Middle-Mile Advisory Committee April 21, 2023 Meeting Minutes and Transcript

The Middle-Mile Advisory Committee met on Friday, April 21, 2023, at 10:00am PST via virtual conference.

Agenda Item 1: Welcome and Overview

CIO & Directorate Bailey-Crimmins welcomed everyone to the meeting.

Directorate Bailey-Crimmins introduced a new member t: Tasha Boerner, representing the 77th District, encompassing Carlsbad, Encinitas, Solana Beach, Del Mar, and the coastal communities of La Jolla south to Coronado.

A quorum for the meeting was established.

Member		Designee	Present	Absent
California Department of Technology	Director Bailey- Crimmins		X	
California Public Utilities Commission	President Reynolds		X	
Department of Finance	Chief Deputy Director Miller	Designee is Michelle Perrault	Х	
Government Operations Agency	Secretary Tong		X	
Department of Transportation	Director Tavares	Deputy Director Keever	X	
State Senate	Senator Gonzalez	(Ex-Officio Member)		X
State Senate	Senator McGuire	(Ex-Officio Member)		X
State Assembly	Assembly Member Tasha Boerner	(Ex-Officio Member)	X	
State Assembly	Assembly Member Wood	(Ex-Officio Member)		X
County of Monterey, District 1	Supervisor Alejo	Local Government Representatives	X	

County of Del Norte,	Valerie Starkey	Local Government	X	
District 2		Representatives		

Agenda Item 2: Executive Report Out

Mark Monroe provided the executive report out, focusing on execution phases, construction bids & IRUs and contract execution; to be detailed further in the presentation.

Agenda Item 3: Project Updates

- Mark Monroe provided the California Department of Technology's (CDT's)
 update of RFI² bids including IRU/leases and Joint Builds and also an overview of
 the project timeline.
- Janice Benton provided a California Department of Transportation update focused on, bid awards (JOC & CMGC), preconstruction progress (permitting and design), environmental progress, and delivery plan.
- Tony Naughtin provided the Third-Party Administrator update focusing on Indefeasible Rights of Use (IRUs) and how it will benefit the project in quality and cost-effectiveness.
- Scott Adam provided the California Department of Technology's (CDT's) update on stakeholder outreach.
- Robert Osborn provided a California Public Utilities Commission (CPUC) update focused on Local Agency Technical Assistance, a new FFA public map, California Advanced Services Fund grants received, and last mile broadband initiative funds.

Agenda Item 4: Public Comment

Public comments were made by:

- Len De Groot, Tuolumne County
- Mark Dinh, Metropolitan Transportation Commission (MTC)
- Gregg Dieguez, Midcoast Community Council
- Patrick Messac, Oakland Undivided
- Jason Circle Law Group
- Shawn Trento Anza Electric Commission (AEC)
- Dr. L. Ozeran
- Wally Baker Job First Alliance
- Stephanie Ramirez Zarate (Sen. Limon's office)
- David Griffiths Alpine County
- Kareem Weaver NAACP, Oakland

Members Final Comments

Assembly Member Boerner: Thanked all and echoed public comments. Would like to not redo any past inequities on this project and would also like an overview on what IRUs and what it means in the market for equity concerns.

Closing Remarks

Directorate Bailey-Crimmins thanked Committee members, staff, partners, and attendees and confirmed that the next MMAC meetings is scheduled for July 21, 2023.

The meeting adjourned at 11:47am PST.

(meeting transcript attached; video and presentation slides from meeting posted to Committee web site)

Transcript

MMAC Meeting - Friday, April 21, 2023

Liana Bailey-Crimmins: Good morning, and welcome. We will be calling the April 21st 2023 Middle-Mile Advisory Committee meeting to order. Before we get started, we do have a new member. I would like to welcome her. She's our newest member. She will be joining us shortly throughout the presentation. That is Assembly Member Tasha Boerner, who has a vast amount of telecommunication knowledge, experience and I didn't realize this, but she was obviously in the telecommunication industry. And she is obviously a strong advocate for addressing the digital divide. So, when she joins us we'll definitely have her give us a few words. She represents the 77th district encompassing Carlsbad in Sanitas, Solana Beach, Del Mar and the coastal communities of La Jolla, which is just south of Coronado. Today, the staff presentations will highlight how the broadband Middle-Mile initiative maximizes both Federal and State fiscal investments to deliver affordable high speed Internet connectivity at the fastest pace possible. How we plan to accomplish this is through Caltrans infrastructure builds, private and public partnerships, which include joint builds and buying and leasing existing infrastructure when necessary. We intend to deliver a middle mile network that maximizes high-speed broadband to every corner of our great state because we know there is no equity without digital equity. We are committed to ensuring underserved and unserved Californians, tribal nations, historically disadvantaged communities and those in remote areas have the infrastructure needed for a fast connection. At today's meeting, you'll hear from our team members on how we're optimizing the system to make Internet access available to all. With that I would like to see if there's any members that would like to have a brief comment before we do roll call. I see none. So, Miss Alvarado, would you please call the role.

Alicia Alvarado: Yes, good morning. First I will begin with the housekeeping rules statement. Attendees, please note there is time allocated at the end of the meeting for public comments. Presenters, please queue Sam to advance your slides. And committee members, please use the raise your hand feature to zoom on zoom to queue Director Bailey-Crimmins to call you to speak. Now committee member roll call. State CIO and Director Bailey-Crimmins.

Liana Bailey-Crimmins: Here.

Alicia Alvarado: President Reynolds.

Alice Reynolds: Here.

Alicia Alvarado: Chief Deputy director Miller.

Alicia Alvarado: Director Tavares.

Mike Keever: Mike Keever for Director Tavares.

Alicia Alvarado: Secretary Tong.

Amy Tong: Here.

Alicia Alvarado: Senator Gonzalez.

Senator McGuire.

Alicia Alvarado: Assembly Member Boerner.

Tasha Boerner: Here.

Alicia Alvarado: Assembly member Wood.

Alicia Alvarado: Supervisor Alejo.

Supervisor Luis Alejo: Present.

Alicia Alvarado: Supervisor Starkey.

Valerie Starkey: Here.

Alicia Alvarado: Director Bailey-Crimmins, we have a quorum.

Liana Bailey-Crimmins: Thank you very much, and I did hear Assembly member Boerner, so I would like since you are the newest member of the advisory committee, I'd like to give you an opportunity if you have anything you'd like to say to the committee before we get started.

Tasha Boerner: Thank you. Well, I hopefully, I'll have cell service. I'm coming back from Northern California, and so you'll see the background changing. But thank you so much for including me, and give me an opportunity to speak. My name is Tasha Boerner, and I am also the new chair of communication conveyance this year and the Assembly. And I've been on this committee for several years, and so really appreciate all the work the committee is doing. I'm very concerned about that you know how we are connecting our middle mile infrastructure to our last mile infrastructure, and ensuring that we are really helping both that digital divide in California not only through our last mile, but through the middle mile, so I appreciate the opportunity to be here, and I think there's a I haven't been on this committee before, so I have probably a lot to learn so. But if I could be helpful in way. Thank you.

Liana Bailey-Crimmins: Thank you, Assembly Member Boerner. All right. With that we'll go ahead and get started with our first agenda item. It is our executive report out from Mark Monroe.

Mark Monroe: Yes, good morning. Committee Members Mark Monroe, Deputy director for the Middle Mile broadband initiative program here at California Department of Technology. As we proceed with the execution phase of this project, the MMBI team has continued to make progress on that project for this, for this morning's executive report, I want to highlight a few key steps we've taken since the last quarterly MMBI meeting. Our MMAC meeting was held in January. Last time we met, Caltrans had gone out to bid for 5 large regional job order contracting and the construction contracts that they will provide for construction of up to 5,150 miles of the network. After receiving bids, Caltrans reviewed and awarded the associated master agreements last month. We are also happy to report that all of the bidder selected have committed to meeting the state's small business, and DVBE reference requirements. In addition to these large master agreements, Caltrans has also signed 12 smaller CMGC or Construction Manager General Contractor contracts for more than 2,000 miles, which allow for the contractors to begin working with Caltrans to design the more complicated segments of the project so that it can be constructed as quickly and in the most cost-effective ways as possible. Caltrans will be providing an update on these and other efforts around permitting, contracting and construction a bit later, and we can move to the next slide. CDT will be providing an update on the status and fundings to date regarding its optimization process. CDT has employed an innovative contracting approach, request for innovative ideas, or RFI2 for short, to provide risk mitigation, reduce the cost of implementation and increase the speed to development by considering the widest range of equitable solutions. Consistent with this in March, CDT signed the first joint build agreement with the company called Arcadian for construction of 306 miles of the 306 mile segment of the MMBI network, running from Los Angeles through Barstow out to Needles, and then south to Vidal Junction. This morning, we will all...we'll also hear an important update from Golden State Net or GSN, our third party administrator regarding the potential use of indefeasible rights of use or IRUs, which are long term capitalized leases that can be done in a way to yield equitable solutions quicker and more cost effectively. We'll also hear updates from the State's last mile coordination efforts from the CPUC and Scott Adams, the deputy Director for CDT's office of broadband and digital literacy will provide an update on the stakeholder engagement surrounding all of these efforts. And that ends my executive report out. Thank you.

Liana Bailey-Crimmins: Thank you, Mr. Monroe. Before we go to the California Department of Technology's project update, I like to give all members an opportunity to see if you have comments or questions for Mark. All right, I see none. All right. Take us away, Mr. Monroe on what's going on with Department of Technology and the updates for the overall initiative.

Mark Monroe: Great. Thank you. all right. So, as many of you may remember, there was always a concern about how best to use the 3.8 billion dollars that has been allocated for the MMBI project by the Legislature to reach the State's unserved communities. We can see here the way the State initially envisioned potentially reaching these communities with the need to have Caltrans construct up to 75 percent of the network along the State highways with the hope that the State could identify as much as 25 of the network from existing infrastructure. It could be least from other providers so using the IRUs which GSN will be talking about shortly. As we all know, in the case of any large multi-year, public works project of this magnitude, construction comp components carry significant risk due to the risk of inflation and the geographic challenges driving up costs are making even making some construction impossible in some areas. Can we go to the next slide here. To mitigate against these risks and unknowns, the State took several approaches simultaneously. CDT worked with Caltrans and the

relevant State and Federal permitting agencies to improve permitting processes and accelerate the time to construction and Caltrans will be providing an update on these efforts a little later. We also work with Caltrans to go out for the larger construction contracts to get a better idea of actual. However, at the same time Cdt went out to bid through this RFI2 process that I referenced to identify the universe of alternative tools available to the State in developing an MMBI network that reaches the unserved and underserved communities identified by the CPUC. What this chart here reflects is that the State may be able to meet up to half of the State's network using IRUs that GSN will be talking about later. However, I want to make sure that the committee members and the public understand that we heard the concerns expressed early on regarding digital equity as it relates to standalone Caltrans construction as opposed to IRU leases of existing infrastructure. To that end it was high priority that we approach all of the communities that we'll be serving, that the network will be serving equitably. As you can see here, significant more IRU and joint build or purchase opportunities may be available than originally anticipated. We want to ensure that committee and the public that regardless of the means CDT uses in developing the MMBI network, it is CDT's intent that all 7 of communities get the same quantity and the same high quality infrastructure. So, for example in pursuing IRUs, we are looking for opportunities for new fiber with the same frequency of access and fiber counts as is being designed for the constructed segments. A combination of approaches such as this may be helpful in avoiding high-cost construction areas in certain terrains. And the availability of this mix of approaches will be helpful in the State meeting the Federal ARPA deadlines. And in any cases where existing infrastructure can be used, faster broadband access will be available to the surrounding communities, which is another big benefit. We want committee members and the public to be aware of the network alternative. CDT is considering just kind of what we're trying to show here. It's also important that the committee and the public understand that the negotiations that might yield the alternatives reflected here are still ongoing. To that, CDT has asked that Caltrans continue its pre-construction work on the entire network. This is, it's a permitting and design work with the exception of the segment that we now know Arcadian will be building until Cdt knows that it has an alternative solution and secured it in in terms of alternative solutions to Caltrans' construction for a given segment. It is, it's vital that CalTrans continue to do it's meeting and design work, so that it is ready for any necessary construction. And so, to that end Caltrans will be providing an update shortly on its pre-construction and construction efforts, and I just want everybody to understand in terms of the contacts that these are intended to reflect its work on the entire network at this point. Can you go to the next slide. So, here you will see the timeline we show at each MMAC and how we are progressing towards our 2026 deadline for completion of the network. We think that as some of the information that will be provided by CalTrans as we're moving forward here, we're making good progress towards starting a construction later this year, and meeting the Federal deadlines of 2026. Can we go to the next slide. Here you'll see some more details regarding the types of alternatives that were generated by initially by CDT's RFI2 and bid solicitation. Again, CDT is currently working with a number of these partners to find the best, most equitable solutions for meeting the needs of the State's unserved and underserved communities, and that concludes my presentation. Thank you.

Liana Bailey-Crimmins: Thank you, Mr. Monroe. I see Secretary Tong has a few questions for you.

Amy Tong: Yes, thank you. And good morning. I just wanted to ask Mr. Monroe on one of the slides, I don't think we need to bring it up. It's fine. The comparison between what initially thinking about a 75/25 split of build versus lease back in, you know, when this whole initiative started to now based on your market research and talking to you know, the various bidders who responded to your innovative idea of open procurement. Looks like it gave the State or this collective effort more options in term of build versus lease. But the division between lease went to 50 percent Caltrans 30 percent, but the joint

build is still at 15 percent, you know, and then 5% left for buy. Would it be fair to say that even in the construction where it says joint build, Caltrans still plays a role in that joint build. So, if you wrote it up the built, you know, actually, you know, constructing part of it, we're still talking about Caltrans plus the joint build which is about 45 percent if I remember my numbers correctly.

Mark Monroe: Yes, so that's correct to the extent that any work that is done along the State highway system, CalTrans has an oversight role. And so, you know, I think Caltrans generally estimates, and I know they can get a little more detail on this, but they generally estimate that about half of their work is that pre-construction work, but that yes, you're correct that if anywhere where a joint build is happening along the State highway, Caltrans has to inspect it to make sure that it meets state standards in savings.

Amy Tong: Okay, yeah, I just wanted to make...emphasize that not only the oversight but that if folks are worried about lease versus the build, the build is really not 30% of the build, it's really still 45 percent.

Mark Monroe: Yes. Yes, and I want to be clear these percentages are, you know they're specifically rounded right, you know they're not...everybody understands they're not conceptually...

Amy Tong: Yes, understand. Great. Thank you.

Liana Bailey-Crimmins: Thank you, Secretary. Assembly member Boerner.

Tasha Boerner: There we go. So, you know, I understand, and I am new to this, so if you've covered this in previous meetings, my apologies. I think it would be good to know which side of the segments of the proposed network would be leased built, joint builder bought. But you know, I don't know if you have a map of all the segments, and we understand whether you know how they're going to be done by segment so we see how that's being distributed across the State.

Mark Monroe: Yes, so that's I mean, that's I think it's a question everybody wants. Everybody has and everybody wants to see that. One of the challenges is that because we're in negotiations on them, we can't really provide the information yet about kind of what those are. It would be my intent by the next one to have a map that really articulates all of the...exactly how each segment is being delivered, but because we're still in negotiations, we're not certain where we're going to land on a number of them. And so that that's why we don't have that map yet ready.

Liana Bailey-Crimmins: So, Mr. Monroe is there a way as those leases are negotiated, can we start seeing a reflection instead of it just being all orange, can we start at least showing progress so people are aware of where the lease versus build versus joint build, understanding that you can only turn something from orange to another color as you get those agreements negotiated. Is that something that you could make sure that we are kept in a loop on.

Mark Monroe: Yes, absolutely. And my assumption is we're talking about the public map that we have on our MMBI website. And so, yes, it is our intent that as we finalize the development alternative, that we would be reflecting that information there, so that the public and members could all understand how each segment is being developed and they will be provided with increasing levels of detail there.

Tasha Boerner: Thank you. And I have another question if it's okay to ask.

Liana Bailey-Crimmins: Yes, Assembly member.

Tasha Boerner: Yeah. So, the other question is, is there any difference in the capacity or distance between access points and the different types of joint build, build leased, all the different options or are the specs going to always be the same.

Mark Monroe: The intent is that they all be the same. This really speaks to the equity issue. There are certainly going to be parts of the network that have to be built. There's nothing else there that could be...there's no other alternative to providing service, so we're going to have to build there. And so, when we build, we...um, for those who and I understand Assembly member you have more probably more knowledge of some of the techy pieces of this, but we're...our standard design is 288 count fiber. And we want to be able to provide access, I want to say it's a roughly twice per mile. I think it's every twenty-four...twenty-five hundred feet that we have the vaults, and so those are all the, you know, access points, and so that kind of speaks to our approach towards any of the other IRUs or joint build alternatives is that we have that same...as an equity issue, we have that same level...of same quality, and same frequency of access.

Tasha Boerner: So, the only thing is, I heard a lot of is we want to, we try to. I think it's important that we do it and that we get the same twenty--, you know, two eighty-eight, that we get the same access point. So, you don't want to have one segment because we're releasing it at a different standard than those that are being built, that would be my position.

Mark Monroe: Absolutely.

Liana Bailey-Crimmins: Thank you. I also see Supervisor Alejo.

Supervisor Luis Alejo: Yeah, thank you much, Mr. Monroe. Just to follow up on this new formula or configuration of the 50, 30, 15, and 5 percent. And I know, I know where we we've...we configured to try to make sure that we're achieving the work by the ARPA deadline. Could you just elaborate? When is that deadline? And by that deadline, what is how many miles out of the 10,000 miles goal will we achieve by that date under this new configuration?

Mark Monroe: Well, so in terms of the ARPA deadlines, it's our broad understanding we need to have all of the funding under contract in budgetary terms they usually refer to that as encumbered by December of 2024, so that would be next December. The progress we're making that should all be very...we're, we're trying to move that forward quite a bit. And so, as Caltrans starts talking about moving forward with construction and with some of these other alternatives, I think we're we shouldn't have a problem getting that encumbered by the end of December 2024 and then the funds needs to be liquidated and the project done by the end of the December 2026 is what we're targeting.

Supervisor Luis Alejo: And so, by December 2024, how many miles of work will be encumbered by then? Is that the 5,200 plus the 2,000 that you explained right now in the more difficult areas, or will it be more than that?

Mark Monroe: All of this...so, in terms of what we have from Federal funds. Originally it was 3.2 5 billion. There's been some fun spots in there, but that's generally still kind of our rule is that we would have to have all of that encumbered for either construction or for leases by December of 2024. So,

whatever we're going to whatever Federal funds we're going to spend on the network all of it has to be encumbered by December 2024, and therefore completed by December of 2026.

Supervisor Luis Alejo: Right, but by December 2024, how much of the network, how many miles of the network will we have achieved by that date?

Mark Monroe: Well, I'll have to kind of defer to Caltrans on that. What I'm gonna say is this is that when we talk about having achieved the miles, certainly if we're looking at IRUs and leases, generally speaking, the IRUs involve leasing part or all of the infrastructure that already exists right? And so, we are hoping that some of that will come online sooner perhaps in the 2024 timeframe. Again, still up to negotiations on that, but when we talk about completing the network, that's really that 2026 deadline and when Caltrans rolls out construction their construction efforts, then it will kind of depend how long those efforts take to complete given segments, and then connect up to any other segments to be able to provide service.

Supervisor Luis Alejo: So, Mr. Monroe on the 50 percent, the IRU and the lease aspect of this, is there a certain amount of years the lease would be for...can you elaborate on the lease agreements? Would they be for 10, 20, 30 years, or because that seems to be the bulk of 50 percent of the money is now going towards that. And so, how far will that get us in terms of writing access through these leased existing infrastructure networks?

Mark Monroe: Sure, sure so well those, the term I'll say the standard term, and Mr. Naughtin will be talking about this a little more later, but the standard term for an IRU is 20 years. So, we're not necessarily held to that right and so I think as we negotiate, we want longer terms and so I will say, 20 years is the is kind of an industry baseline, if you will, it can be shorter. It can be more and so we're trying to push for you know, as we have discussions, we're looking for the alternatives that are going to serve the State the best and most equitably for the longest period of time.

Supervisor Luis Alejo: Thank you very much.

Liana Bailey-Crimmins: Thank you, Supervisor. Assembly Member Boerner?

Tasha Boerner: Yes, you know one of the things going back I think we had a middle mile oversight hearing last year under the previous chair Quirk-Silva and one of the concerns we you know, I think I expressed in that meeting was about having middle mile networks to nowhere. Can you tell me, have there been last mile providers that are absolutely going to be using the network that have been identified?

Mark Monroe: So, we are continuing to work with the Public Utilities Commission, as you might be aware of the budget package that provided the funding for this also provided a \$2 billion dollars for last mile funding, and there's more last mile funding that we're expecting to come to the state from the NTIA and so...and that's, you know, Scott Adams and I think Rob Osborn from the Public Utilities Commission will be talking a bit more about that so really the way I would describe that is that we're, we're not gonna have the middle mile going to nowhere because it's based on a needs map and needs assessment that was done by the Public Utilities Commission. So, the Middle Mile is always going to go to communities that can't function without middle mile. They, you know...they can have last mile service. And so, what I was saying is for a while we are working with industry, we are exploring alternatives, some of the stakeholder or the stakeholder working groups that Mr. Adams will be talking

about. We're actually reaching out to industry to get more information about where different communities want to connect, and which providers would potentially want to partner with us. We do know that that at the end of every segment of our network is a community that can't get broadband. Even if they were to, they can't get broadband without our middle mile. And so, I think one of the things we've heard in the past from the Public Utilities Commission is the idea that if one of those communities are to apply for, you know, funding for a last mile grant unless they were able to actually, you know, that the funding were to provide for the middle mile as well, it wouldn't...uh, there wouldn't necessarily be merit in funding that last mile project because they need them, the...the middle mile. So, in answering that question, I mean certainly all of our routes go to unserved communities, and then we're working with the Public Utilities Commission to make sure that between industry and the other programs that are going on, that we're going to be able to connect those last mile communities.

Tasha Boerner: Understood. What is the process through which the two funding mechanisms are being dovetailed to ensure...as you wouldn't want a last mile project to get rejected because the middle mile wasn't considered...uh, given the timelines that are on the funding, right? So, I think it's a...yeah so, you talk about a little bit more specifically, or maybe there's work we need to do if we're not doing that yet, dovetail both the middle mile and the last mile applications. So, we are getting the most bang for our buck in the State of California.

Mark Monroe: Certainly, and so...um, I mean we meet with Public Utilities Commission at least on a weekly basis, but usually more. And it's a very important partnership. The Public Utilities Commission is the...was a key partner in developing our map. So, they're intimately aware of exactly where it goes in the communities we're targeting and I think the CPUC could talk more about in terms of how they allocate funding. But I think a key component that they've mentioned is that if for last mile applicants they actually get points for connecting to the State's middle mile.

Liana Bailey-Crimmins: Yeah, Mark what we probably want to do... Is it okay Assembly member Boerner that um...we do have CPUC doing a presentation. Can we make sure that that question gets answered when they're up and give more information on how that last mile is going to connect.

Tasha Boerner: If that's okay with you? Oh, that's perfectly fine. I'm just...I've, I've been...and if I need to do this offline, I can also do that. It's just I think...as I've said, I'm still learning and so I want to make sure I understand the process to which the two parallel tracks are being adopted, and that can be conveniently handled however we need to.

Liana Bailey-Crimmins: Excellent question. And I know President Reynolds and her team are here to answer all of last mile questions and so did I see any other hands at least for the CDT project update before we go to Caltrans? Okay, I see none so we're going to go ahead and shift to the Caltrans update from Janice Benton, the assistant deputy director. Ms. Benton if you would like to go ahead and take it away.

Janice Benton: All right, thank you. And good morning, Chair Bailey-Crimmins, committee members, and others from the public. My name is Janice Benton. I am the assistant deputy director over the Middle Mile broadband initiative for Caltrans and we'll be providing the update on progress being made to build the middle mile broadband network. So next slide. So, since we last met in January there has been a lot of movement as Caltrans meet key milestones critical to constructing the middle mile broadband network most notably as Mark Monroe mentioned is the execution of contracts. So, in March Caltrans executed the five master agreements for the regional job order contracts or JOCs

covering more than 5,000 miles. And since January pre-construction service contracts have been executed for eleven Construction Manager General Contractor or CMGC contracts totaling more than 2,000 miles. With the remainder of the miles under evaluation for the most effective, I'm sorry the most cost effective and efficient contracting method for each of those locations. These executed contracts are critical, as Caltrans move from the pre-construction work to handing over projects to the contractors and getting shovels in the ground. With that in mind, we would like to focus today on Caltrans construction readiness from the coordination with CDT and securing permits and approvals to the partnership with the construction contractors and implementing a delivery plan to meet the Federal deadlines. So next slide. While we know Cdt is working on lease, purchase and joint build opportunities as Mr. Monroe mentioned pre-construction work continues on all 10,000 miles. These charts reflect the progress made on the pre-construction activities. The chart shows the percentage of completed tasks in green and the percentage of in progress tasks in blue. We would like to highlight the difference since January and that the remaining miles have been assigned to projects. This means all 12 districts, including District 1 that we discussed in January have projects covering all of the assigned miles. Next slide. Another component needed to get construction underway is obtaining any necessary environmental permits and approvals, and we would like to share the environmental progress since January's MMAC meeting. Caltrans is leveraging the strategy of programmatic approaches. Importantly, our coordination with the resource agencies has resulted in agreements on the necessary programmatic approaches we need to meet the Federal timelines. By using these programmatic agreements either existing or new ones, Caltrans districts benefit from the shorter timeline and the predictability of the negotiated permit requirements. In some cases, using the programmatic approach will require a project submission, such as checklist or application. We also successfully secured a letter of intent with our Federal partners with the support of the Federal Highway Administration and the Federal Permitting Improvement Steering Committee, Caltrans and CDT signed a letter of intent with the 11 Federal land management agencies. An unprecedented approach, the letter of intent is unique to the middle mile broadband initiative. It aims to strengthen coordination, cooperation and partnership around securing the needed land use agreements for the network. Approximately 1,600 miles of the middle mile broadband network traverse the property of these Federal land agencies, and we need their approval to use the land. Through this process we have confirmed NEPA lead designation and agree to a streamline approach to meet the Federal application requirements rather than a process unique not only to each Federal agency or bureau, but also unique to each of their regional and field offices. We worked with each Federal partner to use the same document. This effort underscores the valuable partnership with the Federal agencies. I would like to specifically highlight the Bureau of Land management for the extensive time and effort they have put towards this process, which has resulted in a streamline approach with all of the Federal partners. The middle mile broadband network projects benefit from the time savings and uniformity of the application process. So, both the broke programmatic approach and the letter of intent are aimed at facilitating the project specific effort. While there will be significant benefits in time savings from the programmatic efforts and the letter of intent, I would like to highlight that the districts are not waiting for these to be in place to move forward with securing the appropriate approvals and permits. For every project, the district teams are applying a strategy of avoidance. As they conduct studies and perform field reviews, they can adjust the project to avoid the need for certain permits. So far the result has been approximately 90 projects that have completed the studies and can proceed without needing permits. Next slide. Caltrans is focused on getting the work underway and shovels in the ground. This includes working closely with Cdt to ensure alignment and concurrence on critical decisions as we release work to contractors ensuring the necessary environmental and right away of clearances are in place having a delivery plan in place for the entire network and having contractors on board. Already the Caltrans teams are working with the CMGC contractors on the pre-construction

activities for these projects and in each region the teams have also met with and begun coordinating with their regional JOC contractors to lay the groundwork for issuing work orders. We are setting the expectations and strategizing with them on the delivery to ensure we're efficient and using the most effective means to construct the network. Looking ahead to construction, we recognize the importance of a strong partnership and robust communication with the contractor throughout the project life. This is a unique and new delivery method for Caltrans, Cdt, and our contractors with the Federal timelines for the project to be done by the end of 2026, and the added complexity of coordinating with many parties, including materials, distributors and manufacturers. We will leverage formal partnering to ensure common goals and open communication across all team members during construction. Next slide. All of these efforts I spoke of the construction contractors and environmental clearance, right of away approvals, design, material logistics have been with the objective to begin implementing Caltrans' delivery plan for the build. Factoring in the complexity of the projects, such as the environmental and right of away approvals, our districts evaluated the miles assigned and developed work plans aimed at getting work orders to contractors starting this fiscal year. In fact, our plan to implement has a very aggressive schedule of 23% of the total miles to contractors by the end of June, 50% of the total miles to contractors by the end of this year, 73% of the total miles to contractors by June 2024, and the remaining miles to contractors by the end of September 2024. An example of early work is in Sacramento and yellow counties, where kickoff meetings with the regional JOC contractor were held to discuss scope and begin setting the schedule for two work orders. Next slide. And as we've shared in the previous MMAC meetings, there are projects underway. We'd like to provide you an update on the 3 dig smart projects. These are projects where we are adding broadband elements to existing transportation projects. The first one, a picture on the left shows Gleason Beach project or state Route 1 in Sonoma County. The broadband elements are approximately 80% completed, and we expect to be finished in June. There is still some trench work to be done, and the contractor also needs to install two vaults. Once these are complete, the fiber then can be pulled. The picture in the middle shows state Route 67 in San Diego County. This project is on track to be completed later this year. The conduit is expected to be complete in May. The vaults are expected to be complete in June, and the fiber installation is expected to be complete in November. And lastly, the third one on the right is the Yreka project. It's state Route 3 in Siskiyou County. As of last week, the project to install conduit and vaults is nearly complete with the remaining items to add the above ground markers once the new pavement has been poured. Another dig smart project is in the works, we will be adding approximately 30 miles of broadband to a payment rehabilitation project on interstate 10 in Riverside County. This project is expected to be in construction later this year. So, in closing, we continue to take the necessary steps to move the project forward. As this year has progressed, we've leveraged the significant work that took place last year, so that in the coming weeks and months we can begin issuing the work orders and work packages that will translate into construction underway, and further progress we can share with the committee. This concludes the Caltrans update. Thank you.

Liana Bailey-Crimmins: Ms. Benton, thank you so much, and I always say a picture speaks a 1,000 words. It really does show the magnitude of the work and the village it takes to put all this together. So, my hats off to you and the Caltrans team, and of course, Secretary Tong is always first to raise her hand, and I'm assuming she's going to give you quite a few kudos yourself.So, Secretary Tong.

Amy Tong: Yes, I guess next time I'll wait, I won't be the first one. Supervisor, you gotta be faster than me next time. I'm just kidding. Yes, Director Bailey-Crimmins you're right. I just want to add on to the kudos. The letter of intent signed by both the Caltrans and Department of Technology with the Federal, that is just you know, a very, very innovative approach and it is, you know, first that I have heard have

something like this, and I hope to further streamline the coordination that is needed. So, I just want to give a show out to both of Caltrans and Cdt for making that happen.

Liana Bailey-Crimmins: Thank you, Secretary. All right, Supervisor Alejo, you are right behind Secretary. Right.

Supervisor Luis Alejo: Definitely. I don't want to lose her tradition of being first always. But I did want to commend the work because it's easier said than done trying to expedite you know the permitting and the process with our Federal agencies, and it's really good here that, that is happening. One of the I think the rare examples where it's being done very quickly and helping the work progress on hopefully on schedule, but just on...on the what's just described towards the end of the Caltrans presentation on the miles under construction, and the other part of that was just under on specific routes or work that is, has been awarded or approved. Will we get a map soon to be able to visualize those areas where it's miles under construction and then those areas where we...Caltrans has made awards or approvals of work just so we can know and visualize where those areas will be or is that being negotiated, or we will get that in a future meeting shortly?

Mark Monroe: Yeah, Supervisor, I'll be happy to jump in on that one. Yeah. So, this this goes back to, I think, another question we've received. We have a public map. And so, as we as we begin these projects, as we kind of move to, we move to on any of the solutions, land them and move forward, we'll be updating our map for that purpose, and then that will be...we want to make sure everybody knows you know to your point exactly what we're doing, how we're doing it, and where we're doing it.

Supervisor Luis Alejo: Great. And how soon will that happen, Mark?

Mark Monroe: Well, so you saw the...you saw the construction roll out plan that Ms. Benton noted, and I think they're looking at June or July to roll out the first 23% I think so a lot of decisions have to be made between now and then. But so, I will say, as soon as we have decisions to reflect, we will include them there. And then, as we, you know, Caltrans is gonna as they, they work on their work authorizations, we need to translate that information obviously to maps. And so, my answer is as soon as we, as soon as we have the information, and technically are capable of doing it, b I expect a lot of that between now and July to be to start being reflected there.

Supervisor Luis Alejo: Perfect. Just wanted a timeframe. I appreciate it.

Liana Bailey-Crimmins: Thank you, Supervisor. Are there any other questions from the members before we go to the next agenda item? Okay, I see none. The next update is from our third party administrator Golden State Net, and specifically their President and Chief Operating Officer, Tony Naughtin. Tony.

Tony Naughtin: Thank you very much, Director and good morning, everyone. I'm Tony Naughton, Chief Operating Officer of Golden State Net. I'm accompanied today by Erik Hunsinger, who is Golden State Nets' head of network development. As you know, we typically talk about the activities we've been engaged in since the time of the last meetings, such as network engineering or advancement of key partnerships, community and tribal outreach, and those sorts of things. We thought, however, that for today's meeting it would be useful to talk about dark fiber and indefeasible rights of use (IRUs) in more detail. So, if we could go to the next slide, please. What is an in feasible rights of use? An IRU, it's a contractual purchase of a long-term right to use a telecom provider's existing facilities as well as

oftentimes related network components that support those facilities such as retransmission huts or sometimes it also applies to just purchasing the right to use conduit as opposed to fiber pair or fiber cable. Or it can also include both actually. We had a little discussion earlier in this meeting about the length of the term of an indefeasible right of use. They are by industry standards typically 20 years in length, and they are well extendable beyond 20 years if the contract allows for that. They provide equitable ownership with very few limitations on how they can be used. Typically, you can't use a dark fiber IRU for example for illegal purposes, which obviously wouldn't pertain to this program and as Mark mentioned a moment ago, dark fiber leasing and purchasing rights for IRU dark fiber is for accounting purposes considered to be capital expenditure, which is a requirement under the American Rescue Plan Act of funding that was also referred to a moment ago. If we can please go to the next slide. You know, you know with the basics here, IRUs are typically for dark fiber, meaning the purchaser is purchasing an asset that is not used up to that point and that means, of course, the dark fiber user has to light up its own network and operate its own network within the broader facility of the carrier that's providing the IRU. In this context, that will mean that the State will purchase and operate and maintain its own electronics on dark fiber IRU routes of this network, and given the capacity requirements of the network as Mark mentioned, dark fiber IRUs in this context in almost every instance, and in any case as much as possible, we'll meet the standard specifications for the middle mile network, which at the core of which are 288 fiber cable, which is very high capacity, but that capacity requires that dark fiber IRUs in this program will need their own dedicated retransmission huts which will be included in any IRUs that are negotiated. As far as access is concerned, once again, any dark fiber capacity that's purchased under an IRU will conform to the plentiful access requirements of this network which means access vaults in the ground will be spaced at least roughly a half mile apart if not less than that and in addition to that network, access is provided through what are called shadow vaults, which are vaults in the ground that are immediately adjacent to access...excuse me...to a dark, excuse me, and the shadow vaults are immediately adjacent to the retransmission huts of the dark fiber cable route, so access is generously facilitated just as much so with dark fiber as it is with newly constructed fiber network. If we can go to the next slide. The benefits of an IRU are significant in the context of this program. Dark fiber IRUs will serve to convert existing unused network capacity to the State's middle mile network which from a policy standpoint, needs to be open access. It needs to be highly distributed in order to service. Last mile locations, especially those that have been unserved or underserved up until now, as well as the other policy objectives of SB 156. In every respect, dark fiber service and quality and capacity will equal that of any newly constructed fiber routes. Another important aspect of this is time to service, as we call it, in the telecommunications industry. It takes quite a bit less time to activate existing dark fiber in the ground and turn it into a lit network than it does to construct a new network from scratch. And this, of course, also means there's significantly less disruption in that process since no construction is involved. It's environmentally more friendly and it doesn't disrupt traffic on state highways, and of course this network is primarily being built on Caltrans right of away. Traffic is an important consideration, particularly in urban areas where the network is being developed. And generally speaking, IRU capacity for dark fiber is significantly less expensive than building new network from scratch and that's an important attribute as well. Next slide, please. There is no difference in the quality of service that dark fiber IRU routes provide or the capacity once the specs are equaled as they will be as opposed to newly constructed fiber. The difference doesn't really exist at all. The IRUs will very effectively meet the state's policy goals for an open access, high capacity as Mark mentioned 288-count fiber cable with generous multiple access points for last mile providers, as well as other customers who want to use the Middle Mile network under its open access provisions. It creates more certainty than new construction does because it lessens the unknown scheduling and cost risks that often times accompany newly constructed fiber. These risks are unknown simply because there are so many interdependencies in the process of building new optical plant as opposed

to leveraging and using existing fiber facilities that are in the ground so it lessens the risk and makes the schedule of development more certain. And another key benefit is the ongoing cost of operation and maintenance of dark fiber is typically part of the dark fiber IRU arrangement...contractual arrangement, in the first place which is beneficial as opposed to the State having to carry its own independent operation and maintenance cost burden. This is...this operation and maintenance, cost and expenses rolled into the dark fiber arrangement with the provider of that facility. So, that's very beneficial as well. We can go to the next slide. So, on the basis of what we've talked about here, the third party administrator Golden State, really strongly recommends the use of IRU segments for the Middle Mile network. Where the infrastructure is available, it's aligned with the route, requirements and route determinations and decisions where the network will be located that have been made by CDT based on GSN's advice and recommendations. And all of this will enable the Middle Mile Network to have more overall capacity accessibility at a much more cost effective price point compared to new construction and quite importantly will deliver the services of the Middle Mile Network faster than newly constructed optical fiber would. So, this concludes our presentation. Of course, we're welcoming any questions you may have that Erik Hunsinger and I can answer right here.

Liana Bailey-Crimmins: Thank you, Mr. Naughtin. Great progress, great opportunity to educate us on the benefits of leasing on IRUs and sorry Secretary. Assembly member Boerner got there before you did. Assembly Member.

Tasha Boerner: Yes, sorry. I'm just arriving in Sacramento, one second. Okay, actually Secretary go first, and then I can go when I get up my office.

Supervisor Luis Alejo: Now, now, I feel bad. I purposely waited. Why don't we give the floor to supervisor first, and then I'll come back, how about that? Okay. Supervisor Alejo.

Supervisor Luis Alejo: Thank you very much, Secretary. Just looking at a lot of good reasons why the IRUs are a good thing and help us advance the work statewide, what are the downsides to utilizing this for 50% of the areas of work?

Tony Naughtin: Well, I'll lead off the answer and I'll ask Erik Hunsinger to join me if he has any additional comments. But the downsides are difficult to identify when you look at the real benefits. The reduced cost is substantial, the time to service is always greater as compared to building new construction. Perhaps the only difference really is its beneficial ownership as opposed to true fee simple ownership. But in the case of the IRU agreement beyond the typical 20 year term, these can be extendable for multiple 5 to 10 year terms such that an IRU could be as long as 40 or 50 years even with multiple extensions under...exercised under the contract. So, it's difficult to really identify any disadvantages when you consider the cost effectiveness and much greater time to service by using existing facilities as opposed to newly constructed.

Supervisor Luis Alejo: And the agreements are being written in to allow multiple extensions. Could you elaborate? You know, because it seems like this may be done different ways with different providers or the owners of the fiber. But do we have some standard length of time of how many, how long the renewal period will be and how, up to how many times can the State renew that in the future? And that seems to be an important point to get down now in contractual language, rather than trying to be at a disadvantage in negotiations later without that already being put.

Tony Naughtin: I'll put it to the agreement. And I would ask my colleague Erik Hunsinger to answer that question, please.

Erik Hunsinger: Actually, CDT is working out several contractual arrangements. Some are with renewals where we're requesting 20 years with 10 year renewals afterwards, multiple 10 year renewals. But I want to add that there are some arrangements that CDT has identified and negotiated for the useful life of the cable, meaning that the State will have access on the IRU basis for literally 40 years or longer until the cable becomes useless. Those things have been guided by Mark Monroe's office in the RFI2 process.

Liana Bailey-Crimmins: Yeah, and I know...I apologize. So, Eric and Tony, just if you'd hold on to that we do have because of a digital equity event we're holding, our...one of our speakers reminded us, he has to jump at 11, so can we just go ahead and quickly do the digital equity update? And then Tony and Erik, we can pick back up on what's going on with the IRUs if that's okay with the Supervisor, Secretary, and Assembly Member. Okay, perfect. All right, Thank you. Go ahead, Scott.

Scott Adams: Thank you, Director Bailey-Crimmins and committee members and members of the public. My name is Scott Adams. I'm the deputy director of Broadband and Digital Literacy. I want to thank you for the opportunity to provide a brief update on the coordinated stakeholder engagement efforts that the State partners are conducting on the Middle Mile, on the last mile programs and the other complementary and interdependent digital equity initiatives. They're all working at the State level to achieve broadband for all in communities across the state. Next slide, please. I wanted to first point out that as we've continued to over the last year and a half, we are endeavoring to collectively at CDT, the Public Utilities Commission, Caltrans, Golden State Net, and other State agency partners to engage on as many of the programs as we can at the same time given their interdependent nature and that a lot of the partners and stakeholders we are working with, you know, are also lacking the kind of the bandwidth and capacity to engage with us in different areas. And so I'm really pleased to announce that we've thus far engaged with thousands of California stakeholders and partners on these joint programs over the last several months, and those include a number of different formats to increase the accessibility and equity of folks being able to engage in a way that works for them, so that includes large scale virtual meetings, in-person regional planning workshops, individual meetings and consultations through our monthly email updates and on the Broadband for All portal. Next slide. But we wanted to show here, this is just a small sampling of the engagement that we have done since the last Middle Mile Advisory Committee meeting. And so, in February and March we conducted 2 rounds of 6 digital equity working group sessions. Those were virtual and allowed folks from across the State from a lot of different constituencies, like, you know, local and tribal leaders, schools and libraries, community based organizations, state agencies, nonprofits, philanthropic entities and ISPs to engage on the work and provide input on the digital equity and BEAD planning. I want to also point out that on April 7th, the Department of Technology and PUC held a webinar, specifically for Internet service providers to really continue to issue the call to action and partnership on all broadband for all efforts and enroll their participation in all of the various programs that are leading to broadband for all. The next thing I want to point out is that, as you know, as Assembly Member Boerner pointed out, these are...these are all interconnected. So, we're really proud that we've established Broadband for All, Digital Equity, and BEAD Regional Workshops that will occur in every economic region across the State. Pleased to say that we had our first meeting in Merced last Friday. Another workshop in Fresno last Saturday, and I'm here down in San Diego, we're about to engage with folks in the southern border region from San Diego and Imperial County. The list below is just again we've also tried to be flexible, and meet with communities and coalitions where they are in, attend their convenings, and make sure

that we're communicating out as much as possible the work we're doing, our intention to align with regional and local efforts, and to provide as much up to date information as possible. And if you could go to the next slide. I've mentioned the Broadband for All, Digital Equity and BEAD planning workshops. This is just a sample of you know what is coming ahead, and you can see in the next...I think that's just under 5 weeks. We're going to be conducting a number of these workshops and really eager to extend an invitation to a lot of the folks that are here in this meeting. I know a lot of folks here in this meeting are actually, you know, have attended many of the different events and planning sessions and just continue the need to enroll the California broadband ecosystem. In this effort, we...it's a, it's a unique challenge to implement on the middle mile and the last mile and the promotion of the affordable connectivity program to increase adoption, while we also plan for digital equity and broadband equity, access, and deployment, which are really going to be the next chapters of broadband for all, and allow the State to bring in you know, hundreds of millions, if not a couple of billion extra dollars to support our efforts, so our collective efforts, I should say. I will stop there, and just thank you for the opportunity to present, and I'm happy to take any questions.

Liana Bailey-Crimmins: Well Mr. Adams, thank you very much. I know you are running to another digital equity event. Do you want us to go ahead? And if people have questions. We can have them jot down, and we can have you respond to them. I know that you're in...your time is crunched, so you let us know. Are you available for questions or not at this moment?

Scott Adams: I am available for a couple questions if there are some, and I actually...I understand there are some questions in the queue.

Liana Bailey-Crimmins: Okay. Secretary, do you have a question for Mr. Adams? Okay, anybody have questions for Mr. Adams?

Supervisor Luis Alejo:- Yes, Mr. Adams, I would just ask that if there's a flyer or information, so I could get out to the California State Association of County for all these upcoming meetings, and certainly the one on...in Seaside on June 2nd, I'd look forward to being there and trying to get a lot of our local partners as well. So, I look forward to assisting you and trying to get more of our county governments engaged and our county supervisors. Thank you.

Scott Adams: Well, Supervisor Alejo, thank you so much. And our office will be in contact with you. And really thank you for offering to more widely, promote these efforts. Would ask the same of others if they have the...that capacity to do so. So, thank you. And look forward to seeing you in Monterey and Seaside.

Liana Bailey-Crimmins: Thank you, Supervisor. Are there any other questions for Mr. Adams?

Tasha Boerner: Yes. Assembly member Boerner. Yes, well I want to thank you. I appreciate um...you taking the time today. So, thank you.

Liana Bailey-Crimmins: Thank you, Assembly member. All right, I don't see any other questions, Mr. Adams. Thank you very much. We're going to go ahead and revert back. We did have quite a few questions still for...um, if we can, if we could go back to Tony Naughtin's slide. If that's okay? And or take the slides down, I'd like to make sure we finish that particular agenda item. Secretary Tong, you were up and then we had Assembly member Boerner as well.

Amy Tong: Yeah, I wasn't sure if the question was addressed to Supervisor, I want to make sure it's been you know, we address those question and then I'll defer back to Assembly member. And then, I'll wrap up how that?

Supervisor Luis Alejo: Sounds great. Supervisor Alejo, did you have a question more for the IRU leases? I think the answer to the...for the renewals are 10 years and most of the life of the fiber and I think the cable. Thank you.

Liana Bailey-Crimmins: Thank you, Supervisor. All right. Assembly member Boerner.

Tasha Boerner: [...wrap my head around this [...].

Liana Bailey-Crimmins: Oh, Assembly member Boerner...you're cutting in and out a little bit. Maybe it's your microphone. Oh. All right. Secretary, do you want to just give her a few minutes on the tech side? Is there a question you want to ask? And then we'll get her back in and be able to make sure her questions answered.

Amy Tong: Happy to. Yes, I...I...it's...following in-line, and Mr. Naughtin this probably...question for you or Mr. Hunsinger, did the...is on the quality of these fiber I think, you know, many of the members here, myself included have received a letter, you know, raising question about just the IRU and there's some concerns with listed, I think, in your in your explanation that was very helpful by the way have addressed a lot of it. Just one nuance. There's a reference of the...to the quality of service of IRU fiber versus, you know...build that I saw the bullet is there's no difference there in the quality of service. But what about the quality of the actual fiber, you know. Is there any, you know, aging type of impact for those that are already a dark fiber versus the newly laid fiber from that aspect if you could...you know. Yeah, the State is working through the RFI2 process to develop new infrastructure.

Erik Hunsinger: So, all of the potential contractual relationships would involve brand new IRU cables. So, this would be latest generation. In some cases, the State plans to supply materials out of its stores of fiber that they contracted for late last year through their RFI2 process for materials garnering state discounts because as you well know, the State of California can command certain price points, so much of those relationships will be finished out with materials that the State supplies ensuring consistency through the network.

Tony Naughtin: And if I can add to that Secretary, within the IRU agreement, the provider has to warrant the existing condition of the cable as it's contracted for and in most cases...in every case, it's unused capacity, it's unused fiber. And therefore, is in very acceptable condition. If there, if it's old fiber, it may not conform to the minimum warranty requirement that the contract for the IRU requires. But in every instance, we're aware of any of the fiber being negotiated for on the IRU is well within the useful life of the facility.

Amy Tong: Okay, thank you. Was very helpful and just last question, I...you know, I...in the Golden State Net, obviously have, you know, have a lot of experience working on the you know, via the scenic aspect for the academic network, I think, based on your experience, both of your experience that I know many of that is through the IRU. Have you seen in the service area that you saw the declaration of you know services through IRU versus any...

Erik Hunsinger: You know, maybe a general reference is fine. Yeah, that that's a great question. So, you reference CENIC. CENIC has been running a network on dark fiber for over 20 years on the same fibers. They've actually increased the capabilities of that network via the evolution of the electronics that are used to run the circuit layer of that. Just to give you an example, demand is important, right? So, usable circuits are important. So, as the demand increase, they've gone from 10 gigs in the early days of connectivity. Sorry if this doesn't mean anything to folks, but it's basic communication protocol for a lit service to now they're running 400 gigs on the network in production. Those are bandwidth that most of the carriers that we've spoken to over the last 18 months would be right in their sweet spot. 400 gigs is a little big for most of them. Of course, if last mile carriers needed it, it will be available to them. And so, we want to...we want to make sure that there's a wide offering of services available for any entity that comes to the network. The point of that is because they're able to adjust the electronics, it takes into account this potential degradation of fiber, and it's actually not the fiber itself that's degrading, it's actually cuts into the fiber, incremental splicing that's required because that creates some loss, but it's not significant enough to stop the increased production of bandwidth.

Tony Naughtin: And I would simply add to Erik's answer, Secretary. CENIC has benefited greatly, and its customer member base has benefited greatly through the use of dark fiber IRUs. As the CENIC network is considered to be a carrier class network for all of these purposes, and that has it's a good example from which to make this recommendation we have made to the State for as much dark fiber IRUs as possible where there is no loss in capacity or service capability from that as compared to newly constructed fiber, which of course, as I've said several times, is quite a bit more expensive to develop. If we use CENIC as an example, the savings from the extensive use of IRUs results in of resources that can be applied to other aspects of service or membership in CENIC for example, programmatic activities that add value to the use of fiber and those similar kinds of activities, I think, will come to life in this program as time goes on, and it is really a very practical approach that greatly fulfills the purpose of SB 156, which when the day is done is really mostly about serving people. And that's a really important objective here.

Amy Tong: Thank you, Mr. Naughtin and the Mr. Hunsinger for just sharing that experience.

Tony Naughtin: Thank you.

Liana Bailey-Crimmins: Thank you, Assembly member Boerner. Okay, we're trying this again. Can you hear me? Yes, it's perfect. Ironically, I am in the swing space connected to broadband, so we should be asking different questions, probably.

Tasha Boerner: But I want to get...wrap my head around this, and if I should do it offline, please, please, you know, let me know. Am I to understand you think 50% of the Middle Mile network can be done through leases, so that there is 50% of dark fiber laid throughout California that we can lease? Did I understand all those numbers correctly?

Liana Bailey-Crimmins: I will let Mr. Monroe answer that question for you. Go ahead, Mr. Monroe.

Mark Monroe: Yes, Assembly Member Boerner we, that is what we're finding right. And again, I want to highlight those, we...you know, we're in negotiations with a number of companies right now. So, what we wanted to make sure that the committee understood was that that was the order of magnitude that we're finding might be available at the right price point to, you know, and potentially

meeting our uh...yeah and meeting at the State's policy goals only to the extent they do meet policy goals. It's really more just an order of magnitude. I want to, I wanted to be clear on that.

Tasha Boerner: Yeah. It seems shocking that it would be in the middle mile space so much there. So that would be interesting to understand. And it's good that you're reassuring that we'll meet our policy standards because I think that's what I was hearing. I think Secretary Tong also asked a lot of the questions that I have around the quality of the network and how we got to - I understand the short to midterm economic value of leasing and that avoids the very expensive maintenance cost of networks that us, as a public entity would be bearing. And that does make sense to me. However, you know, I think coming to the conclusion that these are – that when the question I think was asked, I was in the elevator and was cutting in and out, so I'm not sure I got it all. What I heard it was, somebody asked like, what are the negatives of leasing of the IRUs. And the answer that I heard was, the benefits are so great that the negatives are negligible. That doesn't mean they're not negatives. It means you've done a calculation saying the benefits outweighs the negatives. What I would like to understand is what are the negatives around it and let us make some comments on what that calculation is. And then this that was more of a comment for maybe a future time. And then the service thing is, I think we should be careful........ Okay......it's only a....... at all.......Assembly member Boerner, you're cutting in and out again. I'm so sorry. Okay... There you go. I don't know what's going on. Super weird, never happens. Um...guess it's a Friday. I don't know maybe they're doing maintenance, I have no idea, but one of the things that I'm concerned about is the words that we're using. We often will use a lot of words like, we're trying to, or this is our goal; and of course, we can't always provide clarity and commitments in our word choice. But there are people watching this meeting. There are people out there, and they're really worried with all this money coming through that we will repeat the inequities of the past. And so, using words that are more definitive, I think we'll create more trust in the process. So that's just also just a side comment.

Liana Bailey-Crimmins: Thank you, Assembly Member. Very well received. Thank you. All right. Any other questions before we go to Last Mile. I know many of you have some questions about Last Mile, and we are lucky enough to have CPUC. Mr. Robert Osborn to give us a presentation. Robert.

Robert Osborn: Thank you Chair Bailey-Crimmins . Good morning Committee members. My name is Robert Osborn, from the California Public Utilities Commission. I'm going to provide an update on the Federal Funding Account and CASF Last Mile programs, as well as several others. Next slide, please. So, staff have posted on the CPUC website a grantee administrative manual describing how to apply for the Local Agency Technical Assistance program and materials on the grant application and required supporting documentation, how to videos, an FAQ, and then what you see on the right side is the tableau dashboard of the applications that have been submitted. The program has authority for 50 million for local and tribal governments. This is to facilitate Last Mile broadband infrastructure projects that supports local agency and tribal efforts to expand broadband to families in communities that are lacking access. To date, we've had 90 applications, or we've awarded 90 grants for a total of \$40.45 million. And from August through March of this year we've received 120 applications for the requested total of \$54.47 million. To date, I believe we have about we have 48 of the 58 counties who have applied. Eligibility for non-tribal LATA applications, we are no longer accepting requests for the nontribal Local Agency Technical Assistance applications. We're at, hit the \$45 million. So out of that 50 there's \$5 million reserve for tribes. So tribal governments are still encouraged to apply. There is still \$2.4 million available for tribes. Next slide, please. So, on the Federal Funding Account map. So, through the broadband for all preceding the CPUC adopted program rules for the Federal Funding

Account, and we published a first version of the eligibility map which showed location of and data about potential Last Mile broadband infrastructure grant projects. After publishing the first version of the map, the PUC began soliciting feedback and input from stakeholders and in response to this feedback and input, CPUC has updated the map. Specifically, we heard from stakeholders that the unserved locations were not appearing on the map. We heard that equity needed to be more deeply integrated into the process, and the applicants needed to be able to draw their own projects and leverage existing metrics for disadvantage communities. And that the CPUC should provide more data to enable applicants to evaluate areas. So, in response, the CPUC released another version, a version 2 on April 7th, which first removed the predefined priority areas. Second, updated the underlying data set to better reflect the number of unserved locations. And these are specific unserved locations, not census blocks, as we have used in the previous years. We also added more socioeconomic indicators, including Senate Bill 535 Disadvantaged Communities with a separate layer showing tribal lands, Socioeconomic Vulnerability Index or SVI, which describes the relative socioeconomic characteristics of communities in terms of poverty, unemployment, educational attainment, linguistic isolation, and percent of income on housing. "CalEnvironScreen" which tracks community at disproportionately burdened by multiple sources of pollution. And then yesterday we released an update to the map with a low-income areas layer showing areas where aggregated household incomes are less than 80% of an area or of the state median income. We're continuing to conduct a weekly series of ISP and stakeholder meetings about the map and to get feedback. We plan to launch a grant application portal to begin training applicants on how to submit an application for the first round of applications in June. Next slide, please. Last year the CPUC adopted new rules for the Broadband Adoption Account, the Regional Broadband Consortia Account, and revised rules for the Public Housing Account for publicly supported housing developments and farmworker housing. And we updated the CASF infrastructure account to implement legislation regarding project eligibility and performance criteria. Eligibility rules for other low-income housing developments and mobile home parks with low-income residents will continue in the current rule making which is part of the CASF proceeding. On the adoption grants. These are grants to public entities and community-based organizations for digital literacy and broadband access projects. In this fiscal year we awarded 105 projects for \$8.6 million, and have plans to make a decision on 13 applications requesting \$9.46 million in the second quarter. Infrastructure – So we recently released on April 7th, a public map for the CASF broadband eligibility. That's now available, and we've extended the application deadline for CASF, California Advanced Services Fund to June 1st. For public housing and low-income communities, these are grants to build networks offering free service, for low-income residents in communities such as public housing developments and mobile home parks. In this award cycle we've awarded 31 applications for \$1.6 million. Sorry, we've received 31 applications, have not yet awarded all of those. And we continue to meet with stakeholders as I mentioned earlier, not just about the Federal Funding Account map, but also about the CASF map to gather feedback. Next slide, please. So, this really provides an overview of the various broadband programs, technical assistance I've talked about already. Federal Funding Account I've talked about just now, and for the California Advanced Services Fund, the ones that I have not yet addressed is the Loan Loss Reserve Fund, and for that staff are working right now closely with iBank and plans are to create a staff proposal for consideration in July of this year. And that ends my slides, but I would like to address a question that came up from the Assembly Member earlier about Middle Mile and Last Mile coordination. So, there's a number of things to talk about here, but first off, I wanted to say that for the CASF infrastructure grant rule, applicants who are seeking funding for middle mile infrastructure for the purpose of serving the last mile are required to provide a written justification as to why any existing middle mile facilities can't support the locations that are in their CASF project area. And then, secondly, they have to provide a notice confirming that they consulted with the California Department of Technology within 3 months after commission approval for their project. And then for any middle

mile infrastructure that is funded by CASF. It has to be made available at reasonable cost and equal terms to any other provider that wishes to interconnect. And already we have coordinated with Department of Technology as Mr. Monroe stated on several CASF last mile projects to either leverage existing middle mile infrastructure that's in place or for proposed funded infrastructure that's not in place that would be paid for by CASF, so that's on the CASF side, for the Federal Funding Account side, there is a requirement. Well, it's not a requirement. It says that interconnection with statewide open access, middle mile projects have to interconnect with the statewide middle mile. If they don't, then we have to understand how that infrastructure is, why it's required, and I think, as the assembly member was stating earlier, there is an instance, obviously, where the statewide middle mile is not in a local area for a local network to connect, in which case that funding through the FSA program would be made available to fund Middle Mile. So, staff will evaluate and verify that the proposed middle mile infrastructure is needed. Staff will verify the existing middle mile infrastructure in a project area has sufficient capacity and staff will evaluate whether the proposed middle mile infrastructure can be provided by the State middle mile network, or, if it is indeed additive to the statewide middle mile. In cases where there is no existing middle mile to connect the last mile, there are points awarded if you are leveraging the statewide middle mile. But if there is no statewide middle mile that's locally accessible, those 10 points could still be added to the application for scoring. So, I hope, I realize it's a lot of information, but I hope that addresses some of the questions from Assembly Member Boerner.

Liana Bailey-Crimmins: Looks like you got a thumbs up Director Osborn. All right. Is that the end of your presentation?

Robert Osborn: Yes, thank you.

Liana Bailey-Crimmins: Okay. Does anybody have questions for CPUC and the progress that they're making? All right. Assembly Member Boerner.

Tasha Boerner: So, I guess this is what we have to do. We have to turn off the video to talk. But thank you, Director Osborn, for your presentation, and I just wanted to confirm with the dates we are still looking at June first for the FFA funding grants to open. Is that correct? I think that was the date that was listed, and the oversight hearing we conducted in February.

Robert Osborn: So, we're shooting for June. I don't know if we said June 1st, I think we said in June, so it might be the end of June.

Liana Bailey-Crimmins: All right, thank you. Is there any other questions? I think we need a grant for to close the digital divide in the capital building. Oh.

Tasha Boerner: It is a sad statement that I'm in the capital building, the swing space in a newly constructed building and I'm having to do this, and we should be thoughtful as we look at all this to know that even though we're closing the digital divide, there will still be problems that it's not going to be perfect. So.

Supervisor Luis Alejo: Exactly.

Liana Bailey-Crimmins: Well, thank you Assembly, Member Boerner and Supervisor Alejo for recognizing that even with the best internet there are tech difficulties, right? Any other questions,

comments from anybody before we go to public comment? All right, Miss Alvarado, if you please, go ahead and open it up for public comment.

Alicia Alvarado: Yes. In order to ensure everyone who wishes to make public comment, has the opportunity to do so. We respectfully request one person per entity and 2 minutes per person. The order of public comment will be online public comment submissions prior to the meeting. Zoom hands raised. Please use the raise hand feature on the lower toolbar. And phone hands raised via Star 9. We have one public comment in queue. This is from Len De Groot, from Tuolumne County. Greetings. My consortia of 5 counties would like to meet with someone from CDT to discuss Middle Mile construction. Who was the correct contact. Thanks in advance. We will respond to this comment directly to Mr. De Groot. Pardon me.

Liana Bailey-Crimmins: We will have Mr. Monroe respond. And obviously it's always important that all of our contact information is that on the website, but we will make sure that's available to this particular public comment individual. Are there any other public comments?

Alicia Alvarado: I do not see any other hands. And there are none in the mailbox.

Liana Bailey-Crimmins: Okay, I would like to open it up to any more committee members. Secretary, did you want to say anything at the end?

Amy Tong: Oh, yeah, I would just wanted to make sure that since we're in the public comment that I know some of the member here probably gotten a letter from Oakland undivided. I just want to make sure that somebody is responding to the concern that was listed in a letter, since it was a request, you know, response requested.

Liana Bailey-Crimmins: Thank you, Secretary. Not in this forum, like you know, as a follow up. Yes, Secretary, we will obviously get back to Oakland and LA and I think, Mr. Monroe, that assignment is also assigned to you, correct? And we are always available to meet in-person with any interest group that is interested in what we are doing, and want to know the progress that we're making. So, I want to put that out there publicly.

Nick Beard: Thank you. Director Bailey-Crimmins, we have 9 individuals of in the waiting room that have their hands raised that we can process through public comment. Okay, if you would please go ahead and proceed. Sure. And the first person that I noticed that had their hands raised was Mark Dinh, I'm going to allow you to talk.

Mark Dinh: Great. Good morning, committee members. Thank you. Mark Dinh. I work for Metropolitan Transportation Commission in the Bay area, but I'm actually on here as a just as a member of the district for community, specifically along the coast side near Half Moon Bay. So, just two comments. One is in my work on fiber out on the State's right-of-way and IRUs just one comment is that you know the I think the Middle Mile Advisory Committee is acquiring IRUs from ISPs, and then linking to then connecting last mile ISPs to these connections. So, some of the IRUs to some of the...like outsource IRUs may have some restrictions about its use, and specifically it's used for resale, so that may be a sticking point with some of the IRU contracts. And the second comment I had is, you know, yeah, I have an understanding that when you're developing this this network it really is like, you know, an octopus with multiple tentacles, you know, with different segments, with different service levels, you know, managed by different providers. And so just curious a little bit more about the thinking or

strategies behind long term O&M plans for this fiber network, you know, over the course of 10, 20, 30 years. Thank you for the time to make my comments.

Nick Beard: Appreciate that, Mr. Dinh. So once again you did a great job. I just want to make sure that as we go through everybody else for a facilitation perspective. You have about 2 min to present your comments, of which case we'll be able to record those, and then be able to post those up for all individuals on our MMAC website as well. But this is just comment as for this particular section. Going on, we have, Patrick Messac. I apologize once again. My name is, Nick Beard, and I'm sure everybody will mess it up. My job here is to mess your name up. Please fix it when I allow you to talk. Thank you for your time. Patrick.

Patrick Messac: Good morning. My name is Patrick Messac and I'm director of Oakland Undivided. Thank you for your transparency and ongoing engagement with Oakland, and with communities that, like ours, have for decades been bypassed by public infrastructure investment. We recognize that the completion of this middle mile network is a herculean effort with builds occurring simultaneously across the State. While, of course, constantly moving parts requires flexibility. Please recognize that this drastic revision to the composition of the network from majority build to majority lease, has raised questions and concerns from community advocates who are all too accustomed to well-intentioned efforts that ultimately relegate us to inferior assets. Similar to assembly, Member Boerner and Secretary Tong, we have questions regarding the characteristics of IRUs compared to builds. This includes capacity. Will all these segments include 288 count strands with all available for use by last mile providers and municipalities. Access points: Will all these segments have access points at least every half mile. Duration of lease: Will all these segments be fully funded through SB-156 for the entire useful lifespan of 40 plus years. Quality: Are we sure dark fiber strands have not degraded over time in terms of use. Ultimately, we need assurances all IRUs will be equivalent to builds, especially because we anticipate urban areas like ours will have a disproportion allocation of these leases. Regarding these concerns, I sent a letter to the Middle Mile Advisory Committee on Wednesday in partnership with Los Angeles County Economic Development Corporation and Unite LA. Two great partners in this work. We respectfully request the following: One, the State provides a 10,000 mile map that delineates which of the following 3 categories each segment falls into, confirm must build, plan joint build, and proposed IRU. Two, the State shares the map at least 30 days before the map is finalized to a listen ample community input. And three, the State commits publicly and in all contracts that any middle mile lease segment by the State will be equivalent to newly built segments. With regard to capacity, accessibility, duration, and quality of use. We look forward to your response on these 3 requests and thank you for your ongoing engagement and partnership to achieve our shared goals. Thanks so much, y'all.

Nick Beard: Appreciate it. Thank you so much. Going on. I have Jason from the Circle Law Group. I am opening your mic.

Jason, The Circle Law Group: Yes, thank you for taking my comment. My name is Jason Lee, I'm the legal assistant at the Circle Law Group. We represent several tribes, Native American tribes up and down the State, and I've been tasked with following along with the middle mile and last mile initiative. And I just was looking, would like to request a, if it's available, an up-to-date copy of where the middle mile lines will be laid, and where the subsequent evolves will be laid. I just want to ensure that those things are available to see and comment on. If we think there's going to be a problem. I can be reached at jason@thecirclelaw.com. Thank you very much.

Nick Beard: Thank you for that. I'm going over to Shawn Trento from AEC. I am opening your mic.

Shawn Trento- AEC: Thank you very much. I represent Anza Electric Cooperative who we're a CASF funded last mile project, while we have gigabit fiber to our members that includes 3 tribal lands and plenty of low income and rural areas. Our biggest problem is that call now so the middle-mile project is going to be enormous for us. I just want to make sure that we can connect to it, and that we keep talking to the right people, and that we know, you know, when it's going to be available. There's plenty of notice, and so I can plan for our back haul build outs around the middle-mile project. So, I just need to know who to talk to and what contacts we should be in contact with.

Nick Beard: Okay, Appreciate that. I'm going to go over to David Griffiths from Alpine Company, Corporation or Company. I'm opening your Mic.

David Griffith, Alpine Co.: Thank you. It's actually Alpine County. Supervisor.

Nick Beard: No problem at all.

David Griffith, Alpine Co.: Just a question or comment about these letters of intent with the Federal agencies. I'm just wondering the about the one that you may have with the Forest Service. Is it with region 5 of the Forest Service or the entire Forest Service? And the reason, I'm asking the question, is it many of us on the eastern side of the State are actually in region 4 of the Forest Service. And so, any understanding that you have with region 5 of the Forest Service would not automatically apply. So, if you could check on that, that would be great. And again. Thank you for all the work you've been doing. This is really important to all of us, as you know. And thank you very much for everything. That's it.

Nick Beard: I Apologize. I thank you for that. Thank you, Mr. Griffiths. I was on mute. I'm going over to Jason from the Circle Law group. I am opening your mic.

Jason, The Circle Law Group: I apologize if it was never lowered. I didn't re-raise it.

Nick Beard: No worries. I will move on. Thank you so much. Going over to Shawn Trento from AEC, got lowered as well. L..O.... excuse me about this. L. Ozeran. I'm going to open your mic.

L Ozeran: Thank you very much. And good morning everyone. Thank you for making time for public participation. I'm Dr. L. Ozeran and I help technology strategist. I want us to ensure that telehealth is available to all Californians. We need a broadband to be as accessible as roads, and I really appreciate Assembly Member Boerner's questions about ensuring optimal use of funds and ensuring access. I have a question about how we ensure equity as a practical matter. The 1.6 million dollars granted by CPUC thus far to support free services seems far too little for the entire state. So, what I'm wondering is, as we put billions of dollars to work and can leverage public private contracts and leases to benefit the underserved. What process guidelines are in place for the decisions being made now to ensure that when we're done, broadband for all reaches families who can only afford to pay \$10 per month. Thank you very much.

Nick Beard: I appreciated that comment. Thank you. Moving on. I see a hand raised on MCC's zoom. I'm, opening the mic.

MCC Zoom: Thank you. This is Gregg Dieguez. I'm Chair of the Midcoast Community Council on the coast in San Mateo where we have lifeline communication problems punctuated by the last storm. A comment and a question. I think Assembly Member Boerner is right on target with her concerns about IRUs, and I don't think the question is going to be about the physical issues. I think the issue is going to be the quality of the negotiations on cost. It would appear that those assets are stranded assets. Thus, I would assume that the prices that would be negotiated would be quite favorable. But as a former business-person, I can imagine the possibility, for let's call it disproportionate profits to be made in those negotiations, and I don't know, I do not know how to advise the committee on what metrics should apply for what's a good deal or not. It is clear, of course, that they will, use of dark fiber will accelerate the availability of this project. But I think, needs to be watched closely in terms of potential for profiteering. My question is about getting ready to accept Middle Mile and turn it into last mile. Do we have to form some form of legal entity here. And how do we go about doing that to take the middle mile strands and then move them into the locality? It's a question that I think also, Assembly Member Boerner was mentioning. We want the fiber to go somewhere. How do we get it into our neighborhoods? What do we have to do to form an entity to get that going and funded, and I don't expect an answer right now. But I'm requesting that some advice or consultation be given to us so we can form that legal entity and get started. Thank you.

Nick Beard: Appreciate that comment. Going over to Stephanie Ramirez or the Senator Limon's office. I'm opening your mic.

Stephanie Ramirez Zarate- Sen. Limon: Good morning. Thank you. My name is Stephanie Ramirez Zarate, I'm District Director for Senator Monique Limón who represents Santa Barbara and Ventura counties. I am here this morning to express our offices desire to see the California Department of Technology continue with its plans to expand broadband access into the New Cuyama and Maricopa areas as part of the Middle Mile build projects. New Cuyama specifically, is in desperate need of expanded internet access. A Santa Barbara County survey found that 61% of New Cuyama residents reported needing more Internet access with 23% saying they had no Internet at home at all. Through our dealings with New Cuyama officials our office has seen firsthand how the community struggles with Internet reliability. Often times this school in this community being the only place to find a secure connection. This project was listed as a priority in the area, and it is our belief it should remain so. Thank you so much for your time.

Nick Beard: I appreciate that comment. Thank you. I am going to lower the MCC zoom hand as well. I believe that was a legacy, please re-raise it if that was not the case. Appreciate it. Going over to Wally Baker. Wally, I'm opening the mic. Sorry about that.

Wally Baker: Good morning, Wally Baker. Thank you very much for what you guys are doing. Looks like you're doing great work, and looking at the big picture everything looks like it's all going to come together, and that's great. I'm president of Jobs First Alliance, and I wanted to ask whether the application scoring process for grants will include a contract or apprenticeship programs and contracts that require local higher workforce. Thank you very much.

Nick Beard: Appreciate that. Going over to the last and final is going to be Kareem Weaver. Kareem, I'm opening up the mic now.

Kareem Weaver: This is Kareem Weaver, representing the Oakland NAACP. You know I've been following this process for a while, and have consistently raise the flag for equity so then all of our residents have access to what they need. And it is done so in a way that doesn't double down on some

of the unfortunate discriminatory practices of the past that have really set the stage for a bifurcated economic reality in many of our cities, but particularly in Oakland. I've been really grateful for the engagement and optimistic about the possibilities here, and I just want to make sure that we all, as we kind of wrap this thing up, we all follow through on the vision that was not just about laying down this middle mile. Like that's what we're doing, but it's a bigger picture here and we want to do it in a way that provides access. The greatest amount of access to all our residents, especially those in the greatest need in Oakland. That's a specific track on a specific area, and we've gone over it before. But I just want to lift that flag or equity one more time, so that we make sure that when we all look back on this 20 years from now, we know that we were on the right side of social justice on the right side of treating people with the respect they deserve. And that we've kind of learned from some of the mistakes in the past, so I prefer the people I've heard, was it Patrick Messac said something about a little bit earlier. I think he put it best, but I just wanted to make sure that the NAACP weighed on his to know that equity is a serious component here that it should always be taken into account. Thank you very much.

Nick Beard: Greatly Appreciate your comments with that. Chair Bailey-Crimmins, we are, we have no more hands for public comment.

Liana Bailey-Crimmins: Thank you, and I just want to express my appreciation to the public for their comments today, and I'd like to give the members another opportunity to make any statements before we close today and adjourn today's session, so I will open it up to the members. Assembly Member Boerner.

Tasha Boerner: Yes, I want to thank you all for being patient with my questions today, and echo the comments, you know, and summarize them in a way. We cannot redo the inequities of the past, and so the task ahead of us is difficult and hard. I also am concerned generally about 50% leases, and would like in the future hearing, or we could just offline this with me, maybe you guys are all aware of the IRUs, and something only new to me, so I could do this offline if that's the best way to do it, to really dig deep into what it's going to take to get this dark fiber and having public leases. And what does that mean to the market? So, you know what are the concessions we're going to have to make and do any of those inadvertently, or you know, clash with our equity focus that we have with this Middle Mile Advisory Committee and our goals in California. But thank you all for the very informative and it was a very well-run meeting. Thank you so much. I love efficient meetings, and we're pretty much on the time. Oh, I have to go to the airport now, so thank you.

Liana Bailey-Crimmins: Thank you Assembly Member Boerner. Are there any other comments? Okay. Well, I want to thank the committee members, presenters, attendees because of all of you this is what makes the Middle Mile Advisory Committee worthwhile; and obviously public comment is, we are serving the public. You are at the heart of everything we do to address the unserved and underserved communities, and we hear you loud and clear. With that we will continue bringing updates to you and the members. And our next meeting is actually Friday, July 21st 2023. It will be posted, and we will be meeting about 10 a.m. to 11:30 a.m. With that the Middle Mile Advisory Committee is adjourned, and I hope you have a wonderful weekend.