivated and skilled workforce to help drive the transition. We need land managers to restore our forests and reduce the severity of wildfires. We need electricians and skilled contractors to electrify our buildings. We need construction workers and grid operators to help triple the size of our electric grid and ensure its reliability.

So it's an exciting time to be entering the workforce or changing careers to help build the clean energy economy. And pretty much everything in this green field will have a role to play. So we need climate leaders everywhere. And as always, states and localities will be essential. And that's why Brookings's latest work on climate planning in cities is really important.

We know that the administration will be creating a number of grant programs to implement the bills we've passed on energy efficiency, electrification, clean energy, resilience, adaptation, and more. I'm going to suggest that each of you look at your own plans for climate action and think about

where you might need Federal help. Then states and cities need to have their plans ready to go so that money can go to the highest impact projects.

I know something about the challenges you face, as was mentioned. I was the City Council President in San Diego and the Port Commission Chairman before I came to Congress. And I understand that the challenges of dealing with climate change will present budgetary and planning issues for localities in particular.

In San Diego our Mayor Todd Gloria recently appointed his first Chief Sustainability Officer who is going to oversee climate action planning and response. The city also has a Climate Adaptation Resiliency Plan to prepare for and recover from climate disasters. Those are great tools, really proud of my city for doing that. But implementation is going to cost money. And if we work together the Federal government should be able to support you.

As I said, those grant programs aren't set up yet, and won't be for a little while. So be in touch with your members of Congress, to your Senators, and Brookings, frankly, to make sure that the programs and the distribution of funds align with your needs and your goals.

Local governments that present and paint a clear picture of the clean economy they want to build and can clearly show how new funding will help them deliver that in the future will be in a better position to secure Federal funding. I'm excited to capitalize on the energy opportunities before us to build a cleaner and more equitable economy for all Americans.

Thanks to Brookings for your leadership here, and to all of you for inviting me to join. I look forward to working together with all of you for a clean and prosperous future for our children and our grandchildren.

Good luck today, and thanks again.

MR. KANE: All right. Well thanks to Congressman Peters for those remarks and helping frame this timely issue. And thanks to all of you here in person in our studio, and then all those who are tuning in on the webcast for today's event.

As Adie mentioned, my name is Joe Kane, I'm a Fellow at the Brookings Metro Program, and along with my co-authors, Adie Tomer, Caroline George and John Jamal Russel Black, we just

released a new report that sets the stage for our discussion, how local leaders can reduce greenhouse gas emissions or decarbonize to build environment faster all across the country.

The short take away is many cities aren't ready. One of the first steps cities have taken is the drafting of climate action plans. Many of which aim to hit specific GHG reductions. We systematically analyzed 50 different city plans to better understand these gaps around planning and implementation.

Yet even as these plans proliferate, cities are struggling to reach their targets. One overarching challenge is internal where cities often fail to specify detailed strategies and actions. The other challenge is regional. Individual cities do not have the fiscal, technical, and programmatic capacity to singlehandedly drive action across their metro regions.

You can find the full report publicly available on the Brookings website, including several new visuals, data points, and local case studies. But I'm going to spend a few minutes describing what drove us to do this report, explore our findings, and lay out some potential strategies that local leaders can take to drive faster action, especially amid historic Federal investment.

So to start I think it's important to stress why we and many others are focusing on this work, the urgency of climate change. For too long the U.S. has failed to take action and is enduring huge costs as a result. Floods, fires, droughts, and more. And these impacts are not felt evenly, with lower income households and communities of color often bearing the highest costs.

Our report emphasizes what's fueling many of these risks, GHG emissions. These heat-trapping gases are evidence in how we move goods, generate electricity, and live and travel each day. A business-as-usual approach, marked by fossil fuel use and unstainable built-in environment will not be enough to support wide-spread decarbonization. But as we just heard, there is a generational opportunity to accelerate action given an influx of Federal funding.

The passage of several landmark pieces of legislation, including the Infrastructure Investment and Jobs Act, the CHIPS and Science Act, and the Inflation Reduction Act offer hundreds of billions of dollars in support of new building improvements, new electric vehicle charging stations and many other projects. This is a generational moment to address our climate challenges.

The promise for new climate investment though is no guarantee that all people and places will benefit. While Federal leaders are charting a new direction and are looking to steer several programs in support of more action, there are ultimately several shared responsibilities at a Federal, state, and local level in implementing this funding. All the national attention on Washington can overlook the hard work that needs to happen on the ground.

And a lot of this work needs to happen across regions. From urban to suburban jurisdictions there's a huge amount of responsibility here whether to build or individually regulate. Cities, for instance, generate roughly 70 percent of GHG emissions and are the centers for our greatest climate challenges. Whether it's emissions from transportation, buildings, or generating electricity, there are many sources found in these areas and many competing responsibilities to address them.

Decarbonizing the build-in environment is scientifically challenging, and our government structures only add to the complexity. Simply put, cities cannot do this alone. The enormous geographic scale and variety of infrastructure systems in need of upgrades is a multi-faceted challenge that traverses the public and private sector. The net result is a haphazard approach to reducing emissions, poor outcomes, and no clear voice to suggest how to improve the process of managing all these impacts.

Even amid this complex environment, you know, cities are trying. One of the most common is the emissions pledge, often led by able elected leaders. Cities are willing to promise the public and markets that they'll reduce their emissions to a certain level by some future year.

Cities are also launching new climate plans. There are literally thousands of plans across different cities, and dozens within individual cities evolving independently over time. In many cities and individual jurisdictions decarbonization planning takes place through updates of sustainability plans, departmental plans, or as we'll look at today, stand-alone climate action plans.

The problem is not a lack of pledges and plans, the problem is that leaders are struggling to move beyond pledges and plans which do not guarantee outcomes by themselves. Cities are jumping from pledges to outcomes and skimming this crucial implementation phase. The first step of bridging that gap is writing a plan that centers pragmatic and accountable implementation. That involves setting clear targets, outlining strategies backed by data and funding, and executing those strategies to achieve

outcomes.

So what's holding them back, where are the gaps to city action, how and when should this action even occur? We dove into this implementation phase studying exactly what's happening in different places to find patterns of success and disappointment. We interviewed city leaders and analyzed the single most comprehensive decarbonization plan across 50 of the country's largest cities.

While there is no single plan to rule them all, our aim was to consistently analyze the document that focuses on implementing a comprehensive set of decarbonization pathways across multiple built-in environment sectors.

We then consistently evaluated the level of detail in these plans, using 25 different criteria across five different categories. These included the overarching plan goal and how well it is defined and measured, the plan sector strategies, the plans ownership, including how well defined the lead actors and implementers are, the funding sources and financing approaches identified to support the plan. Last but not least, whether issues of equity are imbedded throughout. While many analyses looked to measure climate emissions, we effectively measured climate governance.

This process allowed us to come up with a standardized set of results in each city. You know, what we found is eye-opening. From one perspective, you know, we were discouraged. No city's plan is perfect and there were collective gaps within every category. But at the same time there is reason for optimism. When you review so many plans at once it becomes easy to find promising examples.

To start, you know, one of the most glaring gaps is a lack of detail on funding and financing. Only eight of the 50 plans, or about 16 percent, are detailed when describing funding considerations, identifying funding sources, or even developing cost estimates for different strategies and actions. In other words, cities do not usually have the money to execute on their plans. And while the infusion of new Federal funding from the Infrastructure Law, the IRA, and other legislation will help in some cases, there still is a lack of predictable support for all the work that needs to happen over the coming decades. But there are positives too, which show how cities can generate more predictable funding and financing.

The climates marked San Jose Plan includes a getting it done section, which dives into

implementation details, including funding. The plan estimates the financial costs and benefits of every strategy it proposes through 2050 and inventories the funding mechanisms available to meet them.

Another prominent gap was around equity and environmental justice. While most cities emphasize the importance of equity as a key goal, few, only 14 of the 50 plans, or 28 percent, spell out detailed actions to deliver it. They frequently lack details when defining equity, measuring it, engaging community stakeholders and ultimately embedding it into different strategies and actions. However, just as with funding and financing, some plans offer a guide for other cities to learn from.

The Detroit Sustainability Action Agenda embeds equity throughout. The plan weaves results from community engagement into its goals and strategies and uses equity focused metrics to track progress.

The same kind of shortfalls are evident in other categories we analyzed, which you can find spelled out more fully in the report. When it comes to the overarching plan goal, nearly every plan had clear targets, such as being carbon neutral by 2040, but only about a third had detailed benchmarks in reporting. When it comes to sector strategies around reducing emissions from buildings, transportation, and electricity, only 28 percent of plans were detailed when described these. Finally, when it comes to the plan's ownership or defining who exactly is responsible to oversee all these strategies, a little more than half are detailed when identifying lead implementers and partners.

You know, clearly cities play a central role in the country's decarbonization efforts. But this analysis reveals very few cities are planning everything well or moving towards faster implementation. A few common patterns emerge from our analysis. City leaders are developing climate strategies but are struggling to move past eternal planning. If a basic measure of progress is whether a decarbonization plan is written at all, then many cities are succeeding. However, realizing sustained GHG emission reductions and evaluating progress requires committed leadership, sustained technical and programmatic resources, and ongoing community buy-in.

Again, city leaders need help securing enough fiscal resources to pay for decarbonization programs. The few plans that do consistently acknowledge these needs often do so in a limited way, either for a single strategy or for a limited and uncertain duration. And Federal funding, while helpful, is

not infinite.

Fragmentation across multiple dimensions limits city efforts. Decarbonizing the built-in environment cuts across many different sectors and thus involves many different actors. These efforts also cut across many different geographies. From individual buildings to entire neighborhoods and service areas, to other jurisdictions and regions.

So as I mentioned briefly before, cities cannot go it alone. Many cities are not developing detailed enough plans but planning for the sake of planning is not good enough either. It needs to feed into a clear set of actionable and accountable steps to drive decarbonization. Our analysis shows that no city is perfect in this planning phase but there are cities beginning to figure it out, relying on updated data, establishing interdepartmental collaborations, testing new funding sources, and imbedding equity in different strategies. In cross-jurisdictional coordination in particular, holds promise in creating greater scale and consistency to such efforts.

City leaders first need to understand their starting point by conducting an honest assessment of their current capacity to decarbonization. Too often they can set seemingly arbitrary and unattainable goals with few programs, staff, or other resources in place. However, an assessment of where current plans fall short, as our analysis demonstrates, can reveal outstanding gaps, pave the way towards actual strategies, and equip leaders with the knowledge they need to execute on different goals. Leaders need to ask themselves, do current plans have detailed data collection and reporting mechanisms in place to gauge progress? Do they identify detailed and quantifiable sector strategies? If plans lack these and other details that should serve as a signal to leaders that they have room to improve their current approaches.

At the same time, regional efforts can help different jurisdictions communicate, learn, and test new approaches rather than continually struggling to remake the wheel on their own. Standardizing data collection and measurement is one-way cities and regions can further boost their ability to act. Pooling resources at the regional scale through metropolitan planning organizations for example, can help localities take advantage of the decarbonization field's rapidly evolving best practices and minimize the limitations associated with many smaller municipal budgets around data.

The San Diego Association of Governments, or SANDAG, an MPO representing San Diego County and its 18 incorporated cities, leads two such efforts. The Regional Climate Action Planning Framework, or RECAP, project includes a technical report with guidance on data sources, the GHG emission inventories and more. In addition, SANDAG's Roadmap Program provides no-cost technical assistance and climate planning services, including added capacity to member jurisdictions.

These two recommendations and several others we lay out in the report form a six-part plan that any city or regional entity could use to self-evaluate current efforts and move toward faster climate action. Leaders need to boost their internal capacity by identifying the gaps in current plans, but they also need to collaborate with other leaders, particularly at a regional level, on strategies and actions they cannot do on their own. Boosting technical and programmatic financial and staffing capacity can add more teeth to existing plans and help leaders drive more widespread implementation.

There is so much promise in America when it comes to climate action. Cities and regions want to do things, they are striving for more sustainable and accessible transportation, they are encouraging denser development patterns, they are investing in renewable energy. And they are ultimately supporting people and places in more climate friendly ways. But we can't leave climate action up to chance. City and regional leaders must harness the collective energy and opportunities to enact durable, thorough plans in service of greater action. We know we can do this; the evidence is there. We just need that extra push to chart a more sustainable course. And all the better if we can do so amid historic Federal investment.

So I know that was a lot, a lot of information. And I'd like to transition to our panel discussion to help unpack it. So I'm excited for my two fellow panelists to join me here on stage.

Great. And as we're transitioning to this, I'd like to remind all of you, especially our viewers online, that they can Tweet their questions to AtBrookingsMetro or use the hashtag CityClimatePlanning to answer their questions.

So again I'm honored to have two city leaders join us today to share their thoughts and experiences on these climate planning and implementation issues. To my immediate left is Lucia Athens, Lucia, I knew I'd get it wrong. The Chief Sustainability Officer for the City of Austin, Austin's first Chief

Sustainability Officer I might add. She has spent more than 20 years working on and writing about urban sustainability in a variety of roles, not just in Austin, but also in Seattle. And she recently or is about to come out with a new book "The Sustainability Revolutionists, Heroes and Hope for our Planet's Future."

To her left is Saleem Chapman, the Chief Resilience Officer for the City of Philadelphia. And similar to Lucia, he is his city's first Chief Resilience Officer. He also brings many years of experience in this space, including formerly serving as Philadelphia's Deputy Director of the Office of Sustainability, and helping lead the Sustainable Business Network of Greater Philadelphia.

So Lucia and Saleem, thanks so much for being here. You know, to kick things off, as we've been covering today so far. We know climate planning and action covers so many issues, from transportation to electricity, to buildings. It also varies widely across different cities and even within cities.

What are some of the major challenges you have been focusing on in your work. Maybe we'll start with you Lucia.

MS. ATHENS: Thank you. And thank you so much for the opportunity to be here with you today. There are so many challenges, we could probably spend an entire hour just on that. But my perspective is both from the City of Austin where I am currently Chief Sustainability Officer, but previously with the City of Seattle where I led their Green Building Initiative for 10 years for Seattle City Government.

Being in the State of Texas, I probably don't even really need to say it, but it brings many political challenges. Although both Seattle and Austin were often described as blueberries in the tomato soup of their state. Although I think the Washington government is, these days, very, very progressive.

So being in an oil and gas state and working on climate change is a significant challenge when we want to talk about things like decarbonizing buildings, that is not a particularly popular topic at the state political level and I could tell you a bit more about when we were adopting our climate plan last year, the natural gas industry got fairly organized across the entire United States and was successful in the passage of multiple state bills that preempted us from preventing anybody from hooking up to a gas line if there was a gas line that already existed. So that significantly, that's a significant challenge for our ability to achieve net zero carbon buildings. We also are in a very car-oriented, sprawly, large state where it takes a lot of time to get between points. So getting people out of their cars is a big challenge.

It's also a state with, you know, a lot of heat, so getting people out of their cars in the summer when it's 100 degrees is a challenge. So there's cultural and behavioral challenges.

But I would just say the flip side is, you know, we're a fast-growing city in a state with a lot of growth, so there are a lot of resources we can leverage. All the development means as the new development's coming, you know, we can lower the carbon footprint of that development and kind of think creatively how to do that. Both Seattle and Austin, we were actually two of the first cities to adopt a formal Green Building Policy, which piggybacked on the U.S. Green Building Council lead tool.

So all of that growth has challenges, and then our carbon footprint's going up and lots of people are moving to our state and they're wanting to get in their cars and drive. But some of them are coming to new jobs, you know, with Tesla. So, you know, there's two sides to the coin of the challenges and the opportunities I'd say.

MR. KANE: We've got a lot to unpack even from that. So, you know, Saleem, right, I mean probably some similar challenges as Lucia was describing, probably some differences too, right, in Philadelphia on the East Coast. You know, we'll get into some of the state issues later but curious, you know, from your work, right, and what you're leading in Philadelphia at the moment.

You know, what are some of the major challenges you're seeing and priorities you're hoping to address?

MR. CHAPMAN: Well in terms of priorities, you know, like many cities, Philadelphia is trying to make strides to reduce emissions from our building and transportation sector. Those two sectors make up 98 percent of our carbon footprint, with buildings accounting for 70 percent of that number.

And so it makes me excited that we're nearing the first year of implementation of Philadelphia's Building Energy Performance Policy, which is going to require our largest buildings to do routine inspections and tune-ups to improve energy efficiency.

But in light of that progress, Philadelphia's also a very poor city. We have a lot of challenges. And so even as we're making progress on reducing exposure to mid to longer-term risks, our community, our residents are already experiencing the impacts of climate change in the form of more intensive and frequent heat, storms, and flooding. And just two recent tropical storms that we had in 2020

and 2021 has given us troublesome insights into a future where climate and environmental injustices continue unresolved.

And so a lot of the things I spend my time thinking about is how do we reduce climate vulnerability as part of a broader framework for rectifying current and historical economic, environmental and social injustice.

MR. KANE: Well said. And, you know, kind of feeds in well to sort of my next question of, you know, the new analysis that we did, you know, stresses the importance of climate planning. But also not planning for planning's sake. You know, while some cities have only recently developed climate plans, some have been doing this for decades, are on the fourth or fifth version of their caps, and maybe experiencing, you know, planning fatigue, quite honestly. We have heard that having clear implemental priorities is key to accelerate action, as you were just both describing.

You know, what are some of the implementable priorities you are emphasizing in your work? I mean how are you defining them, and how are you measuring them and holding yourselves accountable. Maybe, Saleem, we'll start with you since you were already getting into some of the framework you were just describing.

MR. CHAPMAN: Sure. Yeah, no, I think planning fatigue is real, right? Particularly at a time when the far-reaching impacts of the climate crisis are becoming more clear every day. And so when I start to think about implementation I start with, you know, what is the climate crisis asking of us and what outcome should we be seeking in that context?

And so the climate crisis is really challenging us to rethink every aspect about how our society functions. And so with that it's given us the opportunity to move towards something that closely resembles our stated ideals. And in that context, you know, planning is going to have limited utility, right? So actualizing a reality that has never existed, actualizing a reality that's never been fully imagined, that requires trial and error. That requires experimentation.

And so in Philadelphia we use place-based initiatives as a vehicle for what I term demonstrative practice. And so our working thesis is that climate vulnerability is driven predominately by race, class, and place. And so how that looks across different communities is going to vary. And so

when we embed ourselves in a particular place, we can understand how it's materializing there. And then to sort of develop solutions that are really informed by a community's history, its present conditions, and its self-defined vision for a resilient future.

And sort of the benefit of that from sustainability offices is that it allows us to scale our investment because it gives us the opportunity to sort of do novel collaborations with other areas of government as well as our civic community.

But I think that the biggest value in this in using that approach is that it makes the impossible seem tangible. Which is particularly important when you're talking about communities who don't articulate their day to day living experience in the language that we use when we talk about environment and sustainability.

And so I often say, you know, I can tell you what I may do, or I can show you what we can do, and I like to choose the latter.

MR. KANE: Well said. And people based, place based, you know, demonstrating, actually showing what you're doing versus just saying what you're going to do obviously is this huge difference.

You know, Lucia, same question for you.

MS. ATHENS: Yes, absolutely. I think that I appreciated what you said that was a part of the report that you guys just finished about cities can't do it alone. It's absolutely true. I think, you know, we're kind of trying to evolve from a place where everybody thinks government's going to solve everything for us, and I think we're increasingly recognizing that just isn't possible. Government can lead the way, it can, you know, kind of create a wake for others to follow, but at the same time we absolutely know we have to partner with the corporate sector, with NGOs, community organizations across the board.

So I wanted to emphasize that point in talking about the targets in our plan because I think that many of these climate plans are very aspirational. They have set very aggressive targets, and do we absolutely know that we can get there and when? We're taking a guess, to be honest, that we can do it. But we need the aspiration to drive us, right? And so even to know that we're not meeting every

target on time, I think that's okay. Because people don't like to fail. And I think that's one of the reasons lead was possible because there was a score card, and you could win. And you could get the most points. You know I think that same mentality and psychology helps drive us with our climate planning process, that we want to know that we're succeeding in as many areas as possible so if we don't succeed, we'll probably get some additional resources in our next budget round.

We have a couple of things in our climate plan that are not assigned to anybody currently, but we know they need work. And those would include things like what we call fugitive emissions, which come from the semiconductor industry. It's not a huge part of our carbon footprint but we have a lot of semiconductor manufacturing in Austin, we know something needs to be done about it. Those organizations are meeting federal targets, but they still have fugitive emissions being released as a part of their manufacturing process. I don't have a funding source to work on that but it's in the climate plan.

The other one would be refrigerants that escape from all different kinds of air conditioning, and especially large scale refrigeration like grocery stores. Once again, I don't have a refrigerant utility but we know work needs to be done there.

So those are just a couple of quick examples of areas that are in our plan that we don't actually have right now in our hands the specific steps for how to get to those targets. Many others that are more within government control, we have very specific action plans, and we have funding in place, and they are pretty easy to track.

So a couple of those I'll just mention. We are lucky enough to own our electric utility in Austin, it was the same in Seattle. Many cities don't own their electric utilities so that resource is amazing. We have a generation plan that is targeting completely carbon neutral electricity to be delivered to our customers by 2035, we're on track with massive wind and solar investments to meet that.

Our city plan targets 2040 to be a carbon neutral city. We know that in the end we'll have to buy offsets to ever reach that, otherwise we'd have to stop life as we know it. But we'll get as far as we can by reducing emissions and then make up the difference hopefully at the end of the day by purchasing targets.

Our plan has a 50 percent vehicle miles traveled reduction, that has to be estimated. You can't measure it directly so there are calculations that have to be done for us to track how we're doing there.

The overall carbon footprint we collaborate through something called the Carbon Disclosure Project, which has very specific protocols for how to track and measure our local and regional and county wide emissions as well as city emissions.

We also have a goal, once we get to the 50 percent vehicle miles reduced, out of those miles we want 40 percent to be achieved by driving electric vehicles. And there's a lot happening in the electric vehicle space and quite a bit in the new Federal funding that's available.

And then finally, we've been working on, you know, things that reduce our carbon footprint for a long time, before we had a climate plan. And we were lucky enough to have voters approve a tax measure in 2020 which is building out 27 miles of new rail lines and 31 stations and 42 new miles of bus rapid transit with 65 stations there. So very tangible things that we're building out and we'll be able to measure progress. Of course we have to get people to, you know, ride the trains and the busses, as I mentioned before, get them out of their cars.

MR. KANE: That's amazing. That's a lot, right, and clearly, you know, the limitation of what we've done, right, I mean plans are not going to capture absolutely everything, right? And so it's, you know, hearing I think the experiences that both of you are leading and have led over many years, right, feed into the plans, right? And the plans are partially a reflection, but not a complete reflection, right, of everything you're doing.

One point that I wanted to touch on specifically that I know we've talked about and came up in many of actually our interviews, you know, because there's so much on your plate, because there are so many shared responsibilities within cities, even beyond cities, you know, coordination is extremely important, you know, within the jurisdiction, across different jurisdictions, this idea that we've talked about on regions playing an important role here, to say nothing of the coordination that needs to happen with states on these issues, Federal agencies as there is this new funding.

So, you know, how are you, you know, collaborating with these entities, you know, what

has gone well, what isn't going well? Where do you see, you know, opportunities, hopefully, moving forward here, especially with some of this Federal funding?

And I think I'll start with you, Lucia, on this one.

MS. ATHENS: Okay, sure. Well Saleem and I were talking earlier about we participate in something called the Urban Sustainability Directors' Network, which is across North America. We also are part of something called Climate Mayors, over 500 mayors have signed on to the pledge as part of Climate Mayors. And also C40, which is a global initiative and collaboration of mayors across the world whose cities are working on climate change.

I think we really need more help, and I'm excited about more Federal funding being able to hopefully flow to smaller and more rural communities is that it is a challenge for us to do climate planning and action collaboration at the county and multi-county and, you know, regional government level. And part of the reason for that, and this is something our council has been asking us to do for a while, but part of the challenge is there are no sustainability officers in those cities. There is no staff for us to collaborate with, or if there is there's one person who has every environmental program and climate program and sustainability and resilience and they're supposed to be doing all of it.

So it makes it very difficult to do that level of collaboration. So I really, I mean I'm excited about new funding coming to us as a city, but I'm actually more excited about some of the rural communities having access to new funding sources to do some of this work. And also communities that don't own their electric utility, as I mentioned, which, you know, does provide us significant funding for some of the work that we're doing.

I mean the governance piece at the state level is tricky for us. So we are in the process of doing an analysis of the Infrastructure Act to determine which of those programs, and there are many, have a gatekeeper at the state level. And so the ones that have a gatekeeper at the state level are a little bit less attractive to me to spend a lot of time working on because there's a chance that I'll never get to see that money, especially the ones, as I mentioned, that are kind of focused on things like carbon neutral buildings.

So some of the other ones that are there, you know, we can access more directly. But

the state governance issue is real. It's not negative across the board though. I mean our state government and our Texas Highway Department was able to access \$408 million of Federal funding through the Infrastructure Act for electric vehicle infrastructure. And I was delighted to hear recently they're made a commitment to have electric vehicle charging stations every 50 miles on every state highway in the State of Texas. So that tells you that, you know, the state is going to be providing leadership on some of these things.

MR. KANE: Yeah. And I mean, right, the challenges in both infrastructure ownership and operation can vary, right, depending on whether you're talking utilities, local governments, state governments, you know, they're certain red/ blue divides here partially as well.

You know, Saleem, Philadelphia being in Pennsylvania, you know, there are probably some similar challenges around coordination, to say nothing of, you know, both the good coordination too, right, that that's happened in the city. You know, curious what your thoughts are on this.

MR. CHAPMAN: Well, you know, Lucia mentioned sort of the importance of sort of these peer networks where sustainable professionals could sort of come together. And it's really sort of so we can be envious of our peers because, you know, I'm envious of having, you know, a city that sort of owns their electric utility because you're rowing in the same direction in some ways.

Philadelphia, we own our natural gas utility, which, you know, sometimes we're in alignment, sometimes the goals are competing against one another within the state that is a natural gas state. And, you know, the politics of Pennsylvania are interesting because there's so much diversity in the state given how big it is and sort of where Philadelphia sits in that.

And so, you know, what I think what I often try to sort of thing about is is that where other areas we can sort of make progress. A lot of that has been around housing particularly, and really thinking about sort of how we come at sort of making homes more resilient using a holistic approach to actually sort of addresses deferred maintenance as well. And then we were talking about sort of larger infrastructure. You know, there's the redevelopment of '95, which actually cuts through the city and directly adjacent to it in some places as well. And so the level of investment that that's making is bringing together a lot of different players and stakeholders who really think about sort of how we make

infrastructure investment differently. And so that's been all positive.

MR. KANE: That's terrific. And I know I want to get to Q&A, be sure we have time for that. I'm going to kind of fold these last couple questions that I wanted to ask. But I want to be sure, you know, while we're on this topic of who, right, not just, you know, who is responsible for leading planning and action, but crucially who all this is affecting, right? It can be easy to focus on new plans and other shiny new infrastructure projects, charging stations for instance. But overlook the importance of climate equity, right, as we found for many cities in our analysis. And we know for too long too many people have been bearing these costs, right, with really little recognition.

You know, Saleem, to start with you because I mean I know this has been a big part of your work in Philadelphia, and Lucia I know is literally Boston's plan is called the Climate Equity Plan. You know, how are you centering equity in your climate plans and actions?

MR. CHAPMAN: Well, you know, I'll start by answering that question, if you'll indulge me and allow me to sort of reframe your lead in a little bit. And to say, you know, I think that as a local government practitioners, you know, our responsibility isn't to lead climate planning and action, it's to be stewards of it.

And that's very relevant to sort of the equity conversation because oftentimes when we talk about equity we think a lot about sort of distributional aspects of it so, you know, who has harms, who has benefits. But there's other pieces too, right? So it's a structural piece to really think about sort of what's underpinning our status quo as well as thinking about sort of procedural aspects and who has exercise power and influence traditionally in governance.

And so one of the ways that we've tried to address that in Philadelphia is two ways. One, we established an Environmental Justice Advisory Commission and, you know, there's other cities that have this, but I think what was really interesting about our model is that it was completely externally created.

So we brought in an external body of residents who decided sort of what the body should look like in terms of configuration, in terms of how many seats, what voices needed to be represented, how we would go about getting those voices to the table. And I think that that was sort of a model of

governance to really sort of think differently about how we can sort of influence change. Because the reality is is that we're late to the game, right? Communities have been pushing back against environmental harms for decades and generations, and so we have a lot to learn. And so that was for recognition of that.

And then the last thing that I'll mention is is that we're resourcing communities, as I said before, to self-define their vision for a resilient future. And the way in which we're doing that is actually doing direct investments into communities. So we established a Community Resilience and Environment Justice Grant Fund where residents can sort of apply to actually sort of get resources to do things that will sort of advance equitable outcomes in our communities.

MR. KANE: Empowering individuals not just like leading from the top, from the bottom up. Lucia.

MS. ATHENS: I love hearing about what you're doing there in your city and looking forward to keeping in touch with you closer after this and trading notes.

One thing I was thinking about when I actually knew this topic was going to come up today is the fact that some of the recent court cases, you know, are challenging cities' ability to use race as a determining factor for, you know, awarding funds. And we are still in the process of really at the city level in Austin, trying to figure out how to navigate that and to, you know, avoid some of these legal risks. So that is a challenge, to be sure. Hopefully some of these things will be overturned.

But I'm excited about the way equity is showing up in our plan. And I don't know when we've had a more challenging process upgrading a plan because our plan was truly co-created with the community. And I loved hearing what you said, Saleem, about, you know, letting the community decide how a certain body was going to be constituted.

Typically when we create plans in municipal government, we either hire a consultant to create a plan or staff creates a plan and then we put it out for public comment. Sometimes we take the public comment seriously and sometimes we don't. And we check a box and say that, you know, we asked people what they thought.

We actually created a process where we co-created the plan with staff and community

members. So we had a steering committee composed of all external community members, very diverse group. Then we had a number of working groups that were blends of staff and people from the community. It was not easy, you know, the whole issue of who gets to make decisions. We had some dustups over final language that went into plan and, you know, in the end, to be perfectly honest, some of what people wanted to say in there did get overruled because it still was a city plan being created and delivered with city resources. So it's not always a bright line and that can be challenging to navigate.

I did want to mention another program that we created that we're now in Phase 2 of that we called the Climate Ambassadors. And that was kind of birthed out of knowing that we often hear from the same people over and over again at City Hall. And many of the people we're trying now to be more sensitive to and to serve are working two and three jobs. They're never going to show up at a community meeting, they're very busy. So we actually hired 12 people of color to become small contractors to the city to go out into their communities, whether it's their school group, their church group, their neighborhood group, and bring back some intelligence to the city about what was on peoples' minds and what their concerns were and to give us some feedback. So that Ambassador Program is being picked up some other departments at the city now.

And then finally, the report mentioned jobs. So our council enacted an Austin Civilian Conservation Corp Initiative with Federal disaster recovery money, ARPA funding, American Rescue Plan Funding. Which launched our initiative to try to serve people who had been economically impacted by the pandemic and try to get them into a job skills training pipeline. And that's been really exciting, it's still in its fledgling stages but we're really excited about how that program can grow and expand and also link up with the Federal Green Jobs Initiatives.

MR. KANE: I have like several questions on that. I know we're already running against time, and I want to move to audience Q&A both in the room but also from the webcast and, you know, picking up on kind of some of these points we talked about, not just hearing from people but involving them, right, testing new programs, you know.

One interesting question that we received from actually the Sustainability and Resilience Director in the City of Tempe in Arizona is to I think this, you know, elephant in the room right now. Well

there's all this Federal funding, right, and we heard this from Congressman Peters at the top, right, that places that can demonstrate, right, an ability to sort of lead action, right, they're going to be more competitive to get some of this funding.

And I know both of you mentioned in passing, right, some of the funding that you were already receiving, maybe looking to get. You know, how are you looking at kind of, you know, not just this moment, right, of just like the next year or two but like using these next few years, right, to build that durability, you know, to your programs and where do you think some of those struggles are, right, in a sense, right, that we're all learning in some ways as we're doing.

Either of you feel free to --

MR. CHAPMAN: Yeah. You know, it's a learning curve for us to be quite honest. You know, our office hasn't really managed major Federal funding since the American Recovery and Reinvestment Act, which is over a decade old at this point. And so a lot of the institutional memory from that is long gone. And so in order to like really make sure that we have the capacity to do it is going to require a cultural shift, right? Because, you know, again, envious, you know, the landscape of our city doesn't necessarily allow us to make the same level of investment in environmental sustainability as you might see in a city like Austin. And so, you know, we're going to have to sort of advocate to make sure that we're able to sort of do the capacity building up front that allow us to be able to attract that funding. Which is going to be a cultural shift for the city in some ways.

And so I think that that's one that we are sort of eager to embrace. But I think the question's going to be is what does that look like in a sort of a sustainable sense, right? So once we get after this five-year or six-year period that the funding is sort of promised, are we going to be able to maintain momentum where that maybe wasn't the case in the past. That's still to be seen.

MS. ATHENS: I'll chime in. I think capacity building is key. And it's interesting because we started out when I came to the city 12 years ago it was just me. Now I've got 12 staff and some temporaries. Yet still to this day we have no dedicated budget, HR, or administrative staff. So for the first time in the next budget cycle starting October 1st, there's a new position to provide administrative support to a few offices.

We've cobbled together those needs with temporary staff or we've just piled it on the responsibilities of people who were already doing all of the other program delivery work.

So when you start talking about Federal funding and all the reporting requirements and all the administration required to, you know, utilize those funds, track it over time, do the reporting back, it's quite significant. So we really need to think about the capacity building internally for, you know, just how we actually can carry out some of these very ambitious programs, multi-year programs and not burn out our staff. Because the staff that tend to work in these initiatives, they're very passionate, they're very driven, they work very hard, and they can burn out. So we really need to think about how do we provide them the support and sustenance to keep them going so we can sustain their careers in government.

We have a Youth Climate Council that we've been working on with a local non-profit which is, you know, another way that we try to think about how do we establish the stream of, you know, new blood coming into this work, and particularly, you know, people of color. Because it's challenging at times for us to hire on people of color. A lot of people in the environment arena in the past have been, you know, mostly white. So if your applicant pool is all white it's difficult to hire a person of color.

I think the other piece really just in terms of longevity is it's exciting to be working on these plans that have such long-term goals, right? These are not just goals that are going to happen in a year. So we need to make sure we're electing elected officials who are going to carry forward on the commitments. We need to inform the new ones coming into office what the commitments are, give them the tools they need to understand them and their staff.

And, you know, I think that we're getting a few mechanisms in place right now which are helpful. We have a new mechanism so that every budget that's presented by the city manager has a highlight of the projects within that budget that are going to help us achieve our climate plan. We've never had that before. Before it was kind of a hunt and peck. And as you said, you know, in the report, you can't just go to our plan and find all of the funding mechanisms, you had to just kind of know where to look for them because they're across the board from CIP dollars, bonds, utility revenues which come in, you know, on an annual basis, tax revenues, grants, and now we're working on some new carbon credit programs. So there's a lot of different funding sources to get your arms around. So to kind of know

where all those things are, which is one of the things I've spent a lot a time on, knowing where they are and like who to go ask to get the information is really key.

So I think just the communications about all of it, to explain that all of these things are happening, all these different modalities, partners, and then not even beyond just the city partners alone, the external partners.

MR. KANE: Yep. So internal capacity building, right, finding beyond the next political sort of cycle, if you will, extremely important to make sure that there are those champions, right, ideally from the community to carry the torch, right, moving forward.

We're running towards the end. I wanted to be sure if there were any questions in the room.

FEMALE SPEAKER: Hello. First off thank you so much, this has been amazing. I had two questions, one for each of you.

In terms of Philadelphia, I was interested to hear more about how existing homes can become more sustainable. And then in terms of your work in Austin, I was interested to hear about how owning the electricity like utilities helps advance towards goals and provide funding for new initiatives and what those other initiatives might be allocated from that money.

MR. CHAPMAN: I'll try to be quick. So, you know, in Philadelphia we have a very old building stock. Our buildings are so old that we use a default year of 1925 because we can't understand how old they all are. And so with that, you know, and given sort of our socioeconomic conditions, there's a lot of deferred maintenance. And so what we try to do is is merge programs that already targeted towards lower income households that go in and do maintenance repairs and then integrate that with sort of an energy efficiency programming as well so then you're having full wrap around services so that when folks are going in and repairing the roof, they're actually going in and also doing weatherization and potentially installing heat pumps as well. Because what we found out when those two things were separate is that you had sort of the energy efficiency professions going in trying to put in weatherization and they're realizing that the windows completely need to be replaced and so that's sort of the tension that I think some of our new program is getting over.

MS. ATHENS: The other question. The electric utility, basically the governing board of our electric utility is our city council and mayor. So they set the policy goals and then it's up to the utility to fulfill those goals. So the carbon neutral goals, those are approved, you know, through our city council.

So our electric utility currently has, you know, all the kind of typical energy efficiency programs you might think of. We also have a very robust solar program, including a community solar program and a very, very exciting electric vehicle program. So, you know, electric utility, they make a lot of their decisions for economic reasons as well. I mean a lot of the renewable investments have been very smart investments from a financial standpoint. And the electric utility decided to get involved in EVs because that's a new customer sector for them.

MR. DEBIAN: Thank you. Hi, I'll make this as quick as I can. So I'm Ralph Debian, I'm with the U.S. Department of State. The reason I'm here is because we are reinvigorating some national diplomacy focused around urban sustainability around the world and we will be co-hosting with the Mayor of Denver at the City Summit of the Americas in April. We hope both your cities and others who are listening will be interested in attending.

We're also launching a new Cities Forward Initiative to address some of the challenges where we can create communities of practice across the Western Hemisphere. And we would love to talk to you about your expertise and also some of the challenges.

Yesterday I was in a discussion with the Executive Director of UN Habitat as a follow up to the World Urban Forum in Poland three months ago. And it's very interesting, she identified the exact same challenges you're facing as challenges she's hearing from mayors around the world in terms of looking at capacity issues, looking at capital issues, and looking at how we bring multi-stakeholders into the conversation.

So I don't know if this is a measure of solace but the challenges you're facing are universal. And so with that in mind I wanted to ask you specifically about in terms of finding solutions, what are you finding to be the economies of scale for focusing on either from a population standpoint, from kind of an infrastructure standpoint. Where is that area of kind of looking at the resources needed, creating the economies of scale in order to implement some of the changes and thinking through that in

terms of how we can use that also internationally to build partnerships between U.S. cities and international cities? Thank you.

MS. ATHENS: I'll just take a quick stab. One thought I'm having about that economies of scale question is you really have to attack it at all scales. And if you think about transportation, and I was talking about building out these new rail lines and bus rapid transit, you know, that's massive infrastructure investments that take years to mobilize. But we also have programs, back to the electric vehicles, that are specifically targeting affordable housing communities on the ground to get charging stations at their buildings, to get electric bike share at those buildings, and then do engagement with the residents to help educate them, encourage them to use these alternative means.

So I feel like those are completely different scales, but we can't just focus on the massive infrastructure investments and leave out the human factor. One of the pieces of research that Rocky Mountain Institute brought to my attention is the best time to change somebody's commuting habits is right after they move. Because once they establish what their commuting habits are, they're unlikely to change them. So we need to really be thinking about behavior as well as the big investments, from my perspective.

MR. CHAPMAN: Yeah. And I think we've tried to attack it by figuring out where major development and investment is happening. So that's happening a lot in sort of the southern portion of our city where our stadiums are, our airport is, our Navy Yard is, the oldest refinery formerly on the East Coast and it's being redeveloped into a logistics hub.

And so there's this unique opportunity to sort of bring all these partners together and reframe the narrative away from sort of a climate issue, and it's sort of an economic preservation strategy, right. So you're expanding the realm of stakeholders you're able to bring to the table and you're bringing in sort of new funding mechanisms that you wouldn't be able to previously.

MR. KANE: Yeah, thanks so much for the terrific questions. I wish we could ask even more but I think we're at past time now.

So, you know, Lucia, Saleem, thank you again so much for all your leadership and also just your time today. It's really appreciated.

And thanks to everyone who's here in person and on our webcast for tuning in. You know, I think this was a terrific conversation, you know, obviously a lot more work to do, a lot more work to talk about, and so really excited to continue the conversation.

Thanks.

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I, Carleton J. Anderson, III do hereby certify that the forgoing electronic file when originally transmitted was reduced to text at my direction; that said transcript is a true record of the proceedings therein referenced; that I am neither counsel for, related to, nor employed by any of the parties to the action in which these proceedings were taken; and, furthermore, that I am neither a relative or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

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