

*Marta Drzymala:* Hello and thank you for joining the webinar today. We're going to give folks another minute to log in. We'll be starting soon.

All right, let's get started. Hello everyone and welcome to the 2023-2024 Better Buildings Webinar Series, dedicated to bringing you the latest actionable insights from leading industry experts. This annual series is a chance to explore the topics, technologies and trends that affect your organization as well as efforts to accelerate decarbonization and energy efficiency adoption. Next slide please.

Today's webinar is called the Power of Partnership in Reducing Emissions. Before we dive in, there are just a few housekeeping items I'd like to cover. Please note today's webinar will be recorded and archived on the Better Buildings Solution Center. We will follow up when today's recording and slides are made available.

Next, attendees are in listen only mode, meaning your microphones are muted. However, if you experience any audio or visual issues throughout the webinar, please send a message in the Q&A box located on the bottom of your Zoom panel. Next slide please.

My name is Marta Drzymala, and I'm your moderator. I'm an ORISE Fellow in the Building Technologies Office, and I am working with our Better Building Partners across the healthcare and public sector. We have a lot of amazing content we're going to cover today, so let's jump right into the agenda.

Our main topic for today is to learn how your organization can level up stakeholder collaboration to accelerate emission reduction efforts. We'll start with introducing our speakers and getting to know our audience. And then we'll dive into key strategies for successful collaboration, and save plenty of time at the end for what I'm sure will be a phenomenal discussion about the content. Let's go to the next slide, and talk briefly about the partnership program that brought us all together.

So in just a moment, I'll be passing the virtual microphone to our speaker. But before we delve into the exciting presentations, I'd like to take a moment to provide a brief overview of Better Climate Challenge for those of you who might be new to this initiative from DOE.

So, first we ask our partners to set a portfolio-wide greenhouse

reduction goal encompassing both scope 1 and 2 of at least 50% in 10 years. Second we won't include offsets as a way to achieve the portfolio-wide reduction. The use of renewable energy through RECs and power purchase agreement is allowed, but we're just not considering offsets as part of the organization response to the 50% reduction. This rejection is about creating tangible change.

We're asking and encouraging organizations to establish a baseline of up to five years before the join date. And this is really to capitalize on actions that are happening now and actions that many of you have already begun. And also looks ahead to hit the ambitious goal of at least 50% in 10 years.

Four, we encourage our partners to set absolute targets. And this brings us to undeniable reality, that to achieve our carbon goal as a nation, doubling down on reducing energy waste is imperative. So therefore we're asking our partners to include an energy efficiency target as the first step to reach their greenhouse gas emission reduction goals.

This program is strategically designed to ensure that our partners understand the energy uses on the portfolio level and tackle the energy waste before managing the emission reduction.

And lastly, collaboration is at the core of what we do. We want partners to demonstrate pathways and share challenges and solutions and highlight innovations their organizations are implementing as they work toward decarbonizing buildings and plants.

This aspect is particularly significant for us here, because we need your insights to bridge the gap between aspiration and reality. And we need to understand where we might encounter obstacles, and how we can work collectively to overcome them. Next slide please.

So, for anyone who is not yet a partner, we want to encourage you to embark on this journey with Better Climate Challenge and drive market transformation with other leaders in the field. By participating, you become part of the community of leaders, actively sharing market solutions.

So, the opportunity here is for you to join in what we are considering the government platform that's working with like-minded organizations on portfolio-wide level to not only understand gas emissions reduction of utilities, but also share pathways to how to get there. So consider joining this journey as

you are reaching goals to, and collaborate and work toward a sustainable energy future together. Next slide please.

So let's jump right into the presentation. We know we have a lot of people on the line today, so we will be using an interactive platform for Q&A and polling. So please go to [slido.com](https://www.slido.com). You can do it either on your mobile device or by opening the link that my colleague just dropped a new browser. If you would like to ask panelists questions you can submit them right there throughout the presentation. We will be answering your questions near the end of the webinar.

So let's go, oh. Very important. You can thumb up icon for questions that you like, and this will result in the most popular questions moving up to the top of the queue. So we will get started with taking a poll to understand where is our audience coming from? Maybe if you could tell us exactly which sector you're calling from today, and let's get a look.

Local governments, 24%. We also have a lot of nonprofits and contractors and consultants. Some higher ed, multifamily. This is absolutely wonderful. Definitely the biggest representation from our local government sector. This is great for our panelists to know. Welcome everyone. Let's move on and introduce our speakers.

All right, we have a great lineup of presenters today. I am joined by my colleague, Tom Abram. Tom is a principal in Introba's Design Analytics practice, where he provides clients with data driven decarbonization strategies in his role as the Lawrence Berkeley National Laboratory Affiliate. Tom is Technical Account Manager for Better Climate Challenge partners in local government and other sectors. Tom also supports the development of program resources including the Department of Energy's framework for greenhouse gas emission reduction planning building portfolios.

Tom has experience on the owner's side managing university energy and sustainability programs, has taught environmental engineering courses at San Diego State University, and is on the Board of Directors of San Diego Green Building Council. Tom holds a BS in electrical engineering from the University of Illinois, Master's in sustainable design and construction from Stanford University, and is a licensed mechanical engineer in California.

We are also joined by Lindsey Hawes. Lindsey is a Municipal

Energy Program Manager at the City of San Diego Sustainability and Mobility Department. Lindsey and her team work closely with city staff, elected officials and public stakeholders to develop and implement strategic energy projects, policies and programs designed to push the city's municipal buildings and fleet towards the goal of zero emissions by 2035.

Lindsey's background is in the distributed energy resources, program design and implementation, classroom instruction, and project management. That's a valuable skill set that allows her to lead and effect change across a wide variety of initiatives. Lindsey has a Master's in environmental science and management from Bren School at UC Santa Barbara.

And we are also joined here with Kevin Smith. He is the Division Manager for Energy Program in the Office of Environmental and Energy Coordination for the County of Fairfax, Virginia. Kevin is a licensed mechanical engineer with over a decade of experience in the building, design and construction space. Before starting his current role in 2022, he worked as an energy engineer on new construction and existing building projects across a broad range of sectors and climate zones. He is passionate about continuous performance optimization and decarbonization of the built environment.

Thank you again for being with us today. And with that, I will hand it off to Tom to kick us off.

*Tom Abram:*

Great. Thank you so much, Marta. Pleasure to be here today and talk about decarbonizing together. Next.

So as the Technical Account Manager for the Better Climate Challenge, I provide a wide variety of services to our partners. There are several resources that are available to organizations that sign on to the Better Climate Challenge, and these resources are really an important part of this partnership between the DOE and the partner organizations, and are all available at no cost.

I'll talk through some of these resources for the next few minutes. One of these is a direct technical account, technical assistance to our partner organizations. You also have access to researchers within LBNL and they're available for discussions about some of these emerging technologies and their potential applications in building portfolios. And finally, participation in working groups and peer exchanges to be able to connect similar organizations, learn from others, and make sure that we're all supporting each

other through our decarbonization journeys. Next.

So an important element of the program is this direct technical assistance aspect. So each partner within the Better Climate Challenge is really in a different stage of their decarbonization journey. And as technical account managers, we look to identify what are the ways we can support our partners moving their decarbonization efforts forward wherever they might currently be in that journey. So we kind of bucket into three large areas. One is to review and provide feedback. Another is around resource sharing. And then finally on brainstorming identifying solutions. Next.

So in terms of the reviewing and providing feedback element, this is really looking at how can we provide some guidance, how can we provide another set of eyes around various documents and plans that are in development by our partner organizations. And providing some different perspectives and suggestions so that organizations can feel confident in moving forward on decarbonization efforts.

So some of the types of documents that we could review is decarbonization plans or emissions reduction plans. And again, for all of these, this can be a review not necessarily at the end of the final deliverable, but we can also provide support along the way.

Another potential avenue for support is around energy audits or decarbonization audits. Provide another set of eyes and review of those results. And then finally other types of documents. This could include RFPs, or scopes of work for different types of decarbonization plans, audits, or other sorts of offerings. Next.

Next up is resource sharing. So through these conversations with our partners, we identify are there opportunities for us to share examples of others in this space who have been successful in decarbonizing through various technologies, measures, approaches, try and find the case studies that are most relevant for the partner organizations. So, this really trying to find some of those resources that are most applicable. So not just the case studies but then also other types of resources, guides, et cetera, as well as providing emissions reduction technical guidance. So providing support while developing those emissions reduction plans and efforts. Next.

Next step, brainstorm and identify solutions. So this is a bit of a broad category, but it's really helping the partner organizations

identify what are the different solutions, what are the different ways that you can develop decarbonization projects or plans that can really move forward your efforts. So some of these topics, the big one is really looking at discussion potential for electrification, especially of heating systems within buildings. But certainly applies to all of the different emissions reduction technologies. Also, looking at how can we prioritize which buildings and measures can be utilized most effectively.

And then finally looking at how can we help you develop a portfolio level plan that really has the detail needed to be able to provide the confidence that the partner organizations will be able to achieve their emissions reduction targets aligned with the Better Climate Challenge. And this in particular, this is a really great opportunity bring in your colleagues across the organization. So we do have representatives of the new organizations that join us on these regular calls. But there's always an opportunity to bring in folks from other departments, from the facilities team or the finance team, to really drive these conversations and make sure that that partnership is being formed. Next please.

So in terms of the working groups and peer exchanges. Big element of this is really co-development of resources. So the Better Climate Challenge Technical Account Managers and other folks associated with the program work collaboratively with partner organizations to develop these resources that really help move decarbonization efforts forward, that help with standardizing or at least providing some guidance on some of these areas.

A big one that was developed as part of this program was the Emissions Reduction Planning Framework and workbook currently in development, as well as the Emissions Reduction Audit Checklist. It's also a really great opportunity to be able to share your successes, to share your challenges, with others on your decarb journey. So we certainly do have opportunities to collaborate within sectors, to identify kind of those shared challenges and develop solutions.

But one of the things I think is really nice about the program is there's an opportunity to really talk across sectors as well. And some organizations and certain sectors may have focused on areas already, and we could really learn from each other across those sectors. We also have kind of targeted opportunities to discuss the specific solutions such as efficiency, electrification, renewables, as well as emissions reduction planning.

And then finally, one of the really nice elements is through the conversation in these working groups, we can identify are there specific documents that organizations feel comfortable sharing amongst each other. So this could include scopes of work for emissions reduction plan, or emissions reduction audit. Being able to share and review deliverables and get ideas on how their own partner, own organizations can take advantage of some of these resources. Next.

So in the development of the emissions reduction planning framework, we had significant contributions from partner organizations. So we had over 40 commercial partners and allies in the Emissions Reduction Planning Working Group that helped us develop this resource. In bold is our local and state governments that helped contribute to this effort, so it really was a collaborative partnership. We appreciate everybody's effort in moving that forward. Next.

So we'll do a quick overview of a few of these resources, and there will be links that you can access them at your own pace. So one of these elements again as I mentioned, the Framework for Emissions Reduction Planning, has five milestones. So it really looks at starting from the beginning of milestone one where you're establishing your inventory, your scope of work. This is a really important time to make sure that you're engaging the stakeholders to identify who within and outside of your organization needs to be engaged, or can be engaged to help ensure that both the planning and the implementation is a success.

And then we work our way by looking at how do we categorize our portfolio, assess certain measures within that portfolio, develop different scenarios that may allow us to achieve our decarbonization goals. And then finally select that pathway and define it further before beginning with implementation. Next.

And why did we feel that the Emissions Reduction Planning Framework was needed? Well, we've had climate action plans for quite some time, or sustainability plans. These often are higher level, often looking at providing the context of the importance of greenhouse gas reductions, providing targets, goals, context, inventory. And so there's a lot of effort that goes into that. And often the solutions tend to be higher level. Obviously this varies across the different organizations. We also have building level emissions reduction audits, or energy audits that are really focused on individual buildings. Going in and doing a bit of a deep dive on how that particular building can reduce emissions. Next.

So, We did see that there is a bit of a gap in terms of making sure that that detail that is identified at the building level is carried forth to the climate action plan, and making sure that the context of a climate action plan is also being considered in these building level approaches. Next.

And that's kind of where the Portfolio Emission Reduction Plan comes in. It's making sure that you have the detail needed to be able to plan out your emissions reductions efforts while also having that portfolio level lens. Next.

So, when we think about it from a scaling perspective. And again this is looking at portfolios of multiple buildings. We're looking at the greenhouse gas inventory and targets, defining what are the characteristics within these buildings that really differentiate each other. Categorizing the portfolio. And so for organization, especially municipal government, that has all the buildings in one location, the differentiators between these buildings might be how the energy is being, what is the building use type? What are the HVAC systems, and to make sure that those are, those different solutions are being explored for each of those categories. We also look at diving in more of the building level for emissions reduction audits and assessments. And then finally, how do we scale those findings across the entire portfolio. Next.

The next resource is the Emissions Reduction Audit Checklist. So when we look at a traditional energy audit skip, next we tend to see that the focus is really on energy efficiency and load reduction. Which is a very critical element of emissions reduction efforts, but we wanted to make sure that there was some guidance that captured some of the other important areas as well. Next.

So this is where the Emissions Reduction Audit, or emissions reduction measures come into play. Next.

So with these audits, we capture some additional areas as well. So really an emphasis on building electrification and EV charging to make sure that those areas are being considered as well, comprehensively, and that the right types of solutions are being explored. Looking at refrigerant leakage as well, making sure we're selecting low or no GWP refrigerants. And finally, an emphasis on on-site renewable energy. Next.

So we did define for specific tasks within the Emissions Reduction Audit starting with data collection and target setting, really tying



back to the portfolio goals when available. On-site inspections, that analysis and reporting. And finally selecting and implementation of the measures by the owner, which this is a very important part, to make sure you've got those partnerships that people within the organization had a chance to review the audits and have that ownership and buy-in. Next.

And finally, there's a few additional resources that are in development for program partners. One is an Emissions Reduction Workbook. So this is really kind of a companion workbook for the ERP that our technical account managers will be using with the partners to help them move forward in developing an emissions reduction plan. Developing through the greenhouse gas emissions reduction working group the scope of work templates so that others can have a starting point for developing their audits and carrying proposals on those.

And then finally the Renewables Working Group is working on a solar PV guide update. So these resources are developed in collaboration with partners, including partners obviously being the end users for a lot of these resources, being reviewers, and then also piloting some of these endeavors to make sure that they are relevant and help advance decarbonization efforts overall.

Again, this has been a fantastic program to be a part of, and I hope that others consider joining. I'll pass it back to Marta.

*Marta Drzymala:* Next slide please. And now we will hear from Lindsey Hawes. Thank you, Lindsey.

*Lindsey Hawes:* Great, thank you and good morning everyone. And thanks for the opportunity to talk with you all today about the city of San Diego's Municipal Energy Program and the Power Partnership. I'm Lindsey Hawes, I'm the Municipal Energy Program Manager in the Sustainability and Mobility Department at the City of San Diego. Next slide please. So, I'm sorry, next slide.

Thanks. Okay. So to set the stage for this discussion, I wanted to start with a quick overview of the city's Climate Action Plan, which was updated just last year with a new goal to achieve citywide net zero emissions by 2035. The Climate Action Plan is organized into six strategies with specific GHG reduction actions called out in each.

And here we're looking at a wedge chart that summarizes the path to zero emissions in San Diego. The top dotted line represents the

city's projected emissions with no action or business as usual. The red and blue wedges show projected reductions from federal, state and regional initiatives. And below that we see each of the six CAP strategies.

Today's discussion focuses primarily on the yellow wedge, which is strategy one, decarbonization of the built environment. And as you can see, the yellow wedge is the biggest of all of those under the purview of the City of San Diego, meaning GHG reductions from the building sector are pretty huge.

For municipal facilities though, our goal is not net zero, it is actually zero by 2035. Which is kind of spooky when you think about it. We established this more aggressive internal target in 2020 really to force ourselves to get to work as quickly as possible so that we can lead by example, learn as many lessons as we can, and basically clear the path for the rest of the building sector here locally as they work towards their net zero emissions goal in 2035. Next slide.

So to meet the CAP target in the municipal sector, we need to remove natural gas from around 400 municipal facilities, and prepare for over 4000 fleet vehicles to plug into our buildings as they're electrified. And we have around 11 years to get this work done. One of the primary ways we are holding ourselves accountable to these goals is with Council Policy 900-03 which is the Zero Emissions Municipal Buildings and Operations Policy, also known as ZEMBOP. Which I'll talk about on the next slide.

ZEMBOP was adopted last October. It requires all new municipal construction to be all electric. It provides specifications for retrofits to our 400 existing buildings. And it calls for fossil fuel elimination plans and fleet charging plans from all asset managing departments. The good folks in Parks and Rec, Fire and Rescue, the Library Department, the Police Department, et cetera.

We anticipate that the 400 retrofits will be executed by some key partners in this effort. First of all, the Department of General Services Facilities Team will install efficient electric technologies as they maintain and replace aging systems. Some of these retrofits will also be performed as part of capital improvement by our partners over in the Engineering and Capital Projects Department. And we're relying on energy savings performance contracts, or public/private partnerships, to address a large percentage of the work ahead. And that's that very last line, number three on this slide. Next slide please.

So with regards to the Energy Savings Performance Contracting, or ESPC model, we've just selected our energy services company, or our ESCO partner, along with a bench of other clean energy vendors that we intend to partner with over the next decade or so. For the ESCO, the ESCO will be investigating our facilities and prepare a scope of work and a funding package with the intent to pay for the project up front. And the city will then use our energy savings generated by the project to pay back the ESCO's investment over a specified repayment term.

The contract includes performance guarantees, and ESCO sticks around through the entire repayment term to monitor system performance and perform ongoing repairs. If the installed systems underperform, the ESCO's on the hook to fix or make the city whole on any lost energy savings. Ideally across a relatively large portfolio of sites, efficiency savings in some buildings will help cover the cost of electrification in other buildings. Next slide.

So to that end, we are developing a set of sites that our selected ESCO will review as a single portfolio to maximize the value and impact of the contract. Over the last month, we've coordinated with staff in nearly every asset managing department, and our facilities team, to talk through which facilities are the best fit for the portfolio. This interdepartmental collaboration builds on the partnerships we've established with city departments on all things municipal energy over the last several years.

For example, asset managers and engineering and capital projects teams are now using the ZEMBOP checklist. To ensure all new projects meet our policy requirements. We are finishing up electrification assessments of all of our buildings to identify the natural gas systems that need to be replaced. And this data is being incorporated into the fossil fuel elimination plan templates that we're providing to each department, which they will then revise to their liking and turn into annual CIP budget requests. Next slide.

So this last slide is kind of just a summary of the key partners we've worked with through the various initiatives that I've just covered. You'll see the city departments that I mentioned already, Engineering and Capital Projects, Facilities and Fleet Divisions over at the Department of General Services and of course our Asset Managing departments.

But I wanted to call out a few additional key players here. First off, the mayor and his staff. The City of San Diego has a strong mayor

form of government, and thankfully our mayor is very progressive. Without support from Mayor Gloria and his team, very little of this work would have been accomplished. We meet with our Mayor's Office liaison, our policy lead there, every week. And he both vets our initiatives and greases the wheels for success on a consistent basis, and I am very thankful for that partnership.

Another key partner for us is the Purchasing and Contracting Department, or P&C. The energy savings performance contracting model is brand new for the City of San Diego, and P&C was instrumental in helping us first adopt a muni code amendment that would allow us to bring on an ESCO partner without competition, and they also helped us develop a brand new procurement pathway to find our ESCO partner along with all of those other clean energy vendors that we've just identified.

Similarly, our City Attorney's Office has been a key partner here. We have a great attorney assigned to our department with expertise in energy contracts and utilities, and he has just been critical to getting the ESCO model off the ground, and also assisting with new types of contracts like energy management savings agreements for some microgrids we're piloting, and a whole bunch of grant contracts as well.

I also want to mention our external advocates. Every time we've gone to Council to propose adoption of things like our Municipal Energy Strategy, our Climate Action Plan, our Muni Code Amendment, our Zero Emissions policy. Our advocates from the Clean Tech and Business Sector, and our climate advocates, have shown up to make public comments and convince our councilmembers that it's the right thing to do.

Department of IT is another big one. We've been implementing pilots throughout the last several years, and what do you know, every single one includes some element of energy IOT or smart controls, and we expect much more of that as we work to implement an enterprise EAS and leverage our renewables and our microgrids as a virtual power plant. Department of IT will continue to be an instrumental partner in that work.

And last but not least, our local utility partners. San Diego Gas and Electric, and our community choice aggregator, San Diego Community Power. Luckily, San Diego Community Power offers a 100% renewable electricity product, which we are currently purchasing for all of, all 4000-ish accounts at the City of San Diego. So if we can remove natural gas, we've got that 100%

renewable electricity already flowing to our buildings.

Generally, our utility partners are a little harder to work with than our internal partners. But if we truly want to electrify, we really need them to continue to offer that 100% product to improve our grid. And we can really use their incentive money, and we know the rest of our community will benefit from that as well when they are faced with electrification retrofits and regulations which are coming over the next couple of years. So I wanted to make sure to give them a shout-out. Next slide.

My last slide, that's it for me. I look forward to answering any questions after our next speaker. Happy Halloween everyone, and I'll pass it back to Marta. Thank you.

*Marta Drzymala:* Thank you so much, Lindsey. Your zero emissions goal by 2035 is sure impressive, and the way you connect the dots between various departments is very inspiring. All right, let's take it now to Kevin, our last speaker before we head into the questions. Go ahead, Kevin.

*Kevin Smith:* Sorry about that. Next slide please. Thanks, Marta. And thanks to the DOE Better Climate Challenge team for having me. It's great to be here and talk with you today about Fairfax County's climate action implementation and partnership building. So again, I'm Kevin Smith, Energy Manager for, or Division Manager for Energy Programs in the Office of Environmental and Energy Coordination within Fairfax County. Next slide please.

So real quick, similar to what Lindsey just went over for San Diego, I'll be going over Fairfax County's climate action plan to give context into how we strategize our partnership building. And then spend most of the time talking about our partnerships both externally facing in the community, and internally within government. Next slide please. Next slide.

So, talking about our climate action plans. We, in Fairfax County we really strive to address both the cause and the effects of climate change. On the cause side, the mitigation, it's of course all about reducing greenhouse gas emissions. And we have two separate plans. One is CECAP, our Community-wide Energy and Climate Action Plan. All climate, or all community facing. And the overarching goal in CECAP and that plan is carbon neutrality for the entire Fairfax County community by 2050.

We like to have this philosophy internally in the government of,

we want to practice what we preach. So our operational energy strategy, which is government operations only, has a stricter carbon neutrality goal of carbon neutrality by 2040. So we want to make sure that we're kind of walking the walk well in advance of inspiring and encouraging our community to do so 10 years later.

And then on the effects side, we have our Resilient Fairfax plan. It's actually award-winning, a few different recent awards. I'll give that plug. This plan addresses both government operations and the community, and with resilience and really protecting against the effects of climate change, the two really kind of go hand in hand, because as a government, we need to continue basic and emergency services during extreme weather events. Next slide please.

And then so this pie chart here kind of illustrates how we go about focusing our efforts and strategies to reach out to different entities and organizations and develop those relationships and partnerships. So this is a breakdown of Fairfax County's greenhouse gas emissions by source for the year 2020. So on the right side, the commercial and residential energy consumption together, the building sector is our largest single emissions source.

But transportation is right behind. So because of those two large sectors we really focus on building energy conservation and efficiency, renewable energy deployment which in Fairfax County is mostly solar, and vehicle electrification. So that really helps us drive where those strategic partnerships need to be. Next slide.

And then on the resilience side, Resilient Fairfax is set up similarly with these four colors to help us focus our efforts. They're set up differently, because our resilience strategic planning is a little different from the mitigation side. But you do see there the resilient infrastructure and buildings kind of focusing on the physical infrastructure and be able to withstand extreme weather events, natural disasters, and the effects of climate change. And that really has a lot of overlap with what we're doing on the other side, the mitigation side, and it affects of course our partnerships. I'll get into that in a second. Next slide please.

So now switching gears and talking about community partnerships, next slide. So here are kind of our three umbrellas of programs and initiatives for all of our external facing partnerships and programs. So the first here is Climate Champions. And the idea here is that our office, the Office of Environmental and Energy Coordination, we're only a staff of about 15 people. We can't meet our Climate

Action Targets for the county or for the community by ourselves. Our government, we have about 12,000 employees, so we're a rather large organization. But even that is not big enough to tackle the immense challenges and meet our climate goals for over a million residents in the county.

So we really need to start building a network in the county of what we call Climate Champions. We've looked to the local leaders and really encourage and support them as they develop their own networks and kind of do their own meaningful climate action to inspire others and watch that kind of grow organically. There's really a sense of, especially, well, with CECAP and with Resilient Fairfax. Those were plans that were written in collaboration with our community, and the implementation also has to be in collaboration with the community.

So then that second umbrella, community programs and partnerships. This is where the county and, in a lot of examples my office, takes the lead role in setting up programs that foster a lot of climate action. So whether this is providing additional funding to help make climate action projects, energy efficiency, retrofits, vehicle electrification, electric vehicle charging station installations. We could, there's funding programs. There's education and support. There's connecting different people and organizations together to make those projects happen. But in this umbrella, it's really the county taking the lead.

And then finally with our county government operations, making our own operations greener. We definitely rely on external stakeholders as Lindsey talked about for San Diego. They have an energy services contractor. We do as well. So we rely on them for a lot of our deep energy retrofits. For our new construction buildings we rely on architectural and engineering teams that produce high performing net zero energy buildings.

On our vehicles side, we have partners that help us not only install electric vehicle charging stations for the county government vehicles and the community to use, but we also have partners that help us strategize where to locate those different EV charging stations and how to roll out that on a broad scale. Next slide please.

A little more diving into the multisector initiatives. These programs are more specific kind of falling under the umbrellas of what I shared on the last slide. But this really just illustrates that we're reaching out to a wide array of sectors and focus areas and industries throughout the community. So it's imperative that the

government makes sure that we don't leave anyone behind, whether it's a community or a sector. Next slide please.

And then our communications and outreach really have to be there as well. We can have all these programs, but if the community doesn't know about them, the programs really won't pick up any steam. So our overall strategy is really to present this information and kind of spread the word through a variety of different media, and then build that network as I talked about so they can also spread the word. And then finally, host events for educational and awareness purposes. Next slide.

And just a little bit more on our outreach philosophy. Really, we look to this mantra of one message, many voices. Again as I said, our office, OEEC there at the top, we're just 15 people. But if we can relay our message to groups like our board of supervisors, which is only 10 people but they are elected officials, so they have that inherent reach. As well as our networks that we're building. We can have the same message just amplified further and further throughout the community. Next slide please.

And then of course what we want to tell our community is just the wealth of different resources we have. The first two columns on the left and the middle are Fairfax County sponsored and led programs. And then on the right are partnerships and programs really led by other organizations out in the community. Next slide please.

And then now I'll switch gears, talking about our internal partnerships. Next slide. So really over the last few years, the push in our office has been developing these plans. But now we're shifting over into the implementation. Let's make some action. The planning process really involved a wide variety of stakeholders, both from within the government and externally. And in implementation, it's going to be the same thing. Our office as I've said several times already, we can't do it alone. So what we've done is we've developed these groups within the county government to address different areas within these climate plans, and talk about how we're going to actually meet our goals. Next slide please.

And just to pick out a group that's kind of relevant to this audience, group five is our County Facilities and Operations. It's really buildings, vehicles and our horizontal infrastructure. And this really just illustrates the breadth of the group and all the different staff that are involved. We meet four times a year, give



updates on progress. It's really about empowering each agency within our government to step up and lead their own initiatives to meet our operational energy strategy and resilient Fairfax goals.

Our office doesn't have the bandwidth or the authority to implement a lot of these initiatives ourselves, so we really count on our partners in different agencies. But that said, our office is here to coordinate effort, to make sure that everyone's talking to each other, a lot like the Better Climate Challenge where Fairfax County can talk to other jurisdictions and other companies out in the country that talk about success stories, lessons learned, what has and hasn't worked. So we're all going in the same direction towards those climate goals. Next please.

And then just to illustrate similar to what Lindsey showed, really just the long list of partnerships that we need for each different climate plan. It really takes a whole village of county government staff to get to our goals. Many different complex relationships and partnerships that we have to build. One example is how we roll out our electric vehicle charging stations on county property. So it takes the actual charging station itself. We have a vendor that installs that, which is that contract is coordinated out of our vehicle services departments.

And then there's the electrical infrastructure to connect that charging station to our, through the building. It's located in here. Our capital facilities group manages that project. And then my office, OEEC, kind of coordinates the broader level rollout of all of these charging stations. But we also provide funding and technical support. So that's just an example of just three different entities. Then when the charging station's actually installed, our facility's management team is involved with the maintenance and overseeing of that asset, because they oversee the building. So there's really so many different players involved. And this isn't even an exhaustive list of all the relationships that need to be formed to help these initiatives happen. Next slide please.

I'll leave it here. This is just kind of the broad overview of what my office does. You can see really these four pretty big categories of Environmental Administration and Policy, which I really didn't touch on. And then the other three are really related to those climate action plans that I did discuss. All the partnerships required to make them happen.

So yeah, it's obviously our, the challenge in front of us is really massive and we've put in a lot of work to plan on how to tackle

that. But it's really going to come down to the implementation, the action, especially over the next few years. And we're really going to rely on all these partnerships that we've started to build to make those plans a reality. And that is it. Thanks, Marta.

*Marta Drzymala:* Thank you so much, Kevin. One message, many voices. That was a really great presentation. Thank you for illustrating how you reach your community through various outreach initiatives, networks and partnerships. And now it's time for Q&A. If you could please navigate to Slido #DOE and then search your questions there, we can get started on what I'm sure will be a fabulous discussion.

I see that there are a few questions related to San Diego. Why don't we just tackle first the questions that maybe receive the most amount of thumbs up. Lindsey, since you are on, maybe you can answer the first question. What metrics aspects did your city choose to evaluate which buildings to target first?

*Lindsey Hawes:* Yeah, great question. So with regards to the ESCO model we have I think 54 facilities in our first portfolio that we just landed on over the last couple of weeks. And we really looked at a lot of different metrics. First and foremost, energy performance of the facilities. You know, we were looking for facilities that had a good opportunity for energy efficiency, since those retrofits are what are going to drive the savings and allow us to perform the most work and have the most cost-effective energy savings performance contract at the end of the day.

But you know, we brought a list of facilities and buildings to our asset managing departments and to our other internal partners and said hey, what do you think about these? And they had a lot to say. You know, they wanted to make sure that they were the right facilities from their perspectives.

We ended up weeding a lot of facilities out because there were capital improvement projects that were going to end up complicating things. We have some asbestos issues that also are going to likely kick a few sites out of the list. We also have a fairly strong focus on equity in San Diego, so we wanted to make sure we were addressing a good number of facilities in our communities of concern.

We have an equity index report that kind of helps us identify our priority areas from census tract level and we wanted to make sure we had a good number of sites there. We also wanted to make sure

we were spreading the love across all nine council districts. So it was a bit of a jigsaw puzzle to figure out the right list. I think those, oh. There was also a resiliency element. We wanted to make sure we were hitting sites that had critical service, emergency service, and we're able to address those from a resiliency perspective as well, kind of building on what Kevin said about a local government's role in continuing to serve our population during outages and emergencies.

*Marta Drzymala:* And really quickly, I see a couple more questions for you. Could you address who is your ESCO service provider? And then if your CAPs are science based?

*Lindsey Hawes:* Yes. So the first ESCO we selected is Willdan. We also have on our bench for future partnerships the potential to partner with Ameresco, NORESO, Siemens, and A.E. Pump. And then I believe our CAP target is science based, and if by that you mean the mitigation measures necessary to avoid more than two degrees Celsius in temperature increase. I think the answer is yes. I was actually, I saw your question and then I was chatting with folks on my CAP management team to find out the answer. I'll let you know if the answer is not indeed yes, once I hear from them.

*Marta Drzymala:* Thank you so much, Lindsey. A few other questions on the line, is folks are interested in your graph. Can you tell us a little bit more about that? The wedge graph forecasting decarbonization.

*Lindsey Hawes:* Sure. So another partner that we've been working with is the Energy Policy Initiative Center, or EPIC, which is a group out of the University of San Diego, USD. They helped us perform all of the science based research and calculations that informed our CAP and kind of helped apply the science and methodology to the vast number of CAP implementation actions. I think there's 197 actions or something like that, that were developed through a community partnership effort. And they developed that wedge graph for us. So check out EPIC at USD.

*Marta Drzymala:* Thank you so much. And I see another question, which is, which entities come back to building level of or ERP audits? Maybe we can have Tom take that.

*Tom Abram:* Sure. I see the question's also looking at what is the standard process. So I did add in, in the Slido, a link to the Emissions Reduction Audit Checklist, so that provides kind of a guide, owner facing guide on that. There's a variety of folks who can provide those audits. Looking at organizations that have conducted energy

audits in the past, or kind of moving in towards emission reduction audits. And then through the Better Climate Challenge, through the technical assistance work, we can provide some perspectives and look at the scope, look at the results from the audit, and provide some perspectives and feedback to help strengthen those deliverables.

*Marta Drzymala:* Thank you so much. I think we have time for a couple more questions. I see that the next question starts with, if Lindsey could speak more about some of the challenges working with utilities. But I think that any one of our panelists could probably take it. Give us an example and maybe approach of a solution to solve those challenges.

*Lindsey Hawes:* I can probably speak to that. So one of the ways we have addressed the challenge of working with our utility, specifically San Diego Gas and Electric, is through a franchise agreement. We have a franchise agreement with SDG&E, and part of that agreement includes a cooperative agreement. And we have listed in contractual terms, essentially the expectations for each party in this cooperative agreement.

And that document is referenced regularly to hold each party accountable to delivering on the partnership and the collaboration that was, the expectations that were established when the franchise was executed. And it has been a really helpful tool to really again hold everyone accountable and make sure that the work that we are working on together is progressing at the speed that the city expects and needs if we're going to hit our targets.

*Marta Drzymala:* Thank you so much. And I think we are at time. Thank you everyone for your questions and huge thanks to our panelists for their insightful presentations. This webinar is part of the 2023-2024 Better Buildings Webinar Series. We have a great lineup as you can see through March, so I hope you visit the Better Buildings Solution Center to learn more, and register.

Next webinar is November 14, titled "Enhancing Energy Management Using 50001 Ready to Achieve Decarbonization Goals." So join this webinar to learn more about the program and explore how building facilities can utilize integrated guidance and resources to save more and achieve energy efficiency and decarbonization goals sooner. Next slide please.

Mark your calendar for Summit. The U.S. Department of Energy's 2024 Better Buildings, Better Plants Summit will be April 2-4 in

Washington, DC. This event will feature engaging and interactive sessions as well as opportunities for attendees to network with industry peers and national experts. Registration details are coming soon, so stay tuned for that.

And next, we are also, check out seasons of our Road Show. Our energy experts hit the road to see how our partners are doing. We have Season One in Nashville and Cleveland, so we hope that you enjoy visiting our partners through the Road Show.

And with that, I'd like to thank our panelists one more time for taking the time to be with us today. Feel free to contact our presenters directly with additional questions. Or you can reach out to myself as well. I encourage you to follow the Better Buildings Initiative on LinkedIn and X for the latest news. You can find our handles by their respective icons. And you will receive an e-mail notification when today's recording and slides and transcript are available on the Better Buildings Solution Center. Thank you everyone, and have a wonderful rest of your day.

*[End of Audio]*

## Additional Resources

Learn more about the topics discussed on the webinar by visiting the resources below.

### Better Buildings Resources

- Better Climate Challenge [Framework](#) for Greenhouse Gas Emissions Reduction Planning: Building Portfolios
- Better Climate Challenge GHG Emissions Reduction Audit [Checklist](#)
- City of San Diego, CA [Partner Profile](#)
- County of Fairfax, VA [Partner Profile](#)

Explore more resources on the [Better Buildings Solution Center](#)

### Other Resources

- Community-Wide Greenhouse Gas Emissions Inventory Summaries [Website](#)
- Fairfax County Community-wide Energy and Climate [Action Plan](#)
- City of San Diego, CA Municipal Energy [Program and Projects](#)
- Fairfax County Operational Energy [Strategy](#)
- Resilient Fairfax Climate Adaptation and Resilience [Plan](#)
- Office of Environmental and Energy Coordination [Website](#)

## Up Next in the 2023-2024 Better Buildings Webinar Series

**Enhancing Energy Management: Using 50001 Ready to Achieve Decarbonization Goals**  
Tuesday, November 14<sup>th</sup> from 11am – 12pm ET

Join this webinar to learn more about the program and explore how buildings and facilities can utilize integrated guidance and resources to save more and achieve energy efficiency and decarbonization goals sooner.

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