Caltrans Broadband Industry Meeting / Broadband for All Roundtable: Transcription

May 12, 2022

Transcript

Good morning everybody, hello, on behalf of the California Department of Transportation, I would like to welcome you to today's Caltrans Broadband Industry meeting and the Broadband for All roundtable. My name is Elizabeth Dooher, and I'm the Caltrans Broadband Facilities Coordinator and your facilitator for today. For those who have joined us for past meetings, I've hope you've found that the information that we provide has been helpful and that you've benefited as much of these discussions as I have.

For those of you who are joining for the first time, let me start by reviewing why we're here today. The purpose of this meeting is to share updates on the broadband efforts throughout the state of California. It's also to engage in open discussion on facilitating broadband infrastructure deployment within the state highway Right of Way and throughout the state of California. Before we get started, I would like to cover somebody in logistics. The virtual venue for today is WebEx Events. It is similar to other online media applications that you may be familiar with, including WebEx Meetings, zoom or MS teams with the features including Q&A, as well as hand raising. I would like to remind the panelists and presenters to please be sure you are muted if you are not speaking. Attendees, you will not be able to unmute yourself, so our host today, Yolanda Torres, will be us with this. If you have a question, we ask that you use the Q&A box. The Q&A box may be found along the bottom right side of your screen. If you do not see these features, you will see them by clicking on the triple dots which will show you more options. There will also be opportunities to ask questions throughout the meeting. At these times, we will ask you to raise your hand and we will unmute you and for any questions not answered today. We will be following up with responses after that. Let's go ahead and get started. To share opening remarks, we are honored to have Deputy Secretary for Innovative Mobility and Solutions from the California State Transportation Agency, Lori Pepper, the Secretary of the California Government Operations Agency, Amy Tong, Acting Director of the California Department of Transportation, Steven Keck, and the president and CEO of California Emerging Technology Fund, Sunne Wright McPeak. I want to thank all of our guest speakers this morning for your time today. And I'd like to welcome Lori Pepper, Lori?

Thank you so much, Elizabeth, for morning everyone. I don't have prepared remarks from as you probably saw on the agenda, we have a lot of updates so I will be very, very quick. I really want to thank all of you for attending, I want to thank everybody who will be presenting today

including all of our friends and colleagues at Caltrans, GovOps, DGS, CDT, Golden State Net, we're getting a whole bunch of people, but as you'll see, the issue of broadband deployment and adoption is one that runs through so many different departments and agencies of the state, and we could not do that without our private sector partners either, so thank you so much. I feel like the projects that we're going to hear from, are really good progress and I'm excited to see more of where we are and where we're going. So thank y'all so much.

Thank you, Lori. Secretary Tong.

Yes, thank you, Elizabeth, And thank you Deputy Secretary Pepper. I'm going to follow her with very brief remarks because I want to save a lot of time for all of you all, there's a *lot* of good content today and I'm really, really excited about today's forum. Thank you Caltrans, for inviting me, and the other state partners in today's roundtable discussion as part of your biannual Broadband industry meeting. We are pleased to see so many internet service providers and digital partners working around a common goal to close the digital divide and foster this digital equity and inclusion in the state. As you know, broadband is essential to modern life: with school, work, healthcare, increasingly and completely available online. As a public health, it's imperative, California's ability to access and use broadband became the difference between being able to fully engage in life, and being cut off. And yet many Californians still do not have access to what they need. So, it is definitely time to close the digital divide. We face complex and deep rooted challenges to delivering Broadband for All. We recognize achieving Broadband For All requires partnership, and the support from all of you, the broadband industry, the federal, local, and tribal governments. Thankfully, we are at the moment in time where federal and state policies, priorities of funding are all aligned around the goal we are here to share, and the state's broadband for all program acknowledges that broadband access, adoption and training are essential components of digital equity. Today we'll hear about progress that California Broadband Council members have made on the implementation of the Broadband for All Action Plan. You will hear status update on the state's historic $6 billion broadband investment in middle mile infrastructure and the last mile grants program that the governor and the legislature created and funded last July in passing the Senate Bill 156. To support these efforts, the recent federal bipartisan infrastructure legislation allocated an additional $62 billion to further support states through a variety of programs to making home internet service devices affordable, and to enable states to build on and expand their digital equity efforts. The state is actively pursuing these funds, in support of our digital equity effort, and all the effort that you are doing across California. We are eager to expand our partnership and align efforts with yours to achieve Broadband for all California. Thank you back to you, Elizabeth.

Thank you, Secretary Tong, again for being here today, and for those words. Going to turn it over to acting director of Caltrans, Steven Keck.

Thank you, Elizabeth, and hello and good morning to all of you, as the acting director, before we get going, I do want to extend my thanks to Lori Pepper, Amy Tong, and Sunne Wright McPeak, for joining Caltrans here today. Their leadership and support are really invaluable and greatly appreciated, especially with this Broadband effort that we were focused on today. I'm also pleased to welcome representatives from the California Department of Technology, the California Public Utilities Commission, the California Emerging Technology Fund. They're all here today to share information on the state's Broadband for All Initiative and the ongoing efforts and I want to extend a welcome to all of the industry partners and stakeholders that have joined us today. Thank you very much for your participation. For our part, Caltrans is going to be sharing an update on Broadband accommodations within the state highway Right of Way. So today is really going to provide us all an opportunity to talk about how we can best work together, with that focus on serving the under connected and un connected communities that we still have in California. Also we're going to talk about how we can each fill our roles and do our part to ensure the success of this project. So, expanding out broadband continues to be at the forefront when we address things like healthcare, education, the workforce and state that we have right now, things we don't even know about yet. If you think about two years ago, before we started this huge telework effort, we don't even know what's coming net. So we have a responsibility and an interest in facilitating the installation of digital communication throughout the state. For Caltrans, that means collaborating with our agency partner, industry such as yourself, to identify those opportunities to achieving the goals that will further the broadband initiative. So, we're focused on closing that digital divide for residents and businesses, but also, enabling Caltrans ourselves, to use the technological innovations to improve safety and mobility of the California travelers. So I want to again, thank everyone, including our guest presenters today, broadband partners who have joined us and our stakeholders: Thank you all for being here today and actively participating in the Broadband effort throughout California.

Thank you, Director Keck. Now we'd like to hear a few words from Sunne. Sunne?

Thank you, Elizabeth, what a pleasure it is to join you again, to thank you for your leadership and to be among these distinguished California leaders and say a few words of welcome. I love saying Secretary Tong, I love that promotion and so thank you, Amy, and Deputy Secretary Pepper and Acting Director Keck, beautiful words. I appreciate your vision and your continued leadership, from now Secretary of Omishakin. I think most people on this call realize that I have an opportunity to work with Caltrans very closely in the past, I was honored to be

Secretary of Business Transportation and Housing a few years ago, and I'm just extraordinarily appreciative of the leadership that Caltrans is providing so, Elizabeth and Steven, and the entire team all twelve districts, amazing. I also want to acknowledge that the California Department of Technology, the California Public Utilities Commission, the entire Governor's cabinet, the legislature, and, um CETF SER to serve on the California Broadband Council, from my perspective, and I think everyone at Caltrans can attest, that I'm pretty demanding that I expect the highest in service and leadership, I just want to say to all of you on this call today, that all state leaders in the administration, in the legislature have stepped up. Literally, I told the Los Angeles Times this week so you should note it on your calendar, that I could not ask more of the State of California. That does not mean we do not have a lot of work to do, it means a huge amount of opportunity that is before us. I will say the issues that sparked the establishment of these regular meetings have been worked through. That's largely to your credit, Elizabeth, to the leadership of Caltrans. You will hear later today on a panel of the affordable connectivity program. Chris Smith, from district eleven Caltrans has actually been assigned to the San Diego Association of Governments, really unprecedented kind of collaboration to work hand in hand shoulder to shoulder and not only deployment but on adoption, and that is a huge breakthrough. When I was secretary, some people would scratch their heads when I used to say, the best trip is a virtual trip, and I want to repeat that the best trip is a virtual trip, if I can unload a vehicle trip on the surface transportation system, not only have we done something to relieve traffic, but to relieve an impact on the environment and that is what our initiative really entails here in working aggressively to accommodate in the Caltrans Rights of Way, and other states' Rights of Way, the deployment of broadband. I will also say that I am very pleased to report we released on Thursday, literally just a couple of weeks ago, the results of a Caltrans grant to the Southern California Association of Governments looking at the relationship between universal deployment of Broadband and Adoption and the potential reduction of vehicle trips and decrease in greenhouse gas emissions. And the bottom line was: in many, many different angles of analysis, that can reduce greenhouse gas emissions with ubiquitous broadband and universal adoption of broadband by one to fifteen percent. That's not insignificant, that actually exceeds what we're able to do with bike paths, and walking trails, those kinds of things. So: the work we are doing here is not only to help in the deployment of broadband, and to find ways in which we work together to really collaborate on middle mile and last mile, it also is our way of of contributing to the fight against climate change. So with that I want to come back and say to you, Elizabeth, thank you for your leadership personally, to Deputy Director, or Acting Director at this point, Keck, and our colleagues in the state: thank you for your leadership. To the internet service providers: we can't say enough we appreciate your investment in California. You also have to figure out how to get to the hardest to reach communities together. And that's what this conversation will advance today.

Thank you. Thank you so much. To Deputy Secretary Pepper, to Secretary Tong, Acting Director Keck and to Ms. McPeak. I want to thank you for being here today for sharing those words. What a great way to start this meeting. It's got me all excited, I really enjoy meeting with you all every six months. And we are truly fortunate to have such excellent leaders and great champions, and thank you all for your vision and your wisdom on this, and your… as it's been said we have a lot of work to get ahead of us while we are making advances, There's no shortage of areas that we can continue to improve upon. So, thank you again to all of our guests for being here. Next on the agenda is Caltrans' broadband update. And I'd like to introduce to you, Tina Lucas. Tina is the Chief of the Office of Project Support in the Caltrans division of design. And she's here today to share some information on our Broadband accommodation policy. So thank you, Tina, for being here and we will turn it over to you.

Okay, excellent. Thank you, Elizabeth. Good morning. Happy Thursday everyone. Once again, I would like to apologize I don't have a web camera on my laptop. So I am going to… unfortunately not be able to see all of your faces and you won't be able to see mine but let me get started here. As Elizabeth said, I am the Office Chief for Project Support and Caltrans division of design. My office is responsible for the encroachment and utility accommodation policies covered in chapter 17 of the project Development Procedures Manual. Given the increasing number of broadband installations in the state highway right of way, both permit installations and broadband middle mile network, Caltrans worked with FHWA to develop new encroachment policies, and clarifications for wired broadband installations in the right of way and I'm here to share that, those updates today. Okay, so the new and clarified policies were published in a memo, memorandum on March 25th, 2022. The policies replace the existing policies in the project development Procedures Manual, chapter 17, section two. The policies provide more flexibility for your installations, while balancing the need to ensure the safety and operability of our highways. And that's not just safety for motorists, but also safety for your workers who will be maintaining these facilities. And finally, these policies, since they are for access controlled right of way. What that means is they apply to interstates, freeways and expressways for conventional highways, which many of these projects will be installed on, the existing policies in the encroachment permit manual still apply. We haven't changed those policies. The policy memo and attachments are available to download from the Caltrans encroachment permit's website. I show the URLs here, and this information will be shared with you after this meeting, so you can access the memo. The first attachment is the signed memorandum that explains our process and reason for developing these policies. Once again, it's because as we've previously heard from our distinguished guest speakers, right, broadband is essential to more work, education, health; and Caltrans is doing our part to make those installations easier to be accomplished within our right of way. The second attachment, attachment A, goes in more detail about the encroachment policy revisions, I'll touch upon a few of the key elements in a subsequent slide. And finally, attachment B provides guidance for installations on bridges. Next, I'd like to share a diagram that is part of

attachment A, which very nicely illustrates the hierarchy for the preferred placement of these longitudinal installations. As shown in the diagram, the preferred location, whenever possible is to go within this zone here: within 10 feet of the right of way line. If that preferred location is not feasible, then the secondary preference for Broadband installation is in this next zone, which is from 10 feet of the right of way line over here to the hinge point of the pavement. And if you're placing the broadband facility in this secondary zone, all you need to do is document the reason why it needs to be placed here, and why it can't be placed in the preferred location. And finally, if you are proposing to place your broadband facilities within three to four feet, this hinge width here, which also may be where we have guardrail located, or underneath the pavement structure itself, then that would require an encroachment policy exception. So, for most part, all it requires is some explanation of why you need to place it where you need to place it, and hopefully that will be able to accommodate the majority of your installation.

Okay, next: what are some key elements of our new policies? First and foremost, we've listened to your feedback and through my time in this office, in receiving numerous exception requests related to this point, we realize that maintenance access points have been a critical need that were not previously allowing an accessed controlled right of way. So we have now provided more flexibility, maintenance access points are allowed after certain criteria and those are detailed in the memorandum and attachment A. Maintenance access points are not allowed at locations where access is needed from the main line or ramps of the interstate. The preferred location is, on Interstate, is to go at grade separated locations where it could be placed on the local road, on an undercrossing overcrossing or a frontage road. There is more flexibility if you are on a non-interstate route. Buried boxes, and by buried we mean covered with backflow or soil so that they're not visible to someone who might be interested in, you know, vandalizing the insulation, those are not considered maintenance access points, so we encourage you to consider backfilling those to prevent vandalism and wire theft which will also help cut down on the maintenance needed for your facilities. And most importantly, FHWA doesn't consider buried boxes maintenance access points, for purposes of complying with the criteria, so once again, there is more flexibility and it can prevent the vandalism and wire theft which unfortunately, that does sometimes occur on our Caltrans facilities. And I would just like to emphasize a key point FHWA approval is needed for broadband installations on Interstate. So that would need to be factored into the development time for your projects. Once again, these very detailed policies of the different situations criteria under which we allow maintenance access points on non-interstate routes, those are detailed in Attachment A on the memo, which I shared the URLs previously. And that is really it, in terms of the key updates that I wanted to share. And, just a reminder, if you download chapter 17 of the PDPM in our eagerness to get these new policies out, we published them via memo, chapter 17 has not yet been updated. So don't be alarmed if you compare these criteria and the new policies to Chapter 17, and say Hey, what happened 17 has not updated, we will be updating

17 but we wanted to release this new guidance as soon as possible to assist all of you with your contracts. And so with that, I will hand it back to Elizabeth. That concludes my presentation.

Thank you, Tina. Thank you so much. As we do have a few minutes. Just a reminder to everybody, but for those who may have joined a little bit late, I do want to share that we are recording this meeting just for your information. We also have the ability to respond to your questions. If you enter it into the Q&A box, we are monitoring the question and answer box for any questions you might have. And since we do have a few minutes as well right now, if you have a question, please also feel free to raise your hand and we can unmute you and respond to any questions that way. So I want to just take just a moment here to give you all opportunity to see if you have any questions about the information that was just shared with you this morning on Caltrans' broadband accommodation policy. And again my thanks to Yolanda Torres for helping us to host this meaning behind the scenes, getting additional people added and registered as we present this morning, monitoring for hands raised to unmute them, and working with our guest speakers and presenters. So I don't see any questions in the Q&A, and I'm not seeing any hands right now. So, Yolanda, I want to turn to you very briefly, do you see any hands raised as the host?

No.

Thank you. Thank you very much. So with that, so thank you again, Tina for being here. Thank you for sharing that. Really appreciate that update this morning. Since our last meeting, there have been many developments in the efforts to expand broadband access throughout the state. And as shared in our meeting announcements, as part of today's meeting, Caltrans is hosting partners from around the state for a roundtable discussion about the state's broadband for all program. The middle mile broadband initiative, CPUC's last mile and adoption programs, and other digital equity initiatives. So to facilitate this discussion, it's my pleasure to introduce to you the Deputy Director of Broadband and Digital Literacy from the California Department of Technology. Please welcome Scott Adams. Scott?

Hi, Elizabeth. Thank you so much. Wanted to extend much gratitude to our state leaders who came on today and voiced the state's strong commitment to, you know, advancing broadband throughout the state. Wanted to thank Caltrans in particular, for sharing this time with us to embed the broadband for all roundtable content with our ISP partners and wanted to definitely, thank the ISP partners that are here today, for the work that they've done to advance broadband across the state, and to, you know, just, issue a call of action that we're

eager to continue as partners, we've really capitalized on this moment to close the digital divide and foster digital equity throughout the state. I do want to note that this is the second of four roundtables that the state is hosting in the next couple of weeks. The first one was with cities, counties and broadband consortia's and metropolitan and planning organizations. We have this one today with ISPs, later today will convene with schools, libraries and community based organizations, and then next week with Tribal governments. So really our focus is to, you know, continue to do what we can to align with the partners that are required to do the heavy lift that we're all assigned doing. So, could you advance the next slide please? As Elizabeth stated, really, we're here today with state partners, broadband council members, broadband state agencies wanted to give you an update on the agenda. It's pretty packed. We're going to provide an update on the implementation of the broadband for all action plan. An update on the work that's being done by the middle mile broadband initiative, our partners from the PUC are going to provide an update on the last mile and adoption programs that they are administering, and then as Sunne mentioned, they'll be a section on the affordable connectivity program and a panel. And we will close out as Secretary Tong stated on an update on the NTIA IIJA Broadband Programs. We're gonna stack the presentations one after the other, and staff will be monitoring questions as they can come in in the chat and the Q&A, and then at the end of the presentations, we'll do a big Q&A session. So just wanted to point that out. Next slide, please. Again, I…thank you… did want to just state that, you know, in my role and the Broadband Offices' role, on broadband and digital literacy, our main goal is to help support the implementation of the state's Broadband for All program. It's based on the foundation of promoting access to broadband infrastructure and service, helping to increase the ability and adoption of that service, and then fostering and promoting digital equity inclusion throughout the state. Next slide please. Much of our work really stems and flows through the California Broadband Council, which, has really been at the state level, the main collaborative body working to promote broadband deployment and adoption throughout the state, and I'm sure [inaudible] We're very pleased to have many members of the Broadband council and other partners here today to talk about the work that they're doing. I'd be remiss if I didn't say you know, the pandemic and the governor's broadband executive order really refocused the work of the broadband council and the partner entities to really redouble their focus to close the digital divide. And the executive order, you know, directed the broadband council to develop the Broadband for All Action Plan, which they did, um, very significantly and in partnership with many of you, providing input and feedback put that plan together in about four months during the pandemic and that was completed at the end of December 2020. Really, the main goals are just get to round three, and that's that all homes, schools and businesses have access to reliable and affordable broadband, that California residents have access to affordable service and devices, and avenues to receive the training and the skills they need to succeed in the, you know, the online world. In July of last year, our office and the Department's roles were significantly expanded with senate bill 156, CDT and the broadband office in charge of developing the state's Middle Mile broadband initiative and you'll hear from Deputy Director

Mark more about that after this presentation. Next slide please. On the action plan, the Department of Technology in our office oversees the implementation of the action plan, and supports and monitors its progress, and the partners who will be assigned to many of these action items. We're leading efforts on six of those 24 action items. You'll see this slide really represents that we're working to explore options to enhance permitting processes at all levels of government. Identifying and working with the Department of General Services to identify state properties for possible use in broadband infrastructure deployment, working to promote state contractual vehicles to support cost savings and efficient persons [inaudible] using broadband services and equipment. Working to promote and track the progress of adoption of affordable Internet services and devices throughout the state, developing a multimodal network of digital inclusion stakeholders, which really these roundtables are intended to be a part of that effort, and then establishing a Broadband for All portal to serve as a central repository of information for a variety of partners, including you folks throughout the state. Next slide, please. I think critical to this group, and you've heard the work that Caltrans is doing on permitting and a lot of that is related to their action items, which are action item number four and number five or an action plan, action item number six is around enhancing permitting in all levels of government.

In our annual review of the Broadband for All action plan we had revised this to include not just CDT and the Broadband office but Caltrans, GoBiz, and the California Emerging Technology Fund and just want to, to give you a brief update on the work we've been doing on this. At the federal level, we've had several conversations with our federal permitting partners, primarily through the federal improvements steering council, and the attempt there is given the amount of broadband infrastructure there is going to be on the middle and last mile, finding ways to establish a partnership with these entities to create a more efficient, permitting process for the state in the middle mile effort is really providing us with a use case to begin these conversations with FPISCs, their acronym. At the state level, we've been working very closely with Caltrans and the resource agency partners. Again, using the middle mile as a use case to see how given the size and scale of the project from the tight timelines how we can develop programmatic approaches to permitting for broadband projects. And one of the goals here is that while the middle miles is a good use case, to begin these conversations and develop solutions, we're keeping an eye towards how we can take what we learned in apply those to last mile efforts. The last two things I wanted to mention on local government permitting, we're working very closely with GoBiz to really take a closer look on the local jurisdictions side, and then hopefully with you all here today, to get a sense of what the barriers and constraints are around, local and last mile permitting. At our local jurisdiction meeting, a couple of weeks ago, we sent out a survey to get their feedback on how the state might be able to support those efforts. And after this meeting today, we'll be sending out a survey to all and we hope you will participate and provide us feedback from your perspective on how we can collectively work to enhance permitting processes. Our ultimate goal is to develop a

permitting checklist that would turn into a permitting playbook that local governments and other entities can use to navigate the broadband permitting system, and hopefully deploy last mile projects faster. And the last piece on this, we are working towards working with the state's travel elements, to really quickly share the state's plans on the middle mile and last mile, and engage with them about how we can early on make them aware of the projects that are going through and how they impact their lands, and Caltrans has provided some criteria to DGS to search through the states and SPI database, to identify state properties that could be used for broadband deployment and…Jason if you get on, feel free to jump in but… there you go Jason.

Oh good, yay, sorry….Ironic, technical difficulties, yeah. So what I'm going to say, thank you Scott. What I'm going to say is going to apply to non-Caltrans properties so consider this maybe, the balance of the state. But yes, there are there are 44,370 pieces of state property. A lot of that, as you can imagine, you know, is forested land, lakes, beaches, those sorts of things, things that wouldn't necessarily have any direct linkage to this particular effort, potentially. Or maybe not. But, you have quite a bit of property in state books. The beautiful thing about it is DGS, as the property manager for the state of California, while we don't have direct control over those properties, we can dictate what happens to them. We have pretty broad transactional authority to work with departments in order to effectuate things on state property. So we have been working with CPUC with CDT, and others to see where our state properties might align with the efforts. And, you know, just looking at a certain distance away from the middle mile network, there are thousands of opportunities, both real property and structures, of those 44,000 state owned properties, there's about 24,000 structures across those, and so there's opportunity potentially for below ground deployment, citing the towers and antennas on building roofs, those sorts of things. So it's an exciting prospect. We do publicly post our portfolio of state property, that's called a state property inventory. Happy to send out a link after this if folks are interested. But you know, our ability to really identify property is pretty great. It's a, it is a GIS enabled database. And we stand ready to work with industry partners in seeing where we can really make progress. We have been talking about developing a bit of a survey that we would expect to get out to industry partners shortly to be able to sort of help gauge interest. Because, as you can imagine with a universe as broad as our properties are, the more information that we can accurately get, the more we can refine that…..generally speaking, we would need to offer competitively, any use of state property, which is why we'd love to get more intel and be able to bundle things together. But the opportunity is there, it's an exciting prospect and the nice thing about these non-Caltrans properties as well, is generally speaking, DGS would be the entity that would handle permitting, inspections, entitlements through CEQA, and of course state sovereignty attaches, and so we aren't subject of local regulation or control either. So it's kind of a one stop shop and it's an exciting prospect to work with the industry to see if we can site some of this broadband infrastructure on state property to advance both middle mile and last mile purposes.

Thank you so much, Jason. I really appreciate the work that you are leading on this effort in collaboration with the other partners, [inaudible] survey solicit industry's feedback on how this effort might be meaningful. We're combining a permitting and properties survey that we will send out pretty shortly after this event. I would just encourage you folks to take some time, it's a relatively short survey, just to get it into the hands of the right folks to have your entities and your feedback would be really critical in making the efforts around permitting and property identification meaningful and consistent with the broadband for all action plan. The last thing we wanted to update you folks on in terms of the Broadband for All action plan is we have established the portal, the first attempt was launched a couple months ago, and Laura Sasaki, our Broadband Initiatives Manager is going to give you a brief demo on that. Laura?

Thanks, Scott. Good morning, everyone. Yolanda, if I could share please? Thank you. Ok, good morning, everyone. Thank you for joining us today. I wanted to do just a brief walkthrough on the Broadband for All Portal. As Scott mentioned, this was a result of action item 21 from the Broadband for All action plan. And it really highlights from the first moment that you hit the landing page, the broadband for all program, that is the overarching program over the broadband project initiatives, the broadband for all action plan, the middle mile broadband initiative and the last mile adoption program from the CPUC. These all link out to landing pages with the middle mile linking out to our CDT's middle mile broadband page. And the last mile adoption linking out to the CPUC's pages. We have several tools on the on the main page for communities, for partners, as well as upcoming events, and an ability to subscribe to the mailing list, if you want more updates on broadband for all. So, we have a section here where we are tracking some of the progress on the initiatives. I'm just going to highlight the action plan progress tracker, because that does include some of the items that we've already talked about here today, which is around permitting, state properties and efforts that are in support of the middle mile initiative and the Last Mile initiative as well. So you'll see what the status is, and what the progress is. If you're just dying for more information on that, you can always click on that to expand it, it will give you more information on what the actual requirements of the action plan are. So, one of the areas that we're really excited about here is for partners, and this is an area that is for all broadband for all partners, ISPs most certainly included in that. Currently, we have an area that is for broadband planning. What you'll see is that this is again, as Scott said, kind of our initial version of the portal, it will continue to iterate, grow, expand with help from our partners. And, currently we've got some toolkits and resources on here, broadband implementation and sample plans. And these may be of interest, these are plans from communities, cities and counties, regional consortia and we will continue to expand those as well. We have digital inclusion tools, digital skills training tools, and again this is something that we want to build out with help from our partners, so if you happen to have a program within your company that helps folks with digital literacy, that somethings

that we would love to hear about and we would love to be able to link in share. As we're looking at some of the other things for partners, we're gonna look at funding, we have a funding database, we are in the process of getting this updated and this will be updated on a regular basis, but it enables you to kind of search by the availability of funding, depending on what it is you're looking for. Provides more information on that… and then you're able to actually go out and look at what the application process is like. The affordable service programs. This is a tool that we've partnered with Everyone On and the California Emerging Technology Fund to provide for our partners. I'm gonna give an example of a zip code here, you type your zip code in, this is my hometown in the rural Central Valley, so I'm going to click on Kingsburg, right off the 99, finding some offers. And so I'm going to go through and select some of these options here. And as we're doing this, it's starting to bring up affordable offers in our area. Now we are highlighting the affordable connectivity program as the very first offer that's there, because we know that that applies across the entire state. It's not ZIP Code specific. And in many cases when partnered with a lot of the low cost and affordable offers that you are providing for consumers and residents, it can zero out a household's monthly cost. So I wanted to highlight that, and it's just showing us what's available in that particular zip code, including device offers. So, thank you all for participating in the ACP. If you are not seeing your name on there, and you know that you're providing in that area code, just let us know we can kind of working on getting up there so that it's reflected accurately. We also have an area that is about the history of broadband for all, this is something that you can kind of take a look through, Scott touched on this in some of the opening slides. And then certainly if you need to get a hold of us, please come over here, use the contact us, we do check this, we will follow up, if you have any questions, if there's something that you're looking for on the portal, and we're not seeing it, let us know and then we'll follow up with you. So, Scott, I'm gonna hand that back over to you. And thank you all.

Thank you, Laura. Just want to say really congratulations, and a good job to you and the team and the various staff at the other state agencies who helped put this together. I think, we intend for it to be a useful tool, and not to supplant or replace, you know, other efforts that are out there, but to really serve as a central of location where folks can find information about, you know, the broadband work going on in California. And do want to just reiterate what Laura said, we intend to iterate this, and really want to underscore that we would love your feedback on how we could make the portal more useful as a way to communicate and share information about what, you know, ISPs and your organizations are doing to promote broadband deployment and adoption throughout the state. So, thank you, and that concludes the update on the Broadband for All action plan, and I want to turn it over to my colleague, Mark Monroe.

Yes, good morning, everyone. Thanks for participating. I'm the Deputy Director for the Middle Mile broadband initiative. So happy to … kind of talk through where we are with the project so far and how we got here. Move on to the next slide. So I think most everybody will be familiar with SB 156, it was passed and signed last July 2021, it provided $6 billion over three years to really close the digital divide. To expand broadband infrastructure, increase affordability, and enhance access, that included $2.75b for last mile infrastructure grant programs and supporting programs of the Public Utilities Commission. And that included $3.25 billion for the California Department of Technology to develop an open access middle mile network throughout the state, largely built along Caltrans' right of way and using the state's existing right of way. Next slide. SB 156 articulated roles for several different entities. Obviously CDT has been charged with the overall middle mile broadband initiative, it specified the Public Utilities Commission to identify the unserved and underserved locations around the state. It specified a role for a third party administrator to kind of, manage the development of the overall network. And we have an agreement with Golden State Net, who has experience operating a network, they are providing that lens in terms of building something out that can be operated to provide middle mile service. As we mentioned, a large role here is going to be for Caltrans, who has experience building projects, and has some experience actually building middle mile projects, and they'll be doing the majority of the construction along the state highway system. And then of course, the Department of Finance is there to make sure that we're following the budgets, budget implementation rules, and that the funding is being used in the right way. And that's what we'll get to here, the funds appropriated for this project are federal funds, state and local fiscal recovery funds. And the department of finances is heading up reporting to the US Treasury on the use of those funds. So, when we established the middle mile advisory committee, we set up three guiding principles: one to obviously provide affordable, open access, middle-mile broadband infrastructure to enable last mile network connectivity throughout the state, you know middle mile in and of its self provides connectivity, but getting a middle mile alternative to last mile providers so they can actually provide that link up to homes, businesses and communities. Number two, building the network expeditiously, leveraging existing infrastructure, you know there is existing infrastructure in the ground, so the idea is that given the funding available, to the extent it's insufficient to build out the entire network, we would look at the use of existing infrastructure to fill in the gaps, and then, the third is to prioritize connectivity to unserved and underserved communities, including community institutions. And so, by the support of the Public Utilities Commission assessment and the public process that the PUC did last fall, really comes into play in terms of helping us target where the network needs to be. Next slide. Now this infographic here explains kind of the stages of the project that we'll roll out here. As I mentioned the Public Utilities Commission, we really focused on providing their initial input and gathering public input last fall, they produced a map with that input on it last December. Similarly, CDT has been working with Golden State Net Caltrans' engineering and design, and continues that work right now, and as we roll out with identifying locations, Caltrans can begin its preconstruction process. And Caltrans preconstruction processes, with all the permitting and design and environmental

work, needs to be done. Just really…..takes a lot of time, [inaudible] so we're trying to, it needs to be completed within two years so that we can spend the funds and get the project moving within the time frame required by the federal guidelines. Next slide. And this slide kind of shows here that the $2.25b that was made available in 2021 is really going to be spent in the out years. Right now as we design and develop the program that's, we have relatively low expenditures, but as we move to having Caltrans engineers do the pre-construction and the planning of the system, and we move out to construction, that's where you'll see a real ramp up of expenditure as we move through 2023 out to the completing to 2026. Next Slide. So as I mentioned before, the $3.25 billion that was appropriated in the budget package in 2021 are federal funds on federal guidelines require that ARPA funds must be encumbered and are under contract by December 2024, and they must be liquidated and spent and the project completed by December 2026. And so, given the initial estimates of what the project will cost per mile, the initial estimates were that we would be able to build 6,000 miles with SB156, um, but largely expects the state to build as much as possible, but with the understanding that to the extent that the funding isn't sufficient, the gap as I mentioned before, we can use IOU leases to close the gap, it was originally estimated to be a network that runs about 8,000 miles. Next slide. With that I'll turn it over to Erik Hunsinger at Golden State Net.

Thanks Mark. And thank you, Scott and Secretary Tong, I appreciate your time here today. Next slide please. So, we're collaborating with the CDT and the CPUC and Caltrans, we have a general goal here as Mark, Mr. Monroe noted, of developing in ground infrastructure that costs the state [inaudible] and we need to prioritize unserved and underserved areas as well as extreme socioeconomic requirements, like Los Angeles and Oakland. There are networks across the state that we can collaborate with but the state has a top of priority of constructing first. And there are reasons around that and I'll discuss them shortly. We developed ….five regions, you'll see in a moment, and then we'll review the optimization process. Next slide please. So, as I mentioned earlier, there's a number of risk factors in consideration for the network, including environmental hazards, fire, and geography, mountainous areas, areas through the central valley, and then open areas, so really diverse set of factors to consider in the construction. We started with the CPUC's recommended middle mile map which identified areas of need according to households. And then we applied a topological approach using rings, telecom rings, in order to create redundancy and resiliency. The goal is to get within 50 miles or less of unserved populations with the idea that developing a flexible network would allow the last mile initiatives to expand on the foot print and that's connected to the internet and the larger telecom world. Next slide please. So, the top priority is working with Caltrans. Caltrans runs a sizable organization that is well versed in budget management and procurement, and so through their auspices and their vast real estate rights of way. It's a natural opportunity to develop a statewide middle mile network. So, as we analyze the routes and the funding available, we'll work through how it might build the entire network, and there may be opportunities to collaborate with commercial entities to reduce the time to market

and construction costs. So we're gonna aim for some early wins to meet some expectations, of the residents and policy makers, we'll utilize the best practices that the telecom industry has in place, cutting edge technology of conduit, boring and trenching and putting in a large fiber count to meet the expected demand of constituents. So as we go through some initial routes that we've proposed, we need to optimize the design potential. We're going through an analysis with Mr. Mark Monroe and Mr. Scott Adams to evaluate where it makes sense to build versus buy, and we're also looking at joint build opportunities with carriers who have plans throughout the state to construct their own network and collaborate to reduce the overall cost of construction. So in that optimization process, we'll be working to maximize the number of miles in the newly constructed network, and minimize the cost wherever possible, there are some top priorities that the CPUC has set, non-county specifically where there's a desperate need for broadband because network hasn't been feasible commercially to install, so we'll be focusing on areas that commercial carriers have not been able to justify construction. In addition to that, we want to make sure that there's flexible network design, so that the overall network has a future proof approach to inter connecting and collaborating with constituents. Next slide please. As Mr. Monroe mentioned before, we divided the overall state into some general regions in the Caltrans districts here are noted. So region one, this isn't in any particular order just north to south is how we're reviewing this, but region one is a vastly underserved area, and prone to fire, avalanches and heavy snow. So there's quite an environmental impact on networks currently in this area. And so undergrounding in this area is a top priority. In addition to the opportunity to develop a network, we have been working with two of the largest tribal nations within the state of California and that would be the Hoopa and the Yurok tribal nations, both have indicated that they were willing to collaborate with the state in some fashion, and so we're working through the details of what that might be like. It's interesting because in addition to that, Siskiyou Telecom has indicated their willingness to cooperate with the State in constructing network underground, and the important piece here is that there's multiple entities coming together to solve the regional connection. So Siskiyou telecom has their piece of construction that they're looking to do, the state can collaborate with them, and then the Hoopa would be integral into tying that regionally throughout the network. Next slide please, here you can get a look at the region and how Caltrans districts break out across the region one and region five. Next slide. This is the UC's analysis. Here you'll see concentrated areas…. This isn't geographically focused on underserved areas, it's a concentrated area showing desperate need in the particular area, as well as the aforementioned tribal [inaudible]. Next slide. Originally, in the early days of collaboration with CDT, we had defined some projects that we believed could be a top priority as well as an opportunity to work through various project solution types. But we quickly moved into the next phase of the development of the network. Next slide. And here you see, the proposed ring topology throughout the state, we're still evaluating costs and route appropriateness, and then we'll be, as Mr. Monroe noted. Evaluating IRU potentials in certain areas and joint builds in certain areas. We're not precisely certain where those are because they have to be, covered on an NDA but will be working with carriers on strategic situations if it makes sense for

the state. Next slide. And here, just a bit more detail with the CPUC priorities overlayed on the recommended routes. And I believe we'll move to region two after this. Next slide. So again, in region two, moving south, sparsely populated, mountainous regions, fire risks, affordability and socio economic factors do weigh into the next region because California is a large state with a diverse set of requirements. There are some joint build opportunities here and we would need to analyze partnership with them on some of these routes. Next slide. So here's how the Caltrans districts lay out, you can see the Bay Area's included in this region. Next slide. Of note here is that the Eastern Sierra is sparsely populated, but strongly prioritized by the CPUC in their analysis, also the central valley, right there you see top priority of households unserved and the need to develop infrastructure that's affordable for that area. And surprisingly, one of the most technologically advanced areas in the world, the Bay Area, a strong need for affordable options to connect the constituents of California. Next slide. And here again, the original 18 recommended routes, which is a combination of leveraging existing backhaul over to the state via the Calrem network or an IRU on those routes, as well as proposed construction and then as we move through the process of analyzing where we would want to construct, the next slide will show some interconnect in this. Please next slide. Thank you. Here in a bit more detail, tighter reigns, broader topology of construction to meet the demands and put in the fiber count that would be more meaningful to the constituents of California. The next slide will show how the CPUC has prioritized this area. Thank you. Next slide. Region three is further south, it includes, again, sparsely populated mountainous regions, and high risk fire zones, areas again that commercial entities haven't found productive to their business plans so the state's taking it upon itself to prioritize construction. And included in this areas is another large tribal entity, the Tule River Tribal Nation, and then there's some opportunities for joint builds here as well. Next slide. That's fine, thank you. So populations, areas of need, you can see the concentration kind of through the central valley, sparsely populated along 395 here. I want to point out that we are collaborating with digital 395 networks to evaluate how we might work on their network, so they've opened up their rights for consideration by the state. In addition there's on the coastal region on San Luis Obispo, large areas of desperate need for broadband. Next slide, please. You see here again the original 18 proposed which is a mixture of construction in existing network. Next slide. As we analyze the Caltrans right of way proposed routes for potential build, as I've noted. We are evaluating carriers in this region. Next slide. And here is the CPUC recommended… some of the areas that the CPUC recommended are very close together so the recommendation by the TPA is to build a somewhat larger ring of 50 miles. The idea is not to skip over these areas, but to get the middle mile in place most effectively, and then as CASF grants are made for last mile initiatives, or communities can find other sources of funding, the flexibility of interconnecting is possible. And I didn't mention that earlier, so let me describe the topology very briefly, here. If Caltrans is able to construct this network, and they choose construction over buying, then we'll have the ability to interconnect about every 2500 feet. We are making it accessible that way because of the philosophy of putting a ring cut anywhere in the network that would be available for last mile interconnection. Next slide. So region four, again densely urban area, also very

sparsely populated rural area, surprisingly, you'll see that here in a moment. In addition to that, we are evaluating Broadband needs on Catalina Island, and then we're looking primarily at socio economic factors and then areas where commercial entities have not been able to justify construction. Next slide. Also surprisingly, most people, when they think of Los Angeles, their first thought is the city, but there are rural areas in need in this area. So, here are the Caltrans districts. Next slide please. And the operation, while there's numerous carriers in the area, there are a number of socio-economic factors that are preventing broadband from reaching constituents in this area. Next slide. So here is the original analysis of existing network and then CPUC proposed routes. Next slide. And then interconnecting the routes, and leveraging Caltrans right of way to build a much more robust middle mile connectivity, pick up many parts of the region that are in need, and there is a potential that we might find ways to interconnect Catalina island and commercial relationships. Next slide, and I think we'll move to the last region, Region five, next slide please. Here, again, diverse set of requirements, mountainous areas subject to extreme heat and fire, as well as urban in need of some sort of broadband relief, and a significant number of tribal nations, and I apologize to any tribal entities that might be listening in, too numerous to name. So we're looking for services, affordability... next slide please. So San Bernadino County and Imperial County as well as San Diego County, very large areas, very diverse set of problems to solve. Next slide. So here we have, again, a look at the population, CBT and the CPUC have both indicated it isn't the size of population that we're tackling, but this is turning somewhat the idea of commercial networks upside down, but it, it is every region that is unserved or underserved. Next slide. Here was the original proposal of projects, it was never intended to be a complete network until we went through further analysis. Next slide. Here we have more coverage, there is an interesting opportunities here because, one area of collaboration was with the Coachella Valley association of governments, they came to us early in the process to collaborate and do a joint built with them. I believe release their RFP for construction which would include collaborating with the state of California in creating the network there around Coachella valley, and the proposal is to connect this past the sea down towards the border. And then, on the eastern portion, numerous tribal entities would benefit strengthening the broadband capabilities in the region. While I'll also point out that major portions of this in the northern portion of this region, underserved areas, but there is a strong opportunity to develop commercial partnerships with perhaps mobile carriers that are interested in this region as well. Next Slide. And there is the CPUC overlay. Next slide, that's a snapshot of where we are today. This is not a final map, we're still working through the evaluation of these routes with the CDT and the CPUC, and so as we optimize the routes for construction and budget, as well as IRUs, many of these things will change. Thanks for your time, I'll hand it back to Mr. Monroe. Thank you.

Alright, very good. Um, really appreciate that presentation, and you know, Golden State's and its partnership and it's project, a lot of good information here. Next slide. I think, you know, what we kind of want to highlight going forward here, is, that Mr. Hunsinger noted, we are, uh,

this is not the final map. We basically, you know, the assignment from CDT's perspective, and the kind of approach we want to take is, taking the Public Utilities Commission's initial map, and the input provided, and then overlaying that with a look at, if we were to grow the entire network, where would we even fit? Right. We may not have funding, as indicated earlier, to build the entire network. But what if we were, what that is going to allow us to do, is get Caltrans to start, what we've initially identified as 18 to 24 months of pre-construction work, that would need to be done before we could start construction. And, you know, doing the math on that, that puts us into at least halfway through 2024, with all the contracts needing to be signed by the end of 2024. So, we're hoping to see some earlier progress on some of these, but the idea again, is to, take this map, and then CDT is in the process of kind of doing an assessment to see what you know, comparing this map to the Public Utility Commission's map, and see if there is a broad universe of what we might need Caltrans to actually design, and get them started, get their clock started, in terms of doing their pre-construction work, and then while we have them doing that, we will continue to look at where these alternatives are affordable, where they exist as Caltrans goes through its pre-construction process, a component of that will be refining the cost estimates for the network, which is then going to inform us about how much we can afford to build…um, and kind of where, how much, we'll need to…how many miles of leasing of existing infrastructure we will need. And then, a third point is, we have, Golden State Net is working with some other partners, the Broadband Equity Partnership and CDT to do a market sounding, so to the extent that we have to make something, we're going to be making some choices regarding where we build, versus where we lease, I think, generally speaking, we assume that building, when we build we're going to be [inaudible] account fiber is kind of the base, and so that's enough fiber to potentially be doing some level of dark fiber use, then make sure that, as we, as we look at, as we look at where build versus where we lease, we need to take into account what the need is going to be for dark fiber IRUs, obviously not everybody is interested in them, and not every region could benefit from them. So, that's just another layer that we have to put on top of our assessment. So, that's kind of our plan going forward here, taking what GSN and PUC have given us, and getting Caltrans started and then doing some of these other processes simultaneously,

to better clarify where, where it's going to make the most sense to build versus where it's going, where it's going to make the most sense or necessary to lease. I think we can go onto the next slide. Turn it back to you, Scott.

Thanks, Mark. Thank you, Erik. Next up on the agenda is Robert Osborn from the Public Utilities Commission's gonna provide an update on, Last Mile Program's and PUC's [inaudible]. Rob?

Good morning, and thank you for allowing me to provide an update on the CPUC's broadband activities. I'm Robert Osborn, Director of the Communications Division of the California Public Utilities Commission. There is a lot of information here, so if we run out of time to answer your questions, I'll be happy to follow up afterwards. The broadband legislation passed last year demonstrated the state's serious commitment to closing the digital divide by leveraging federal recovery funds to start the statewide Open Access Middle Mile Network that has just gone through. And to fund the Last Mile Broadband Networks. The CPUC responded quickly to begin implementing this historic legislation by

[inaudible] the various funding programs, the CPUC into two critical rulemakings. One is the California Advanced Services Rulemaking and the other one is the Broadband for All rulemaking. The next slide please. So, the broadband investment, this slide provides an overview of the various broadband initiatives, in which the CPUC is involved, last year's legislative package was to begin, I'm going to summarize a group of last mile initiatives and then I'll drill down into some of the more relevant programs on later slides. So first, we have the Broadband Technical Assistance, sometimes referred to as Local Agency Technical Assistance. This is $50 million dollars of aid, and the purpose is to help prepare local government and tribes for broadband infrastructure. The second is the loan loss reserve account. This account is created to enable outside finances for local governments and nonprofits for deploying broadband networks, at $750 million over three years, third is the federal funding account, sometimes called the Last Mile account which as two billion allocated over three years. And then finally, the last California Advanced Services Fund, which includes a number of sub accounts or separate programs that address broadband needs in a variety of areas, including adoption, which helps people who have infrastructure to get broadband, connectivity in public housing and other low income communities, funding for region planning and expert consortia, and a legacy infrastructure grant program with some statutory differences from the federal funding account. And the box on the right summarizes the CPUC's contribution to the $3.25 billion Middle Mile Initiative, the Department of Technology which Mark and Erik just provided an update for. Next slide, please. So, one of the challenges facing not just California, but the nation as a whole is having a standardized deployment in areas where an industry is unable to justify the investment due to insufficient revenue, or high capital of operational spending. During the 1930s, we solved this problem with, this problem of electricity for all with the Rural Electrification Act, and we solved that with providing telephone service through the Federal and State High Costs Programs. The circumstances today are different, broadband is deployed in many areas, but we still have some communities without access or sufficient access. And because of this, broadband policymakers are pursuing new deployment models. So, the key point here is that there's no one-size-fits-all solution, so we put a number of different models up here on this table. So the table, categorizes various levels of public entity involvement along the value chain in a broadband network in ways that may be helpful for grounding discussion about last mile programs. The table is from the white paper published by the nonprofit US Ignite. The table goes from fully public in row one to full municipal broadband, to fully private down at the

bottom in row five. Columns divide the type of work that can be assumed by either public or private entity over the course of full network development. So you see the blue, the blue shading, ourselves, a public entity does the work. And the gray shaded cells denotes a private entity. I want to highlight two points about this table. First, I want to note that to the bottom row the full private provider, the public entity still manages the Rights of Way and utility infrastructure as we have, we do in California. This is stating the obvious, but public entities do have a role in broadband, no matter how it's deployed. Second, the right-most columns list the example cities that have been deployed broadband, and you'll see in row four, Fullerton is a California example where a company called [Skyline] Network built a privately funded, service based, competition network. So, this is one where a private entity owns the infrastructure, and the infrastructure acts as two or more internet service providers who compete for customers. This is referred to in the chart as the private developer open access. Recently, the CPUC hosted a workshop and we had a panel discussion on municipal broadband and I'll be happy to provide a link to that video, so you can see the discussion on that, we had some interesting viewpoints and input on that. So now I will move on to describing some of our specific last mile programs, but as we're going along please keep in mind that one or more programs I'll describe can support your jurisdiction's work wherever you're operating, listed in the chart so keep thinking back to this public private broadband model slide. Next slide, please. So the broadband package tasked the CPUC with awarding $50 million in technical assistance grants to public entities and nonprofits to help them prepare to provide service in their communities. A local agency is broadly defined in the program rule, that may be a city, a county, including a county service area, it may be a community service's district, a public utility district, a joint powers authority, a local educational agency, a sovereign tribal government, an electric cooperative, so, as I'm referring to rules if you want to learn more about that. Individual grants are to be no more than $1m per applicant, and there is an expedited process for requests of $500,000 or less. The funds can cover a range of pre-project costs to deploy last mile broadband infrastructure, including environmental permitting, needs assessment and strategic plans. The next steps for you to be aware of: the CPUC will hold webinars and post videos to present the project application process for eligible entities, these are targeted for late May and early June, with application windows opening in June or July. Think about what work your jurisdiction, wherever you're operating, to the extent that you will be working with local agencies, how they can prepare for these programs, how much of this can be supported by a technical assistance grant. Next slide. So, the Loan Loss Reserve Fund, the broadband package committed $750 million over three years for the Loan Loss Reserve Fund. The purpose of this fund is to equip local governments and nonprofits in securing financing, so that they may build up their own last mile infrastructure. The Loan Loss Reserve will provide collateral for local governments to enable better borrowing rates and terms for bonds issued to deploy broadband. Look for a CPUC straw proposal to be issued before August, and workshops to collaborate on the practicalities and details of implementation. There will be an option to provide comment on this [inaudible]. If you plan to apply for a Loan Loss Reserve Fund grant, please [inaudible] consider becoming a party to the proceeding so that you can

share your expertise to help us on the rules and implementation of the program. Next slide, please. The federal funding account, this is the Last mile program. And the CPUC adopted program rules earlier, actually, in April, April 21st was the voting meeting. The rules included an allocation by county out of the $2 billion tranche for last mile. The CPUC targets existing applications by July of this year to look for data for interested applicants on priority or presumed eligible areas in the coming weeks. The data will be published on the Commission's website, as well as distributed to the service list for the two proceedings as a particular layer. And as the last bullet notes, it's a good time to begin planning for these applications. Public entities can evaluate activities for technical assistants grants to support federal funding account broadband work, and want to emphasize that the local agency Technical Assistance Grant is not a prerequisite for this, so you don't need to have that grant before you can apply for the federal [inaudible] account. Next slide, please. So, for over half a decade, the California Advanced Services Fund broadband grant programs have supported a range of broadband investment. The program was updated and reinvigorated by a number of legislation last year. A proposed decision is up for the CPUC to consider, actually next May, next week, sorry May 19th, that modernize the program rules for a number of longstanding programs. For example the adoption account which was [inaudible] last December and awarded 212 grants for adoption projects, 179 grants for digital literacy, public housing or low income communities account, 128 public housing grants were awarded as of December last year, and that was for adoption, and 322 public housing infrastructure grants were awarded. And also the consortia account which funds the regional broadband experts that are currently in place today. A proposal on the infrastructure grant program is expected before the end of the second quarter 2022. So actions you might consider include joining the distribution list, or the service list for the CASF, California Advanced Services Fund activities, which is how grant timing and applications will be announced.

And potentially engaging with this commission to inform the implementation of these programs, such as becoming a party to the CPUC rulemaking. And that rulemaking, just for reference, is rulemaking 20-08-021. Once again, rulemaking 20-08-021. Next slide. Public housing grant, Public Housing Account Grant Program provides funding for the cost of inside wiring or connectivity that a public housing development. Among other changes, the proposed decision would update the delivery speed requirements, and would increase the amount of funding that may be awarded to a project under the [inaudible]. The proposed decision would also make low income housing developments eligible for the program. And there were also changes that will make it easier for [inaudible] regard to timing as it shows on the slide, we're targeting applications for June or July of this year, and actions assess broadband needs of public support, the publicly supported housing community to prepare application so to the extent that this is applicable to this audience, this is an important point to make. And the next slide please. So this is the last slide of my presentation, is just really a public service announcement as part of our outreach efforts, the CPUC is conducting a survey to assess community broadband access and broadband needs and interest in state grant programs, which is something we have up on Survey Monkey. Survey responses will inform the

program development and outreach, and encouraging everyone to partake in the broadband survey, the survey for local government by May 30th. The link is here at the bottom of the slide. And this concludes my remarks. Thank you, back to you, Scott.

Thanks so much, Rob for the great work the PUC is doing and such detailed information. I'd like to introduce our next speaker panelist, Sunne McPeak and Susan Walters from the California Emerging Technology Fund.

Thank you Scott. I think it is really worth noting that you at the California Department of Technology, and the California Public Utilities Commission, and now with this Caltrans ISP semi-annual meeting we're talking about deployment and adoption. The goal is to get people online and connected so it makes it their lives easier and they can save money. And we can also reduce impacts on the environment. And so, this is really important discussion in the context of working with all of you, the internet service providers, many of whom might have shared with us, that you're thinking about if you're going to deploy into a given area that is high need, unserved, that you want to couple your efforts on deployment with your work on adoption. And so we're going to talk today about how we can work together on getting everyone connected. We are going to focus on, as you've heard Laura Sasaki earlier, the Affordable Connectivity Program, so that we get the federal government dollars flowing into California. We also want to note that most of the ISPs also have their own affordable offers to continue to make residents aware of. We have a panel that Susan Walters is going to lead, Susan Walters is our senior vice president. Over the last 15 years she's been has been responsible for working with a network of over 100 community based organizations and public agencies have trained more than a million people in digital literacy in California, and have gotten signed up more than 500,000 households, documented adoptions connecting people to the internet, and so this conversation is really about how we all can think, in terms of as we deploy, what we also need to be doing to engage all the stakeholders around adoption. With that let me turn this over to our senior vice president Susan Walters.

Good morning everyone. If we could have the next slide. We have lots of great information this morning and it is really a testament to the level of collaboration that is going on, and that will be needed continually as we go through the process. Let's go on to the next slide….I think many people on the call know the affordable connectivity program, or as the we describe it, ACP. But for those who are less familiar with the details, briefly, it's $30 a month unless someone is on tribal lands it's $75 a month, the eligibility ranges widely and is consistent with Lifeline in California and those requirements. One precedent setting program rule with ACP is that a customer that is currently on lifeline, meaning they've been approved for the Lifeline program. They do not need to complete an application. They are automatically qualified for ACP, and

can contact an Internet service provider and let them know they're a participant in lifeline and want to subscribe to another internet service. We are engaged as Sunne said with lots of organizations around the state to help get the word out. As we have been about different affordable offers we know cost is the number one barrier to why people aren't online, and why people go online and offline. So we are fortunate to have this ACP benefit to work with and to really seek other partnerships, as so part of the partnerships we're seeking are the qualifying agencies that run programs you see listed here under eligibility. So there's a lot of opportunity to work with agencies and these programs, and county, generally local government and income institutions. Let's go on to the next slide. You'll see here, for the state of California, the Broadband Council has set a goal of enrolling 5 million households you see the different timeframes and percentages. In fact, there are six million households that are eligible in California. And our goal will be to five million. The broadband counsel has supported a number of different strategies. You'll see them listed here under Plan of Action. Part of what we are doing, here today, of course in terms of talking with the roundtables, and getting the word out about what ACP can do, can help us put the word out about it and how to engage. So a lot of what we look at is raising awareness, but also getting a state local agencies to promote, because they are a credible source and distribute information and then engage our trusted messengers which generally we refer to as CBOs. But there are lots of folks who can get out, you know, messages. We also have you know, we begin the process of course, of raising awareness in the marketplace and we're hopeful that ISPs can join that effort as well. Let me go into the next slide. A few things we know about ACP as the successor of the Emergency Broadband Program. This number you see for enrollments includes both EBB and ACP, So 1.4 million households. That already exceeds the number of folks enrolled in lifeline and this… one thing that we are realizing is we need to better promote the value of home internet, 70% of those signing up for ACP are using it for mobile. So that means when they leave the house, the rest of the folks in the house don't have internet, because under lifeline, it's just one mobile phone per household. So we really have to help people understand there's an opportunity to have both mobile and home internet with the assistance of the ACP. And just to see the numbers again, in a little more detail on the bottom, for the US in California. And then off to the right, there's a screenshot of a map that Cal State Chico has put together their GIS with us. They're working with the California Department of Technology now to really, put that in a usable form for the entire state. It will become part of the Broadband for All portal, and it will be a resource to everyone because it will let you know by zip code and by county, the number of eligible households, and then the number that have actually enrolled. And so that information will be updated with the reports that USAC issues. And so we will keep it as current as the numbers we have from USAC. Looking forward to that and hoping it will be useful to you as well. Let's go on. Today, we're going to hear about…. some of the activities that are going on to raise awareness. So we'll hear from San Diego first, and describe their effort is really organizing with all possible stakeholders to talk about what they're doing. And then Siskiyou telephone is here to talk about what they're doing. So… let's go ahead and Chris I believe is here and ready to go. You'll hear us talk about some themes and the importance of really

using both paid and earned media and working with many different departments and agencies, with local government, in the community. And I think Chris's program really demonstrates this very well. So Chris, you're up.

Thank you so much. Thanks for having me, first of all. If you could put up my slides, that will be a good start as well. For those of you who don't recognize my name, Sunne mentioned it earlier on the call, I am Chris Smith, from Caltrans….

In the region of all kinds of different services that are available and it's really key that they are trusted messenger within the community that if you call you're going to be speaking to a live human being that can really walk you through what you need to know. And notice it's a phone call, it is not an internet issue in terms of accessing this information. Most people will still have access to a phone call. And that's a great way to get hooked up with information. So they're tailoring their programs beyond just providing referrals, but we're making sure people are getting the kind of help that they really need. Whether it's internet service, whether it's the information about public WiFi, whether it's about getting a discounted or free computer, but also about education and training in terms of adoption and literacy. Those are all services that are available in the community. We just need to spread the word more and 211 is just a fantastic way to get the word out about them. Next slide please. So we're also developing an outreach strategy that really is the kind of ubiquitous outreach that we do for many things that we market in the public sector. On the right hand side is something called the Youth Opportunity Pass, which we're really rolling out in the region to provide free transit to everyone under the age of 18. That's a huge thing in our region, to get young people to ride transit. And obviously it's a similar challenge. We need to market the opportunity, we need to make sure they understand what they need to do to sign up for the new project Pass program. And so we're taking the lessons learned from developing outreach materials from that campaign, and applying them to ACP. Whether it's print distribution, getting things in people's hands, doing direct mailers that can really get right into the mailbox, working for community events, especially focusing on student based events, at the start of school, and direct advertising whether it's bought or paid, we need to make sure that the word gets out, and that the local media supports this rollout as well. So we're really trying to make a big splash like we typically try to do with all of our marketing campaigns. Next slide. So in terms of overall, all the effort that is embedded here is also supporting the regional digital equity strategy and action plan that was adopted. So very similar to what Scott mentioned as the statewide action plan, we have a regional action plan as well. That is actually my job. Is to see that that gets implemented. And we want you to join us and connect with us. There's lots going on, we've done a great deal already. ACP is one aspect and I want to really highlight ACP is just *one* component, a very important component mind you, and it's an early win, but there's so much more to be done. And we really want you to connect with us. This plane is something that

others can also borrow from, and take a look at, structurally it's very sound, it was not developed by some highfalutin and high-minded people but really a group of stakeholders whose voices and issues are clearly represented in this plan. So welcome your feedback and reaching out, and feel free to call or email me anytime you wish. Like I said, I've got lots of perspective, lots to say on this topic and I'm very passionate about it as well. And I really want you to join us in the effort. I know, a number of the ISPs locally have already pledged their support of ACP. We hope that will be the case with the implementation of the overall strategy and action plan as well. With that, back to you Susan.

Thank you so much, Chris. And you're absolutely right: the goal really is about digital equity and the ACP is one piece of it, an organizing piece. So we are going to go on and hear from Russ Elliott, the CEO of Siskiyou telephone and they also have a broad approach to broadband. Russ?

Okay, thank you, Susan. Good morning. Everybody can hear me give me a thumbs up? Awesome. Fantastic. It's good to be here. I too am enthusiastic about broadband and equity and inclusion, Chris. So I'm excited to be here today, and I want to thank Scott Adams and his team and Caltrans for the invite today to collaborate and I also want to take a special moment to thank Erik Hunsinger and the Golden State Net group. You know, they continue to say Siskiyou telephone and all the things that they do, but it has been truly a partnership and collaboration and private and public partnerships are going to be the key. You know, as we heard from Mr. Osborn earlier, you know, he showed a bunch of models in broadband and you know, there is no silver bullet, it is going to be a shotgun type approach. And you have to look at the unique locations and what's going on. And I'm excited to share with you a very unique part of the state, and one that I'm relatively new to because I've only been here about six months but… Northern California, very northern California and Siskiyou County and especially Western Siskiyou County where Siskiyou telephone, sets up shop and serves, is obligated to serve the 4400 folks of Western California. So I'll go ahead and take that first and kind of show you where we're at, and what we do. There we are that we're up in that corner up there, way up there in Northern California, People talk about Northern California and say, oh yeah San Francisco, you know, Oakland. Northern California. I'm here, Southern Oregon, Northern California. So anyway, it's a very unique area. And, you know, as you can see, we serve a pretty large territory of a very diverse terrain and, and folks, so I'll share more about that in just a minute. You know, our area doesn't have the luxury of having a bunch of anchor tenants to offset our costs. You know, there aren't a bunch of big paying commercial providers for commercial opportunities up here. So, you know, truly it is a rural area, an area of high cost and we believe because people choose to live rurally, whether it's by choice or by ethnic background or, or, by, by generational, you know, participation. You know, they don't need to be marginalized, they shouldn't be marginalized. This is a one time, a once in a lifetime

opportunity that we're going to be able to set these folks up for success for future generations. So we're excited to be part of that conversation. So next slide. For those of you that don't know my background, I was recently the first Broadband Director for Washington state, where Governor Inslee brought me in to direct his broadband program up there. Prior to that, I was director of the Wyoming State Broadband office for Governor Gordon next. So in doing that, I you know, I was very aware of digital equity, and inclusion and stood up a digital equity inclusion office there as well in Washington. Well, I knew that was going to be a critical component, but I also developed this model that I think is very much, you know, appropriate for conversation that we, you know, we believe that, you know, my history is broadband, so I used to build networks and I got into the public service side of it. And what I found in the public service side is a lot of people like to talk about broadband. It's pretty easy to talk about, it's sexy to talk about too people like to talk about it because it makes you look good. Oh, it's important schools, health care, all that kind of stuff. But it's not easy to do broadband. And so, you know, it's a different story when you start to talk about the nuts and bolts and how you get it done. So, what I wanted to do is build a model that I think really kind of embraces how broadband gets done and gets done well. You know, again, it's multiple approaches multiple areas, it's gonna be unique to the area that you're looking at. We're very rural. So we're gonna be different than an urban area. But I think it all starts with partnership and planning, you know, and looking at the community, and those partnerships with the stakeholders. You know, we look to the state, we look to the Fed, we look to the county government, you know, immediately we've got your list of folks that we strive to partner with, we look to the community and start to talk to them. And then we start to look at the planning aspects of identifying what we're going to do, defining the details of how we're gonna do it, getting the shovel ready for projects together. And I'll tell you in a minute how this also applies to the equity inclusion part of it. Then we start to align the funds, whether it's our own personal funds, whether it's the funds with the state in partnership with the middle mile last mile stuff, whether it's the federal money that's out there, there's a lot of funding out there, so you gotta go, you gotta be prepared to pursue that funding. And then, you know, the hard part about this is building networks. And we've heard from Caltrans different folks about how they're trying to make life a little bit easier in this. This is a very technical game we play as we build infrastructure. Let alone the fact that we're also now looking at huge supply side challenges, and they're just at their inception. This is gonna get nutty, pretty soon because of the money. I mean, as soon as people start building networks, supplies are going to be challenging to get a hold of, the technology and the manpower to do it is going to be even more of a challenge. So building networks takes partnership as well. And to meet these goals and meet these timelines. There's some very unique timelines that we're looking at, that we're gonna have to do. But then, on top of all this really does sit that digital equity and inclusion component, which is the adoption, the affordability, the skills, the devices: this to me, is the most critical component that sticks around and sits on top of this and it's highlighted on the top of my pyramid for a purpose. You know, it's critical because you can do all this other stuff, but if you can't get people to adopt, you can't get people to afford it and they don't have the devices

or the skills to use it, it doesn't matter what you did underneath that. So this, this has gotta be the overarching, you know, concern for a lot of folks. So as a result, Siskiyou telephone is all in on this. We're all in. Next slide. You know, our service area is unique in that, you know, we are a frontier County. So, we have less than six people per mile. We are 80% core service. We've got 2400 square miles, you know, we've got only 4400 passes to those 2400 square miles. So we've got a very unique challenge to solve, a problem to solve, but we're going after it, and we're going after it pretty aggressively up here. We're about 60% fiber to the home, 60% committed already, excited to announce that you know, this company prior to my arrival, hooked up all of Happy Camp which is really the home of the Karuk tribe, and their Tribal Administration, all fiber to the home, everything up there. Then they were hit with that tragedy of the fire, which devastated about 200 homes up there. But because our infrastructure was underground, as was talked about earlier, because of the challenges of this area, we were able to bring those folks back up, and bring up the you know, as they start to repopulate and rebuild, we're able to be there, and you know, at their side and help that happen. There are no other carriers. There's no other competition in here. And so, you know, it is a big challenge to get people to understand the nature of this, and what we had to do. And, you know, our county, 49% of the folks are below the household income of California. So we see an affordability component here that's unparalleled. And as a result, we really do go all in on the ACP program and have since it was EBB. So we're, we were in before it was cool. So anyway, next slide please. So what we've done is we've gone out and we do a regular website announcements about ACP, we go and do community tech forums, where we talk about ACP, and EBB in those in those areas. And we went a step further. We went into the device side. We're one of very few folks in the state of this, in the state that have pursued devices. It's a little bit of a challenge, but it's one that we found immediately when we went and did some promotion on the device side, we've had monster demand. So much so that we ran out and we are we're in the process of restocking and resupplying that because our next set of devices are already spoken for by folks that have been excited about the fact that there is affordable device out there. That is a key component that people take for granted. Everybody believes they've got devices there. But there are a lot of folks in this area, they don't have the device, or the capability to take advantage of connectivity. As you start to talk about scalable, future proof connectivity. So we've got about proximately 20% of our qualified homes already participating in it. And our intent is to really double that number sooner than later. And we're going to be doing that through more community outreach. We've got customer appreciations that we do and in our, in our seven service territories. And so when we roll out to a customer appreciation, we're bringing agents with us, and those agents will be on site there to make certain that we can educate and get people engaged in enrolled in the program. So we're all in on this. This is probably one of the most critical things that we can do. Next slide, please. We do have the honor of being able to serve a couple of our tribes here in Northern California, the Karuk and the Quartz Valley tribe. And I'm also happy to announce that both of those tribes will be 100% fiber to the home by the end of this year. So we, we are committed to ensuring that those folks get the service they deserve, and we support their initiatives that are going on there. And in

an effort to do that, you know, as we are working with Erik and his team in Golden State Net on a middle mile project that will that will bring strong, robust, connectivity through to the Yurok and the Hoopa and the folks on down the line there to the west. So, we are excited just about partnerships. We're excited about, you know, learning from best practices as we can throughout the state. And again, we're just excited to be part of this. You know, this initiative and collaborate with the state, excited to see the state and its efforts to bring in all voices to the table. So thank you very much. Next slide kind of tells you who I am and where I'm at, right get a hold of me, if you if you need to. I'm up here in the woods. So, so you know, thank you very much for the opportunity today and sure appreciate this.

Thank you, Russ! Yes, the voice from the actual Northern California, and we so appreciate that you are all in, and really have been able to emphasize the importance of you know, planning all the building you want but making sure you are planning adoption within because at the end of the day that matters and literally you get it. You've been able, you're one of two companies that understand, you also have to have a device and as Chris was saying, it's not just ACP. It is also about the device and you're using that device benefit. That's part of the ACP program to really help people make that extra step to make it happen. So thank you both very much. I really appreciate the work you're doing and the model that you're setting so…I think we are done. Any questions and answers?

Thank you very much, Susan and Chris. I really appreciate you kind of driving and commentating our formal presentations on the state's broadband for all program, and just really stressing, and I know folks on this gathering know how important broadband adoption is to the to the overall conclusion. And I know a lot of folks here are focused on you know, structure, deployment and provisioning services, the adoption piece is so critical to getting folks that use the service that's already out there, and where there is a huge opportunity to partnership with this these guys and the ISP communities. We'll wrap up, this is the formal broadband for all roundtable portion of these of this event. Just wanted to drive home really the broadband for all, how the state uses programs to address and close the digital divide, and foster digital equity throughout the state. We've got the action plan it's really you know, a number of policy process you know, partnership development and identification of funding. You know, really thankful to the legislature and the governor for SB 156 and creating the funding to develop the statewide Open Access middle mile network to really address some of the cost constraints to getting last mile service out to some of the hard to reach and, you know, underserved areas and really the other component to that is, is the work that the PUC is doing on the last mile and adoption programs they are supporting to really get those last mile solutions out there, and then can never thank our partners at CETF enough for the work that they're doing

across the board and really being a champion of the Broadband counsel, for all things broadband but specifically now for broadband adoption and digital literacy and just knowing how critical it is to have a partnership at the state level but then, you know, with the private entities and local and regional partners so…it is my pleasure now to open it up to the follow up, sort of question and answer and listening session. Did want to just emphasize…

Mark, this question is first for you in regards to joint build opportunities. If you can elaborate more on how carriers might join in on that effort or participate?

Well, certainly we need folks to reach out to us, so we're kind of looking with a basis for the middle mile

you know, broadband initiative is, we've kind of designed a basic design structure, because it's going to allow us to provide 288 fiber, what we build and support the conduits we have, we have a model that will move forward in terms of design. But we need you to reach out. We have some decision criteria. We need to make sure we understand the mapping and we need to understand kind of, what any potential partners might be proposing in terms of their infrastructure where they, where they are in the process, we have to take into account, if they're going into the ground tomorrow for example, what would a partnership mean in terms of any permitting. That I think would be a concern for both of us. And then, what the system is done, what's the ownership status, what are the access points. We have mentioned that as we build, we're looking at vaults every 2,500 feet, repeater huts no more than once every 50 miles, right. That kind of provides a lot of access point. I think there's some, there's some certainly reach out, we've got some decision criteria that we're going to need to get information on. So we'll kind of set up a meeting to kind of talk through that, and see if there is a possibility to work together there. But, we you know, again, we've got to ….make sure that it works as a network, and that we have our design that we've kind of targeted towards being able to provide a certain level of service. And so we want to see how what the impact of data on that would be. But certainly the opportunity to we all know undergrounding, that's the biggest fraud. So when we look at any opportunities to share costs and to be able to bring that down … we're certainly interested in exploring those opportunities. And like I said, we'll have some initial information we'll need to gather to kind of do a comparison and see the benefits versus the costs.

Thank you Mark, and while we're on this topic of access and ISPs joining the process. Can you reiterate a little bit on the timeline in terms of an Internet service provider would be able to participate or use or lease the new routes that are being build?

So relative to the federal guidelines we have to start production by 2024, and we have to be done by the end of 2026. And so you we're really hoping to start ramping up construction as Caltrans… start to be ready to start going to contract in some cases in 2023 and 2024. You know, we'll have to.. that's the timeframe we're looking at, in terms of starting construction. But similarly, as we look, we're able to identify where, where we are going to need to lease versus build, I think some of those opportunities are going to potentially be sooner, to the extent that that infrastructure already exists.

Thank you, Mark. Let's do one more question for you. In terms of the project, there's probably a lot of federal lands that are across the state of California. So what is our process so far in working with the federal government on planning and permitting?

Well I'll say we have had conversations….

[recording stopped].