

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

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

Agenda Item 1: Welcome

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

Directorate Bailey-Crimmins welcomed all MMAC members, designees, presenters and attendees.

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 was Teresa Calvert	X	
Government Operations Agency	Secretary Tong		X	
Department of Transportation	Director Tavares	Designee was Chief Deputy Director Keever	X	
State Senate	Senator Gonzalez	(Ex-Officio Member)		X
State Senate	Senator McGuire	(Ex-Officio Member)		X
State Assembly	Assemblymember Tasha Boerner	(Ex-Officio Member)	X	
State Assembly	Assemblymember Wood	(Ex-Officio Member)	X	
County of Monterey, District 1	Supervisor Alejo	Local Government Representatives	X	

County of Del Norte, District 2	Valerie Starkey	Local Government Representatives	X	
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Agenda Item 2: Executive Report Out

Mark Monroe provided the executive report out, focusing on execution phases, the NTIA grant and deliver of fiber and conduit. Also noted that updates would be given regarding contract execution further in the presentation.

Agenda Item 3: Project Updates

- **Mark Monroe** provided the California Department of Technology's (CDT's) update on initial broadband needs (8,100 miles);
 - the budget model with an estimate of \$455k per mile; implementation approach: 75% of the network will be constructed (approx. 6,000 miles) while 25% will be leased (approx. 2,000 miles).
 - This phased approach will maximize coverage of unserved households, linkage to last-mile & middle-mile, meet labor objectives and maximize state & federal funding.
 - An updated phase 1 map was shared showing the 8,300 miles.
 - Update considerations were shared regarding IRU/Lease, Caltrans Build, Joint Build and Buy
 - Phase 2 will include approx. 1,700 miles
 - A planning timeline of the project was shared.
- **Janice Benton** provided a California Department of Transportation update focused on preconstruction progress (environmental, permitting and design), construction readiness, a programmatic approach to environmental progress, and an update on Mendocino County construction on State Route 20.
- **Tony Naughtin** provided the Third-Party Administrator update focusing on network development & engineering; coordinating & planning with Caltrans; business development & product management; community & tribal outreach.
- **Scott Adam** provided the California Department of Technology's (CDT's) update on stakeholder outreach including virtual and in-person workshops, consultations and monthly email updates. Also shared a video of the San Joaquin Valley Broadband for All, Digital Equity, & BEAD Planning Regional Workshop.
- **Maria Ellis** provided a California Public Utilities Commission (CPUC) update focused on the Federal Funding Account (FFA) public map, Local Agency Technical Assistance, California Advanced Services Fund (CASF) grants received, and last mile broadband initiative funds.

Agenda Item 4: Public Comment

Public comments were made by:

- Patrick Messac, Oakland Undivided
- Dr. Larry. Ozeran, Clinical Informatics

- Geoff Belleau, CA Department of Education
- Emily Cohen, United Contractors
- Sarah McCormick, City of Fort Bragg
- Ross Millerick
- Amy Hamblin, NextGen Policy
- Ernie Pacheco, Communications Workers of America

Members Final Comments

Director Bailey-Crimmins: CDT & Caltrans look forward to the labor discussions that we will have in the next few weeks.

Chief Deputy Director Keever: I'd like to express my appreciation for everyone working on this. It's a lot of hard work but will have a lot of benefits. Thank you to everyone.

Closing Remarks

Directorate Bailey-Crimmins thanked Committee members, staff, partners, and attendees and confirmed that the next MMAC meetings is scheduled for October 20, 2023.

The meeting adjourned at 12:13pm PST.

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

Transcript

Chair Bailey-Crimmins: Well, good morning and welcome. Happy Friday, everyone, to the July 21, 2023, Middle-Mile Advisory Committee meeting. The first order is to call roll. So, Miss Alvarado, would you please call roll?

Alicia Alvarado: Yes. First, I will go over housekeeping rules. Attendees, please note there is time allocated at the end of the meeting for public comments, either in person, zoom, phone, or email. Presenters, please queue Sam to advance your slides. Committee members, please raise your hands to speak and ex officio, please use your raise hand feature in zoom to queue Director Bailey-Crimmins to call on you to speak. Now, committee member, roll call. State CIO and Director Bailey-Crimmins?

Chair Bailey-Crimmins: Here.

Alicia Alvarado: President Reynolds.

President Reynolds: Here.

Alicia Alvarado: Chief Deputy Director Miller.

Teresa Calvert: Teresa Calvert for Chief Deputy Director Miller here.

Alicia Alvarado: Director Tavares.

Chief Deputy Director Keever: Chief Deputy Director Keever for Director Tavares here.

Alicia Alvarado: Secretary Tong.

Secretary Tong: Here.

Alicia Alvarado: Senator McGuire. Senator Gonzalez. Assemblymember Boerner. Assemblymember Wood. Supervisor Alejo.

Supervisor Alejo: I'm here zooming in from Austin, Texas. Thank you.

Alicia Alvarado: Supervisor Starkey.

Supervisor Starkey: I am here on Zoom.

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

Chair Bailey-Crimmins: Thank you. I also like to personally thank the California Department of Tax and Fee Administration for allowing us to utilize their boardroom. We have a great team here today to support us, and we can't do it without you. So, thank you very much. Today we're going to hear project updates from CDT, Caltrans, Golden State Net, and CPUC. Are there any committee members that would like to provide any brief comments before we get started? I will first look to my colleagues on the dais, if you have any comments before we get started, and then we'll go to the members that are connecting remotely. So, any questions? All right, I see none on the dais. Do we have any members that want to make any comments remotely? Nick, any? Fantastic.

All right, we'll go ahead and get started with the executive report, which is Mr. Mark Monroe.

Deputy Director Monroe: Good morning chair members. Mark Monroe, the Deputy Director for the Middle-Mile Broadband Initiative, and we're excited to be able to come to our third quarterly meeting of the year, and to be able to provide an update on the project. As I think everybody knows, certainly this project is a priority for the administration, and really an early effort in a broader infrastructure, the efforts to that. We're going to really help a lot of Californians. And so, it's a very high priority and we're glad to be a part of it to be able to provide an update on it. I think we can kind of go to the next slide here. As everybody hopefully is aware, we've moved into the execution phase for this project. You know, we spent a lot of time really trying to go through and do a lot of planning efforts in the first year. And so, we're really moving into the execution phase at this point. Our primary focus has been optimization and trying to take a look at all of the State's needs and weigh them against the funding available. We'll be providing some updates on that this morning. Since we last met, some might be aware that CDT received a 73-million-dollar Federal grant from the NTIA that is included as one of our funding sources now. We received word of that about a month ago, and we're very excited about that. And similarly, we want everybody to know we've actually started to receive the critical materials that we had gone out and ordered, and we'll be talking a little bit about that. But we actually started to receive fiber and conduit in anticipation of moving towards construction. This morning, CDT will be providing an update on our optimization efforts and how we're planning to implement the project going forward. Caltrans will be providing an update on its pre-construction efforts as it moves towards actually being able to start construction of certain segments. And Golden State Net, our Third-Party Administrator, will be reviewing some of the work it's doing regarding engineering, some of the outreach work that it's done as well as business development. And then the Public Utilities Commission will be provided an update on its last mile efforts which are so key to syncing up with the middle mile to make sure that we're able to provide end to end connectivity. With that, that's the end of my executive report out.

Chair Bailey-Crimmins: Thank you, Mr. Monroe. I appreciate you laying out the agenda for today. I'd also like to acknowledge that Assemblymember Wood is in the audience, so, thank you very much. Oh, he's on zoom. Okay. Sorry he's on zoom as well acknowledged that he is on from a roll call perspective. Is there any questions regarding the agenda before we get started? Anybody raising a hand? Virtually? Nick? Okay. The next agenda item is Department of Technology project update. Mr. Monroe?

Deputy Director Monroe: All right, very good. So, you know, certainly the members of the public have been waiting for this for a number of months to kind of see where all of this optimization work has landed. And so, we're going to be talking through that. To start, though, I wanted to just review really quickly where we started. 2 years ago, when SB156 was passed and the initial ARPA funding was provided, preliminary estimates were in the 8,000-8,100-mile range in terms of what that network would need to look like. Some of the estimates that we had worked on with Caltrans at the time, based on past projects it'd had. They were limited in Caltrans' built roads for the most part, but they had actually done some fiber work in the past, and so we had estimates in the range of \$455,000 per mile. And so based on those funding levels, that initial anticipated scope of the project and the funding available, it was initially anticipated that the network would be composed primarily 75% of construction and 25% of these indefeasible rights of use or leases. I'm just going to reference them as leases in the in this presentation. But those broadly how we envision putting together and developing the statewide network. We can go to the next slide. We've done a lot to really explore all the alternatives and the time since, and so we have updated information, updated assumptions that are really feeding our analysis at this point. So, some may remember that we worked with the Public Utilities Commission. They went through a robust public process and analysis and then we worked with the go with Golden State Net, our Third-Party Administrator, to develop what would be the ideal map in terms of a minimal network that reached all of the unserved communities throughout the State. And we were provided the ideal level of resiliency. So, we came out last May with a 10,000-mile map that we've all been kind of looking at—it's been posted on our website since then—that we've been talking through. At the same time, we went out to bid for construction for up to half the network in terms of the quantity of miles. As the bids have come back, they've been 40% higher than I think we were anticipating, understanding that there's A: some robust inflation in the time since, but also understanding that the Federal ARPA funds that we're using and all of the other funding that's being made available throughout the country means that there is an increased demand for labor and expertise. So, I think that's our understanding of really why a lot of the costs are coming in higher than anticipated. And what I really want to draw our attention to, and we've talked about this in the past as well, is our implementation approach. In addition to going out for construction bids, we also went out for using what's called an RFI squared process where we went out to industry and really looked for any and all alternatives. And this could include leases—it could include leases of specific components of infrastructure as well as joint build—to really try to cast as wide a net as possible. So that that's another enormous effort that we that we have gone to. And we've learned that there's a lot more opportunities available there than I think we were expecting and at a more cos effective rate than we were expecting overall. So, these are some of the important updated assumptions that we have going into and finalizing our optimization process. We're going to jump to the next slide. So, in terms of what we're going be talking about here is a phased approach. We went

through and looked segment by segment of the full 10,000-mile map. We looked at, again, where all of the unserved communities were and really the distance to the network—I think that's also a key element. Also, going through looking at the resiliency we had built into the 10,000-mile network and then, again, trying to make use of all of the most cost-effective approaches to the project. These are our leases, and our joint builds, and even some purchase opportunities. And so, this is really a lot of the key information that's fed into the phased approach we're going to be talking about here. Can we go to the next slide? In terms of our objectives, we talk about the maximum coverage of unserved households. In terms of the overall map, we looked at 5 miles from the network; we looked at 10 miles from the network just trying to make sure that as we decided where and when and how to go about the project, we were maximizing that that coverage. We also—and I think this has come up in several conversations since that we last met, in terms of meeting the State's labor objectives. Regardless of the way that we develop this, regardless of whether Caltrans is building it a partners building it, or even if we're going to be leasing infrastructure that is going to be installed specifically for the State – under all those circumstances the State pays prevailing wage. We want to make sure that everybody understands that we are meeting that commitment. Similarly, we are looking to maximize the linkage. We talk about providing middle mile that that really need that last mile linkage. So, we want to make sure that as the Public Utilities Commission, for example, goes out with their Federal funding account grant application process, which is currently open, that applicants have an up-to-date map to understand where they would need to connect to – where those opportunities are – and we work on a weekly basis with the Public Utilities Commission to update our shared information there. The last objective here is to really maximize all the funding available. At this point, there's a \$3.25 billion that is provided by ARPA. There was another \$550 million that is being provided in the general fund and then, as noted, we have in the last month received approval for a \$73 million grant from the NTIA bringing our total to the \$3.87 billion. Shall we move to the next slide? So, what we see here is Phase 1. We talked about a phased approach; the focus here is Phase 1. This here is a map of 8,300 miles, proximately. This is what we believe, with the current funding level, we can afford to develop. This would be developed within the Federal ARPA timeframes. We have to have all of those funds under contract by the end of 2024, with the funds liquidated and with an operational network by the end of 2026. And so given the funding level and given all of the analysis that we've done, this is the 8,300-mile map that we have landed on. There's been some discussion at the last MMAC, as well as others, looking at how we're delivering it. I think a key point we wanted to focus on here is that when we look at this map here, I hope folks can see it, it is about two-thirds blue. What that means is the blue represents alternative methods of delivering the network, alternatives to standalone construction. And so that would be leases, that would be joint builds. So, what we see up here is that the overall architecture we will be leasing of approximately 4,500 miles is what we would expect. We're still in negotiations trying to finalize some of

these deals, so we we're limited in how much we can share in terms of more specific details. But we did want the members and the public to understand the various ways that we're considering, and really if they can look at a map and be able to see how their segments are going to be delivered. In terms of that, this also reflects 1,800 miles of Caltrans Standalone construction that will be moving forward with those – the orange sections. The blue also includes 500 miles of purchases. And again, we note that the \$73 million in the NTIA grant is included in here. We can go ahead and go to the next slide here. One of the key things, and this looks a lot like it did last time in terms of when we look at the overall 10,000, we just looked at the 8,300-mile map. When we look at the overall 10,000-mile map, this is still the architecture we would expect. And we can see, I think Caltrans is hard to read there, but I think it's about 35% that would still need to be constructed between Phase 1 and Phase 2. But we can see here – and I think this really illustrates that by sharing the cost of development, sharing the cost of construction, and with industry – we've really been able to make the funding go significantly further than it otherwise would, and was really envisioned two years ago. So, I think the team has done a lot of really good work to look at every alternative, to make Phase 1 as expansive as possible, and to reach as many of the unserved communities as, again, regardless of where this is, we're pursuing 288 count fiber and the same frequency of access points. This is going to really limit our vulnerability to in terms of having to build at high-cost areas and in the end, the State will own and manage the network. We can go to the next slide here. Now in terms of Phase 2, we're looking for alternatives to how we can develop that as well. One of the key components we'll be looking at as we move to construction is exploring design alternatives; reduce number of conduit, perhaps, or depth. There's a number of design decisions that we want to explore with the construction contractors to see if we can save some money there in construction. Any phase savings would then go to Phase 2. And we would be doing that an incremental basis, so that's something we'd be coming back and reporting to the MMAC on. Similarly, we talked about the sync up with last mile funding. So as the PUC is going forward with funding last mile projects, there can be essential middle mile components that might be included in that. And so, to the extent that some segments are necessary in Phase 2 to really provide that connectivity for those last mile members or for the last mile communities, that's another alternative, perhaps, for closing the gap in some areas. And then there's always the obvious solution of continuing to look for other Federal funds. We know that the Federal funds as well as other sources of where broadband funding really continues to become available nationwide. Next slide. This here is the timeline. I apologize, a lot of what's been done is kind of grayed out to the point where it's not terribly visible here. But the really, the key three points I want to point to are the Quarter 1 through 3 here, the optimization Phase 1 development that we're presenting here. That's been the major focus of trying to get to where we're at today with the phased approach. We can see that we're expecting construction to begin in the months to come here, and Caltrans will be talking a little more about that. And then another key point I want to note is that when

we look at completing the project, we look at the ARPA deadline by the end of 2026. You could note there that the lease segments we expect to be online and be able to start providing connectivity in mid-2025. So overall when it comes to the ARPA deadlines, we're about 18 months ahead of schedule. And similarly, when it comes to the leases and when we're going to be able to provide some connectivity through the leases, that also is, again, 18 months ahead of where a lot of the other construction will likely be able to come online. Next slide. All right, and the last thing I want to point out here – I mentioned earlier, we've now received over 1,000 miles of fiber as well as the over 1,000 miles of conduit. One of the early steps we took last year was to go out for procurement for materials that we knew would be hard to get, materials we knew that there would potentially be constraints, as the rest of the country ramped up – and really worldwide. And so, we knew we wanted to get in the front of the line, if you will, and so to that point we went out and procured several thousand miles of material, and that is begun to be delivered. You can see here we've been able to visit a local site where it's being stored, just excited to share with you, really, some material progress in the project. That's the end of my update.

Chair Bailey-Crimmins: Thank you, Mr. Monroe. I'd also like to acknowledge Assemblymember Boerner has joined, and so, thank you very much. We would like to open it up to the members here in the room if there's any questions. And then I'll then open it up to members that are online. Any questions for here in the room? Yes, Secretary Tong?

Secretary Tong: I do have a question, and two things. One is, thank you for that. Graybar, I think, was one of the vendors with all the supplies. That was great to see just the kind of, massive volume of lines and conduit. I mean, we're talking about that – what's only a portion of what the state of California's going to have on this middle-mile. But that is just overwhelming, so really appreciate the work that the team is doing and your leadership, Mr. Monroe, and the Director, for continuing to move the ball forward. My question is specifically on, I think, there was an earlier slide – I think it was slide 10 that talks about that regardless whether it was a lease, a build by Caltrans, or joint build, or possibly even the purchase – which that's at 500 miles only, the designed requirement for all of that is 288 threads of fibers?

Deputy Director Monroe: Yes, thank you for that question. What I'll say is, yes, that's been our intent as we as we approach all of the partnerships in terms of the design, is being able to have that. I can't see for certain that every single mile will be available, and that's the only limitation is what materially is available. But yes, that is that has been our approach to all of this. And I think it's something that, fortunately, all of the network will have that same fiber count and the same frequency of access.

Secretary Tong: Okay, that's good. And then also the fact that, again, regardless whether it's a lease or build, or joint build or buy, I also saw the bulletin that California will be owning and managing the network. So, from that aspect, it's less relevant how those network miles would be obtained, but about the ownership, the ability to maintain it as well as the requirement of having ADA fiber count. It's a standard requirement for all of these?

Deputy Director Monroe: Yes, that is correct. CDT will have full ownership to make sure that the public is getting the highest quality service.

Secretary Tong: Great. Thank you for that.

Chair Bailey-Crimmins: And I wanted to first let my colleagues go first, but I wanted to ask a question. When will the map be available? I know folks are taking pictures of it, and it's fairly small on the screen. Can you, Mr. Monroe, let folks know when that will be available on the website?

Deputy Director Monroe: My first answer will be as soon as possible. I think our team is already working on being able to add this as a layer to our public website map. I would say I expect it within a month, and I'm hoping within a week or two. I can get back to you with some more specifics on that, but I know that the team has already been working on being able to update that in our system. We want to make sure everybody can have access to it as soon as possible. The other thing I will also note is that by early next week we normally will have the slides from the Middle-Mile Advisory Committee posted on our website, so the map that was perhaps difficult to see here this morning will be there and much, much more visible.

Chair Bailey-Crimmins: Thank you, Mr. Monroe. All right, President Reynolds.

President Reynolds: Thanks. No questions, but I did just want to thank Mr. Monroe for the presentation and commend you for all the work. I know this is a huge project, and in particular, in securing the NTIA grant. The additional funding, the dollars that we're looking at here are huge and every bit counts. So, I wanted to note that that's great to get that additional funding. Thank you.

Deputy Director Monroe: Thank you.

Chair Bailey-Crimmins: Thank you. All right, I'd go ahead and open it up to the members online, can you? I can't see the screen, so I apologize, but if maybe Alicia, if you could call on the members for me?

Alicia Alvarado: Yes. Assemblymember Wood?

Assemblymember Wood: Yeah, thank you.

Chair Bailey-Crimmins: Assemblymember Wood, I know you don't mean to sound like a robot, but for some reason the cell phone doesn't seem to be working. Can we try again?

Assemblymember Wood: I don't know if you can hear me, but...can you hear me?

Chair Bailey-Crimmins: No, we can't hear you, but maybe we can do a call-in? Why don't we go ahead and figure out a way to do a call-in? In the meantime, is there another member that might have a question while we get the technical difficulties resolved for Assemblymember Wood?

Alicia Alvarado: Assemblymember Boerner?

Assemblymember Boerner: Yes, I want to thank you. And I'm sorry that I joined a little bit late, so if you've covered this already or if it's later on the agenda, please feel free to table this question. I really appreciate the timeline, appreciate the detail. You know, one of my biggest concerns is how the middle-mile will work with in-mile, and you had mentioned in your presentation that they could cover it. How is that going to logistically work? That's the first question. The second question is: because we have a public asset and we should use it for a public benefit, how are we ensuring that those who are tapping into the middle mile, who are providing a low-cost option for our unserved and underserved communities, are getting priority in that process?

Deputy Director Monroe: Sure. First of all, the question on the mechanics of being able to connect. The way I've described it in the past is not all communities, not all unserved communities are on a state highway. There's always been an understanding that there would be other, what we'll call middle-mile, needs to get back to the state network. I think the Public Utilities Commission calls that the other essential middle-mile. I think that's always been accepted as, perhaps, certainly one alternative for grant application

requests. So then, if, say, a city needed to build seven miles out to the highway system and now, given this, they're going to need to build another three along that route to get to where the Phase 1 ends, then that's still something we would then continue to work with the last-mile provider on – to make sure that we connect in the same way that we would have before. Does that kind of answer your question?

Assemblymember Boerner: It answers the first part of the question. The second part has to do with, you know, because our middle-mile network is a public benefit, how are we ensuring that we're prioritizing those that are serving disadvantaged, unserved, and underserved communities at a lower cost, and an affordable rate has priority in tapping into cost?

Deputy Director Monroe: A couple of elements, I think, is we're still developing the business aspect of it. The SB156 says that the network has to be affordable and has to be offered at or below market rate. So, I think that's our first guideline as we're moving forward. What I'll say, too, is that when it comes to capacity, our network – with 288 count fiber – we should not be bumping up against any limitations right away. When we talk about certainly lit service, we'll be able to handle that very easily. When we talk about dark fiber services, we anticipate looking at those and limiting and capping the amount that any one carrier would have access to so that we are able to keep it competitive and make sure that there's plenty of access. I think we we've looked at it as maybe 5 or 10% of the fibers just to make sure that it continues to provide maximum accessibility to unserved communities.

Assemblymember Boerner: Thank you.

Chair Bailey-Crimmins: Thank you, Assemblymember Boerner, for the excellent question. We are going to go ahead and go back to Assemblymember Wood.

Assemblymember Wood: Can you hear me now?

Chair Bailey-Crimmins: Perfect.

Assemblymember Wood: Okay. I don't know why the other one isn't working. But anyway, thank you. I just want to say thank you to Mr. Monroe for the maps and all of the work. I am curious, Phase 2? We don't really know when that's going to roll out and how parts of that are going to be prioritized? Unless, I'd love to hear you comment on that a little bit? I guess I'll go back too, because I've got a specific area of concern in

my district in the west county of Sonoma County, where there's a pocket of probably about 10,000 people out there on the way out. And that's now Phase 2. As we look at underserved communities, this is part of one of the poorest areas of my district. In this county, anyway. I'm just curious as you move into Phase 2, how are you prioritizing that? This is an area that's also prone to flooding, prone to fires, so the ability to access information and services is already challenging. I'll just say, right now I'm disappointed to see that it's now a Phase 2 project. But I am curious as to how you're going to begin prioritizing some of the Phase 2 projects?

Deputy Director Monroe: Yeah, thank you for that question. I mean, obviously, if funding were available, we would really aspire to the full 10,000 miles. What I'll say is part of our analysis was to look at communities and try to get as much of the network to within 5 miles of unserved communities as possible. So, when we look at that, I want to say we're in the 70% to 80% range in terms of within 5 miles. So some of those, the last mile funding can be used to be able to tie back to where the middle-mile is. But also, with regards to how we'll use any savings and any feature funding, I think one of our priorities is for any miles that are further away than 10 miles. I think that's been a key focus we're looking forward in to Phase 2. We haven't developed a robust process yet for how we're going to implement that, but I think that's the other side; that for a lot of the State, I think 80% is within 10 miles. So, we're looking at focusing any funding, at least, high priority and focusing new funding or focusing any savings on some of those communities that are further than 10 miles away.

Assemblymember Wood: Okay, well, my staff actually corrected me. That's actually about 20,000 people that live along or close to a state highway that is on the original maps, so there's going to be about 20,000 people that are probably going to be disappointed. As I recognize it'll be a lot of people that are disappointed that we all find ourselves in the situation that's going to be a second phase. I understand why we are where we are. But these are poor folks that've been waiting for long, long time and underserved in many, many, many ways, and now also feeling pretty underserved here as well. So, anyway, thank you for that. I appreciate it.

Chair Bailey-Crimmins: Thank you, Assemblymember Wood. Any additional questions before we go to the next agenda item?

Alicia Alvarado: We have a comment from Supervisor Alejo.

Chair Bailey-Crimmins: Okay, Supervisor Alejo?

Supervisor Alejo: Yeah, thank you, everyone. I'm here at the National Association of Counties Conference. So, my question in relation to that is for Mark. What's the plan to kind of roll out this new additional information with the map? I think it's important to keep the public informed and educated, as well as the press, local government associations. Maybe if you could just speak to, now that we have this map and it's going to be posted on the website in a couple of weeks, what the plan is? To maybe send that out to the press, so that the public could be able to be more aware of the map? And it's a good visual, but I think it's an important phase of the project to be a little intentional and try to make sure that we're letting the public know that this additional information is out there now.

Deputy Director Monroe: Sure. Thank you for the question. A couple of answers. First of all, we had talked about the fact that the Public Utilities Commission is currently taking accepting grant applications for their federal funding account. We've provided this map to the Public Utilities Commission to be able to make that available. That's going to be made public I believe today, or very shortly. I'll let the Public Utilities Commission answer that question. But I think it's a high priority for all of us that it gets out there, so that as the last-mile communities, to your point, consider their alternatives and are developing their grant applications, they'll have the clearest understanding of where they need to build back to. In terms of announcing this, one of the things that we do at CDT is put out a monthly newsletter that provides links and updates on Broadband for All. That includes information relative to the Middle-Mile Broadband Initiative, and we would be able to include a link to the map in that and to use to provide updates to the public.

Supervisor Alejo: Great. And what about progress? Just with Internet service providers, ISPs and wanting to utilize the middle mile network that we're making progress on – is there any updates? Or is that a negotiation still? I just wanted to get an update on participation from the ISPs.

Deputy Director Monroe: Yeah. I don't know if you're able to see the map there but given the Federal funding and the timeframes we're talking about, we work very closely with the Public Utilities Commission to make sure that there's a shared understanding of where the middle-mile network will be, so that last-mile providers know where to connect. And that's one of the reasons it was a high priority for us early on to be able to get maps out there as soon as possible. That's been one piece of that as we move forward here. Now that we've got a clear idea of Phase 1, we're continuing to reach out. One of the things that my colleague here, Scott Adams, will be reporting on a bit later is the workshops that we've had over the last few months, and lot of engagement around the State. A key component of that has been getting information from

communities, from the municipalities, from jurisdictions, from providers, anybody and everybody to be able to present to them the middle-mile and to be able to make those connections. And so, we're proactively trying to gather their information and reach out and start being able to give them the specifics about the network and talk about timing and the mechanics of connectivity.

Supervisor Alejo: Thank you.

Chair Bailey-Crimmins: Thank you. President Reynolds?

President Reynolds: Yeah, thank you. I was wondering if we could take a moment to have Deputy Director Maria Ellis comment on the timing of the posting of the map, since that was raised in the last question?

Chair Bailey-Crimmins: Excellent suggestion, thank you. Okay, Maria Ellis.

Deputy Director Ellis: Thank you, President Reynolds, and committee members. Yes, with a map being released today, we are working with CDT to ensure that we're going to get that up in as timely a manner as possible. When I give my update, we'll be happy to work with any applicants that have questions about this into the future. But we'll probably be more in the ten days to two-week timeline.

Chair Bailey-Crimmins: Thank you for the clarification, appreciate that from CPUC. Are there any additional questions?

Alicia Alvarado: Yes. We have Supervisor Starkey's hand up.

Chair Bailey-Crimmins: Great. Supervisor Starkey?

Supervisor Starkey: Thank you. And I want to echo that the hard work that has been put into this is appreciated. I just want to point out that Phase 2, I'm hoping, will be on our radar as something that can quickly be addressed, because just in my county alone 39 miles are being built. But there's still 42 miles in a major chunk of our highway system that that isn't going to be served in Phase 1. So, I would like to point out that I echo everything Assemblymember Wood said as far as I understand it, I can appreciate it, but I'm really

hoping that a Phase 2 is on the horizon, and that we start anticipating how we can accomplish that.

Chair Bailey-Crimmins: Thank you, Supervisor Starkey. Any additional questions? All right. We'll go ahead and go to the next agenda...

Secretary Tong: Actually, if I could, Chair. Just one more comment. Great questions and really, I think these, Mr. Monroe, folks are just reflecting that while there's good progress on Phase 1, people that are not in Phase 1 are still going to feel left behind, right? And I think we just acknowledged the fact. That's why it is really good to hear the reiteration that the aspiration and the commitment is continue to work towards the full 10,000 miles. Because that is what the needs are, right? Despite whether it's funding is available or not. One thing I want to clarify, Mr. Monroe, is the fact that when the funding becomes available for Phase 2 – not if, when. Because it's either from the savings of the construction that Caltrans and others are going to continue to work on or it's from continued funding at the Federal level which it continues to demonstrate progress in order to earn more investment to the State of California, as well as the collaboration with other funding that the CPUC had looking in what it's called the essential middle-mile, not to further take away the last mile, because the last-mile has its dedicated purpose. But that middle, the essential middle-mile potentially is a possibility when all those combinations come together to fund Phase 2. The prioritization, I want to make it crystal clear, if you can validate that, is going to be prioritized on those households that are unserved and affected, in Phase 2? As opposed to, in Phase 2, there's a combination of unserved as well as there's some resiliency, kind of, a design. Can you affirmatively say that the Phase 2 prioritization will be on the unserved households?

Deputy Director Monroe: Yes, absolutely.

Secretary Tong: Okay. Great. Thank you.

Chair Bailey-Crimmins: Thank you, Secretary Tong. All right next agenda item is the Caltrans update from Janice Benton.

Unidentified Male Speaker: Assemblymember Wood has his hand up.

Chair Bailey-Crimmins: Oh, sorry, Assemblymember Wood.

Assemblymember Wood: No, I apologize for the second question. I don't like to do that. But just a question once again for Mr. Monroe. Do we have any sense or idea of, with the 8,300 miles in Phase 1, how many potential households are affected? What percentage of people are we still leaving behind temporarily while we get to Phase 2? In other words, how much of our goal are we reaching in the 8,300 miles versus the people that are left out in the second phase? And if you don't have that, I know that's probably difficult to put together, but I think it would be helpful. Is this proportional? Is the Phase 1 getting our biggest bang for our buck? I kind of want to know what this means in the big picture. What does the completion of Phase 1 potentially do for us in reducing the number of people who are no longer able to access the middle-mile?

Deputy Director Monroe: Sure, sure. This is something that we are very focused on. When we look in terms of the 8,300 miles, we estimate that it gets to almost 85% of the State's unserved households. It has been more focused on getting to those households and making sure that as many communities as possible are served.

Assemblymember Wood: Okay, all right. Okay, thank you.

Chair Bailey-Crimmins: Mr. Monroe, can you site what that 85 percentile means? What number of households? I know you've calculated that number. Can you put it on the record?

Deputy Director Monroe: Sure. When a lot of this was being developed a couple of years ago, I believe we were tracking a total of about 675,000 households throughout the state that were broken into a number of communities that were unserved. And so that's been a key focus of the program, trying to get to all of the communities that those households are located in. When we talk about 85%, I think there's about 100,000 of those households, maybe a little more, that fall into the Phase 2. Then the remainder, we've got over 570,000 households that are being covered by Phase 1.

Chair Bailey-Crimmins: Thank you for the clarification. All right, any other questions? I want to make sure I don't miss anybody. Is anybody online? Okay? All right. Second agenda item is the Caltrans update from Miss Janice Benton.

Assistant Deputy Director Benton: All right. Thank you and good morning, Chair Bailey-Crimmins, committee members, and members from the public. My name is Janice Benton. I'm the Assistant Deputy Director over the Middle-Mile Broadband Initiative for Caltrans, and we'll be providing the update on the progress being made for the Caltrans

portion of the middle-mile network. Next slide. With the development of the phased approach that Mr. Monroe just presented, Caltrans is expected to construct approximately 35% of the middle-mile network, with an emphasis on the 1,800 miles in Phase 1. For this chart, as shared in the April MMAC meeting, we reported on the delivery progress for the full 10,000-mile network, and the Caltrans project teams are now updating their project limits and work plans to focus on the Phase 1 Caltrans construction locations. We will provide an update on this information at the next MMAC meeting, representing those projects. I would like to note that the work performed to date on miles that will now be delivered through alternative delivery methods will be shared with CDT to support their delivery of the network. Next slide. Caltrans remains steadfast in getting the work underway and in the hands of the contractors and shovels in the ground. We are maintaining close coordination and partnership with CDT with the evolution of the phased approach. Caltrans wants to ensure alignment and concurrence on critical optimization decisions and make certain that we are getting the work in the hands of the contractors in the shortest timeframe possible. I want to note that Caltrans' ongoing coordination with CDT and our State and Federal resource agency partners to ensure programmatic efforts are in place for Caltrans. Constructive projects could also be available for the alternative delivery, such as joint builds. For those joint build projects constructed in the State highway right away, Caltrans will share with the joint builders the programmatic approaches available to them. Caltrans will also share our guidance document with the joint builders to inform them of policies, flexibilities, and streamline approaches, as well as to help facilitate the partnership between the districts and the joint builders. Further, Caltrans will also be the NEPA lead, which allows us to leverage our NEPA assignment, and use the associated streamline approvals for the alternative delivery locations. In fact, the Caltrans districts in Los Angeles and San Bernardino counties are currently coordinating with Arcadian in preparation of their construction of the 306-mile joint build between Los Angeles and Needles in Southern California. Even as Caltrans offers this support and guidance, I want to highlight the ongoing progress Caltrans' teams are making on the environmental right-of-way, permitting, and approvals for the miles that we will be constructing. And I will touch on those in the next slide. For the approximately 35% of the network that Caltrans will construct, we are verifying the optimization decisions for the project segments and confirming the schedules. I'm sorry. Go back, not ready to move forward. So, we are verifying the optimization decisions for the project segments and confirming the schedule so that we can report on the delivery plan at the next MMAC meeting. And in the meantime, we have been coordinating with contractors to identify opportunities for innovations in the construction methods, and we will continue to engage with them, as Mr. Monroe mentioned, to also get input on the installation of the infrastructure to identify any additional cost-saving opportunities. Okay, next slide. And as mentioned at previous MMAC meetings, we benefit from the Caltrans. Established partnerships and relationships that we have with our programmatic partners and

permitting partners. Some programmatic permitting that we've talked about. One is the statutory exemption with sequel that was provided via SB156. The other is the Caltrans, NEPA assignment from Federal Highway Administration. Another one, the stormwater permit required by the State Water Board, also referred to as the Construction general permit. Also, the programmatic agreement for the Cultural and Historical Preservation approvals through the State Historical Preservation Office, also referred to as the Section 106 Programmatic agreement. Since the last MMAC meeting, the US Army Corps of Engineers has issued their programmatic permit, also referred to as the Regional General Permit under the section 404 of the Clean Water Act. And close on its heels, we anticipate the State Water Board to issue its section 401 programmatic permit related to water quality and waste discharge requirements. Lastly, for every project, even with the programmatic approach it approaches, 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. And then, as I mentioned earlier, these programmatic approaches for environmental approvals and permits are available for the alternative delivery, such as the joint build efforts. The streamlining process developed for Caltrans to construct the broadband projects are also available to the joint builders should they choose to utilize them. And because of Caltrans NEPA assignment, the joint builders will benefit from the Caltrans programmatic permitting option, such as the section 106 programmatic agreement that I mentioned earlier. Alright, next slide. And so, as I mentioned, Caltrans is focused on handing work over to contractors and getting shovels on the ground. This slide shows one of the first work orders we expect to issue for a 10-mile segment at Mendocino County on State Route 20 from the junction of US 101 to the Lake County line. We also anticipate doing a work order for a nearly 8-mile segment on Interstate 5 in Shasta County. And by the end of this year, we anticipate issuing work orders to contractors for more than a dozen segments across the State. This includes projects in various counties, including: San Joaquin, Alameda, Santa Clara, Los Angeles, Ventura, Riverside, and San Diego counties. This concludes the Caltrans update. Thank you for your time.

Chair Bailey-Crimmins: Thank you, Ms. Benton. All right. Do any of the members in on the dais have any questions or comments?

Secretary Tong: I feel like I'm the most talkative. Sorry, guys. I know it's Friday morning; you guys want to get this done. Thank you, Miss Benton, for that update. Just one thing I want to maybe get clarification on. There was a lot of work that was being done on the pre-construction planning for the 10,000 miles, regardless whether it's construction or lease. And I appreciate Caltrans trying to doing that, just really from a time saving aspect. Now that there's more certainty in terms with the combination of the Caltrans build and the joint build, there's still good 50% construction still going on. Is it true that

even the joint build constructors will be able to take advantage of all the preconstruction work, the permitting work specifically, that is already in progress? So ultimately, the goal here is to save time and move these constructions faster, regardless who's actually doing the actual construction work.

Assistant Deputy Director Benton: Yeah. So, any work product that we produced on any of those miles, regardless of Caltrans building or not, we will be handing over to CDT, and then they can share that with their other partners, with the other delivery methods. So absolutely everybody can leverage any of that work that has been completed.

Secretary Tong: That's great to hear. And then follow-up question to that. Even though the Phase 1 is about 8,300 miles, Phase 2 is so very much in progress, and all of those preconstruction work would also, in fact, become a time saving when phase 2 is ready to trigger?

Assistant Deputy Director Benton: Yeah. So, we're not stopping on the Phase 2 miles. We're continuing to focus on the Phase 1 as the priority, but we are continuing to work on the Phase 2 miles as well.

Secretary Tong: Excellent. Thank you for that.

Chair Bailey-Crimmins: Thank you. Secretary. Tong. All right? Do I have any members online that have any questions? No? Again, one more time in the room. Thank you, Miss Benton. Excellent progress there. The next update we have is from Golden State Net and Tony Naughtin.

Tony Naughtin: Thank you very much, Director. I'm Tony Naughtin, President Chief Operating Officer of Golden State Net. I'll start out by saying it's great to be here in person for the first time at this meeting and thank you for that opportunity. I'm going to provide an overview today on the significant amount of work volume for network development and then early business and product development since the time of the last MMAC meeting that Golden State Net has been engaged in. This includes network planning and google construction and use planning, network engineering procurement support, operational and support service planning, product management and business development. I'll provide updates on all those areas in this presentation. It's also worth noting that over the last 90 plus days Golden State Net has grown significantly in its contractor staff engaged in this execution project over the next 2 to 3 years. If we can go to the next slide, please. There's been quite a bit of work going on with regards

to network development and engineering of the network. This includes right of way and permitting. That work is getting towards completion, especially with regard to network routes that go beyond and off of the Caltrans right-of-way in certain limited instances. With regard to huts and hut systems, which I've spoken about previously in meetings, the specifications and analysis work for those are nearing completion and have been largely completed for a while. Although the last remaining hut locations, particularly those with regard to off route off right away, those are really the remaining few that need to be finalized, as well as analysis of power loads and heat dissipation within those huts to ensure that they perform and the equipment inside of them performs in an optimal fashion. Additionally, acceptance testing protocols and processes both for the optical fiber assembly as well as the Hut systems. Assemblies are being worked out as part of the Q.A. and quality control processes that we are focused on for these 2 assemblies. There are also multiple procurement processes that we are providing support for. Of course, in the past I've mentioned back-office systems, as they are called, for things like customer relationship management billing inventory. Those types of things. And of course, we're continuing to support the procurement efforts with regard to both the active and passive electronics that will support this network system. It's worth noting, there's been significant done work done recently with regard to the network lab that we will need in conjunction with this effort; specification and procurement work for that laboratory. The lab is quite important to validate the design of the network management, overlay validate, and confirm optimal configurations for network devices long before they're ever deployed in the field so we can make sure that the network is not only optimal in its performance but also can be upscaled with capacity as needed in the years ahead. If we can go to the next slide, please. We've been working very closely with CDT, of course, and with Caltrans with CDT. A significant amount of work product has been created to integrate the work product and planning efforts from all the agencies involved, so that all joint or job order contractors have clear indication and direction as to what their responsibilities will be with regard to both hut and fiber assemblies, both of which are civil engineering as we've referred to in the past. We're putting quite a bit of work on the development approach for the construction of these assemblies and particularly those, as I mentioned a moment ago, that are in some limited instances off or beyond the Caltrans. right-of-way. Significant and complex tasks are involved here, even though they are limited in number. And it has to do with getting off that right away and continuing on with construction of the optical fiber plant, and then, of course, the assemblies themselves. And doing it in a way that maximizes efficiency so that when we have boots and machinery on the ground that have fulfilled their construction work to the end of a Caltrans right-of-way, but the route carriers beyond that right-of-way, those resources can remain there and continue on to continue with that work and meet up with the right of way down the road. We're coordinating with CDT and Caltrans to develop workable processes and approaches for field engineering inspection of the optical fiber assemblies and the hut systems

assemblies to make sure they are meeting our specifications. We'll perform it in an optimal way once the network is in production itself. In a network of this size, that's a considerable effort, and quite important to ensure that we minimize network events and interruptions and service to the highest degree possible and operate the network in a reliable, consistent fashion. As I said before, a carrier class type of network is the standard of performance that we are intending to bring to this to this operation. If we can go to the next slide, please. I think it's also worth noting that we're now in the early stages of business development and product management. As the operator of the network under the Third-Party Administrator agreement, we will be taking these services and products to market on behalf of CDT. Along the lines of business development and sales current key activities include refinement of the go-to-market plan for direct sales and channel distribution sales. Revenue forecasting both near term and long term, because the network, of course, must be self-sustaining and have the ability from revenues generated to support maintenance and operation costs over the years ahead. Planning, recruiting, and building a sales organization that will consist of account executives and sales, engineers and sales administration, and the process that's needed to run the sales and go to market effort in as optimal fashion as possible. On the product management side, this involves analysis of market geographies. First of all, accounting for unserved and underserved areas, carriers and service providers who will serve those areas, and other areas as well. And government and enterprise customers who will be able to take advantage and use this network as an open access network, as we've talked about in previous meetings. We're further developing the product service catalog from the standpoint of the customer marketplace, the requirements by customer type projecting product and service market demands, and true product management for the products and services that will be offered on this network. That also, of course, quite an importantly, includes economic and pricing analysis for the products and services. And as Mr. Monroe mentioned those must be provided other SB156 at or below market rates. So, there's quite a bit of a product economic analysis work taking place in that regard. Quite important to note here is the amount of work that we have been engaged with alongside CDT to engage and participate in multiple outreach meetings around the State focused on broadband equity. These have been local and regional community outreach meetings, focusing on program solutions for towns, cities, regions, and quite importantly, of course for tribal communities around the State. There have been ongoing communications that work with numerous tribes both those on the Caltrans right-of-way and those that are not on the Caltrans right-of-way. Numerous individual and regional tribal meetings have taken place to provide information about this network. Especially after those meetings after those regional and local meetings I referred to follow up meetings with tribal representatives and other community members on site to make sure that they have a full understanding of the capabilities and service offerings of this network as well. We've worked closely with CDT, as well, to be a key source of information. 2 tribes and other

community organizations about multiple available funding sources for the development and connection of last mile networks. In addition to the funding available from the CPUC, there are other Federal programs that CDT and GSN are making sure communities and in particular tribal communities are aware of and can take advantage of. It's also worth noting here, a very important type of work involving the tribes. And that's negotiation and coordination with tribes in cases where network routes may be crossing tribal lands. A very important aspect, given the nature of tribal lands. And we're spending quite a bit of time on that effort as well. With that said, that actually concludes my presentation. I'm happy to address any questions you may have.

Chair Bailey-Crimmins: Thank you, Mr. Naughtin. It's a pleasure to get an update from our Third-Party Administrator. This time, I'm going to go to online first to see if there's any questions. None at this time. Okay, I would like to, okay, President Reynolds?

President Reynolds: Thank you. And thank you very much for the presentation. It was very detailed and informative, as usual. I really appreciated it. I have a question just to make sure I and the public understand the terminology. You refer to a network lab and the procurement and specifications that you're working on for that. Could you explain what that is?

Tony Naughtin: Sure. It's essentially a contained environment not on the production network itself. And in most cases heavily utilized in advance of deployment of network or network segments. It's essentially an environment that allows us to make sure, first of all, that the network management system, which, of course, is responsible. It's a piece of software that monitors the network on a 7/24 365 basis, making sure that it is set up and configured properly. A network orchestrator tool which is intended to not only perfect the devices on the routing and switching devices themselves, but to optimize those configurations as software on the routing and switching devices. And then certain other types of network engineering testing, with regard to application support network security. Always good to specify and confirm these various kinds of capabilities in our offline environment before we're actually deploying network in the field. So, it's really a confirmation and testing environment, if you will.

President Reynolds: Okay, great. And then I appreciate the summary of the community and tribal outreach. And I know that all of the State entities have been doing a lot of outreach, including the work that Mr. Adams is doing, and that CPUC Staff is doing. I just want to make sure that Golden State Net is coordinating the outreach, and that your extended invitation to reach out to CPUC Staff if we can provide any information to the extent that we don't have folks there physically?

Tony Naughtin: Yes. And quite frankly, I think we could do more of that type of outreach than we have been able to do up to this point. Just this week, I've had some discussions along those lines and one of our staff members is particularly familiar with the processes and individuals at the Commission. And she is working to create a continual interface and communication and information provision for these purposes. We're more than ready to do that now, and we want to make sure we're well coordinated with the PUC as well as with our agency partners.

President Reynolds: That's great. Thank you.

Chair Bailey-Crimmins: Thank you, President Reynolds. Any other questions? Yes, Secretary Tong?

Secretary Tong: A follow up. I wanted to echo what President Reynolds says. Probably, folks have seen on the presentation thus far, and there's more to come, right. It is very complex work involved from building the middle mile as the super digital highway, and then we're going to hear from CPUC on what that coordination looks like on the last mile. Because without that, the last mile doesn't mean anything, right, to ultimately lead to every household gets connected. And from there there's a whole outreach program. I know we're going to hear from Mr. Adams, later on, that the whole digital equity plan that is being created from all of these engagements that you all had. So, the digital literacy and all of that making it affordable. All those needs, all the stars need to align in order for this work. So, from that aspect, I would just call out, not only to our third-party administrator, but CDT, CPUC, Caltrans, but even the contractors who are helping all of this construction. This is a massive undertaking. I don't know if people realize how historic this can be, and also how massive and complex this can be. So, to the degree that everybody understands their role impacts others so that they are for encourage that level of coordination, I think it would go a long way that even though all of these complexities are behind the scenes, by the time our community hears it, our households, those needing this, it's simple for them, right? They don't have to figure out all the alphabet soup of what this all means. So, that's maybe one more of a statement than a question.

Tony Naughtin: And well-noted. Go ahead, please.

Secretary Tong: Yes, and two. Sorry, that's more of a statement. And two, I do want to applaud Golden State Net for your continual effort. A lot of conversation right now is just getting the miles built, meeting our commitment with the 10,000 miles, and then how is the last mile coordinated. But the whole operating of the network. Go to market and

testing all the connection before it is going to turn on. That work really requires a lot of planning ahead as well. So, the last thing we want is you have line ready, but they're not ready to turn on. That's just going to be losing time over that. So, I just want to applaud you all for your moving ahead on the business development plan from go to market strategy as well as getting the network to be turned on. Because all of these will become an on a flow basis, right? We're not waiting for 2026, or whatever the year after is. As soon as these lines become available, they get connected last mile and are good to go. So, I appreciate you guys. This proactiveness on that.

Tony Naughtin: Well, thank you, Secretary. We appreciate the acknowledgment of those things. With regard to your first point, it's interesting because Director Bailey-Crimmins and I were touching on this earlier this morning in a discussion. There are multiple concurrent activities going on in the execution of this develop of this network, and that's a bit different than it would be for example, in a typical commercial network build. In a commercial network deployment and build effort, I would say it's more sequential in nature and sequences in those efforts can overlap and typically do. In this effort, it would be more accurate to describe it as if we are engaging and executing multiple sequences more or less, all at the same time. And that has to do with two things. First and foremost, a very important aspect of this entire program, which is the time to service. How quickly can we deliver this to those who need it most? Those who need it most are unserved and underserved communities, households and small businesses, and those on service places. And second, the time constraints under the Federal funding of this program which we are not assuming will be extended in any fashion. And, therefore, the concurrent execution of all these sequential activities as one single activity does indeed, to your point, requires quite a bit of planning, coordination, communication and trust. And we're we've been very focused on that challenge since the early days, going back nearly two years ago. We continue to enjoy the opportunity to work very closely with CDT, with Caltrans, with PUC. And in particular, the communities that are to be served by this important and historic program. Because I think it's important to note, and we all know this, but I'll say it: this effort is about people. It's about serving people who have not been served, and in most instances, they need this the most. Tribal areas, urban locations and major metropolitan centers neighborhoods of color. These are the objectives of this program as well as servicing others in the state. And also providing an opportunity for those who are on the enterprise or service provider side to expand their network usage and capabilities in a more affordable fashion, which I think is good for the commerce of California as well. So, again, thank you for this opportunity.

Chair Bailey-Crimmins: Yes, Mr. Keever?

Chief Deputy Director Keever: I know we're press for time, so I'll try to make it a very direct question. Hopefully a quick answer. You spoke at length about the huts. Can you talk about one, for the public's benefit, what is a hut? Can you talk about Caltrans' role in delivering the huts? We talked primarily about the installation, I think of fiber and conduit. And then how many huts are we talking about?

Tony Naughton: I'll address the last question first, if I might, so I don't forget. Over the 8,300 miles in Phase 1, we currently are looking at approximately, if not exactly 161 huts. And these huts perform multiple functions. The primary function of which is a reamplification of the signal on the optical fiber. Approximately every 50 miles the signal has to be re-amplified, so it doesn't diminish. That's the traditional and primary purpose of these huts. In this program, we're also using the huts as an important distributed way of aggregating access to the network, as Mr. Monroe has mentioned, in relative terms to the commercial carrier world. For example, we are generously dropping access of vaults about every half mile. And these can accommodate licenses from last mile providers and other customers or users who otherwise wouldn't be able to necessarily use a so-called layer to transport circuit from an existing provider in their area to access the network. So, amplification of the signal and reamplification access. And then a third important use of the huts has to do with distributed co-location of two important things. Our network switching infrastructure, the routers and switches that will provide these services are being distributed as closely to the virtual edge of the network as possible by placing them in huts as opposed to more centralized locations, such as central offices or data centers. So, getting that switching fabric out there to the edge of the network improves performance and latency for everyone and keeps local traffic local. As opposed to having to transit it to an exchange point that can be, and typically would be, hundreds of miles away just to come back for an interaction between two people who are in a single geographic location. So, the other aspect is co-location of third-party servers. There will be enterprise and civic community organization customers who wish to place their network presence or network usage application and services on servers. And these huts, though not extraordinarily large in size, will be large enough to accommodate co-location for these purposes. The huts are not technically data centers, but they are being engineered, and specified, and will be deployed as if they are small versions of data centers. Both for network integrity purposes and also to maintain a very good strong security around these huts, since they will be unmanned. We don't want these hut assets to be vandalized or abused in any way possible that would endanger the operation of the network.

Chief Deputy Director Keever: Can you speak to the role of Caltrans with the delivery that?

Tony Naughtin: Yeah. Sorry, you did ask about that, yeah. So, we are working closely with Caltrans in this regard to this, because the huts and the hut systems that go inside the huts are part of civil engineering, And this is an important piece of it, not only in terms of the coordination we're doing with Janice and her team right now. But once we're in the deployment and execution processes in the field, the quality assurance inspectors I mentioned earlier will play a key role, certainly, on the fiber assembly construction, but especially on the hut and hut systems to ensure quality assurance. To ensure they can pass acceptance testing, As I've mentioned before, the huts are a very critical aspect of this. We want to avoid situations where you have problems with any of the huts from day one. My experience over many years has been where you have that type of issue in an amplification, facility, or reamplification facility, it can become a problem child. And we want to make sure we avoid that problem by making these huts perform as perfectly as possible from day one. So, we're on the quality assurance part of the fiber and how to sublet, but it's particularly important, especially with regard to the hut and not systems assemblies which are very complex, And there are 161 opportunities to do it right the first time. And we intend to do that.

Chair Bailey-Crimmins: Thank you, Mr. Keever. That was an excellent question. All right; I think that concludes the Golden State Net update.

Unidentified Male Speaker: Sorry, we have a couple of questions online.

Chair Bailey-Crimmins: Oh, I apologize. Okay, Supervisor Alejo?

Supervisor Alejo: Thank you very much. I wanted to take a moment just to recognize the work and outreach to our tribal governments. I think that's an area that doesn't get spoken about very much. My question was just to the point about the information being provided to tribal governments for connecting last mile. Could you elaborate more on whether tribes are applying to draw on those resources? And also, whether they they're provided any technical help with these types of last mile projects and all the other requirements that come along with grants?

Chair Bailey-Crimmins: Supervisor Alejo, I think that would probably be an excellent question for CPUC. Maybe if I go ahead and, Maria I don't know if you want to answer that question now, or if you want to go ahead and include it as part of your presentation?

Deputy Director Ellis: I'm certainly happy to answer it now. I was going to touch on a little bit, but yes. We've done some excellent engagement in in partnership with CDT, which Scott will talk about shortly. Specifically to tribes, we've done probably 3 regional and one statewide virtual consultation, jointly. We have done some great engagement and have gotten great feedback that is going to be part of the record for us on our BEAD proceeding. As a result of that, the CPUC has also received requests from 26 requests for individual consultations, and we are scheduling those currently. And we'll be doing conducting those as part of the BEAD proceeding.

Supervisor Alejo: Thank you.

Chair Bailey-Crimmins: Thank you, Miss Ellis. All right. Assemblymember Wood?

Assemblymember Wood: I pass.

Alicia Alvarado: He said he will pass.

Chair Bailey-Crimmins: Oh, thank you. All right. We'll go ahead and go to what's going on with the Office of Broadband and Digital Literacy with Scott Adams. And thank you, Mr. Naughtin, for everything that you do.

Deputy Director Adams: Thank you, Chair Bailey-Crimmins, and good afternoon committee members and members of the public. My name is Scott Adams. I'm the Deputy Director of Broadband and Digital Literacy at the Department of Technology. And it's my pleasure to give a brief but important update on the stakeholder engagement that has gone on over the last couple of months since the last meeting. If we can move to the next slide, please? I think it's been reiterated before that Broadband for All, and the related programs, are incredibly complex and multifaceted, interdependent, and complementary to get to the goal which is to serve residents and have them thriving in this technological world that we're doing. To that end, we have taken great care – both the Department of Technology, the Public Utilities Commission, Caltrans and other state agencies – and have engaged with thousands of California residents and stakeholders over the last many months on all of the Broadband for All programs and initiatives. And specifically, the middle and the last mile because it's really important to always appear, those two together, given how critical they are to one another. And the various formats that we've engaged with folks have been in large scale virtual meetings, in-person regional meetings to get out behind that computer screening – to really hear the lived in community experiences in person, because that's

what's most important. As others have noted, there's been many individual meetings and consultations with cities, counties, tribes, other entities. We do communicate, as Deputy Director Monroe had mentioned, through a monthly Broadband for All email update that we all collaborate on and have built a database of about 5,000 California stakeholders and partners that we communicate on a monthly basis with about updates on all the various points and house information on the broadband for all portal and other supported websites. So if we could go to the next slide, please. I really want to let the images speak for themselves, and not so much the words. The big highlight, I know, Tony touched about it in part of GSN's update, and Maria spoke briefly. But we've been on the road for the last several months and have conducted what amounts to 20 Broadband for All Digital Equity and BEAD planning regional planning workshops and every economic region throughout the State. And we've conducted three separate group tribal consultations in partnership with the Public Utilities Commission that are aligned in the Southern California tribes, the Central California tribes, and the Northern California tribes. What is really important for you all to know, because we've heard Secretary Tong mentioned the complex nature of these programs, just to understanding and navigating how these work and complement one another. The focus of these workshops has been to really update residents on the existing Broadband for All investments and efforts, which included the middle mile, the last mile, and the massive statewide mobilization to increase involvement in the FCC's affordable connectivity program. Which is critically important to adoption and not necessarily a sequential step, but something that happens concurrently. These workshops have also provided the Department of Technology and PUC a critical opportunity to engage directly with residents and community-based organizations and local jurisdictions to get their direct feedback on inputs for the State's Digital Equity Plan and the BEAD plan which are going to draw down on additional, billions of Federal dollars, or already have, to support the aims of Broadband for All. And then, lastly, what we have done: hearing from the committee and the Legislature on the ecosystem is built in a broadband infrastructure, planning workshops. At each of these regional planning workshops, where we had the Department of Technology's Middle-Mile Broadband Initiative team and GSN go over the construction, evaluation map and kind of talk through how the middle mile was going to impact their communities and entities within there. And then really would do the next portion of the workshop and explain, "here's the speed" of last mile programs that, whether it's the California Advance Service Fund, or I'll let Maria speak about the programs. I don't want to steal her thunder. But our intent was to get those two entities, together with local ISPs, and planners, and other entities that we're looking to leverage both to support their understanding that the programs are available, but also how to tap into them and work as expeditiously as we are on that. Another point is that our team and GO Biz also built in a component of that to educate folks about the local jurisdiction permitting playbook. Because as important as permitting is to the middle mile, it's going to be equally important to expediting the deployment of the last mile

infrastructure projects that are funded by the PUC programs. So, I just want to say it's been an incredibly valuable experience. I think that the opportunities helped our individual entities come together in partnership and really present one face of California for Broadband for All. It's allowed us to have a deeper understanding of the communities and their very specific needs. What we'd like to leave you with is to add some dimension to what these workshops look like is. Go to the next slide. Courtesy of the San Joaquin Valley Regional Broadband Consortia and the folks at CSU Fresno, they actually produced a two-minute short of the workshop that we did down in Fresno. We wanted to play that for you, so you get a sense of what those events look like.

Chair Bailey-Crimmins: Thank you. We'll go ahead and play the video.

Video Dialogue:

Fortunately, we all live in a state that has been thinking about Broadband for many years and has just needed some additional tools to make sure there is Broadband for All. So, we are very excited to partner with California and each of you, each of the counties across the State. Because so many of you have been working on this and saying there is an issue for a while. But now is the time, you know, to really take your knowledge, take your experiences and turn them into a plan that results in actual Broadband. In actual training. We have imminent need here, and even though we are one of the most progressive states in the country, there are still huge disparities in some of our rural communities in the Central Valley. Affordability impacts all of us. It impacts adoption, and we have students doing homework in their cars. We have students doing homework on the city bus, because that's where Broadband is, because they don't have Broadband at home. They live in Fresno and everyone thinks Fresno is better, but it's not. They don't get Wi-Fi. I have students who live where they'll be given Wi-Fi, but it doesn't make a difference, because there's no connectivity out there. One of the ways is by trying to expand the universe of Broadband providers. So we're not just relying solely on Internet service providers. We're trying to get our accounting entire city to charge like powers, authority, our tribes to bring Broadband to those places that have been ignored. So all of us, we need to work together to make sure that Fresno and the surrounding the communities in the region to know about this program and they're able to connect to it.

Chair Bailey-Crimmins: Thank you, Mr. Adams. Did you have another slide that you want to go over?

Deputy Director Adams: No, that completes my presentation.

Chair Bailey-Crimmins: Thank you. I just want to state what a heartfelt—this really is taking what we're doing and working so hard behind the scenes and putting it out there where it really matters. And obviously, CPUC, Golden State Net, CDT, California Emerging Technology Fund, the CPOs, the individuals, the leaders that that showed up locally all across the State, the tribal leaders. Just to talk to us about the barriers and making sure that we were staying true to the true north of why of we're all doing this. So my hats off to everyone that participated and, just, excellent work. Thank you.

Deputy Director Adams: Thank you, Chair Bailey-Crimmins. I really wanted to thank you for teeing that up. None of these regional planning workshops could have occurred without the support and close collaboration of the regional partners that we had. Chief among them, the regional broadband consortia's throughout the state, the Metropolitan Planning Organization, SKAG and SANDAG, down in Southern California, and a number of other CPOs, like Oakland Undivided helping put together the Barry Event. It really was a team effort. In addition to expanding and bringing this state team closer, I think it helped us build a broader state team with the other folks. So thank you.

Chair Bailey-Crimmins: Thank you. Thank you for your leadership. I'm going to go ahead and open up remotely to any of the members that have any questions or comments? Okay, not at this time. I will look to my left and right to my colleagues. All right. Well again, thank you so much. And we're going to go ahead and shift to the next agenda item, which is the Public Utilities Commission and Miss Maria Ellis.

Deputy Director Ellis: Good morning, committee members again. My name is Maria Ellis. I'm the Deputy Director for Broadband at the California Public Utilities Commission. I'm going to talk a little bit about our programs under SB156 for last mile and some other related programs. Next slide, please. I want to start first with the Federal funding account, which provides almost \$2 billion in grants to deliver reliable broadband to help close the digital divide to unserved communities. The goal of this fund is to provide direct connection to unserved locations and end users. I am thrilled to announce that, as of June 30th, the CPUC is now accepting applications for this count for program eligibility. Locations that are eligible for this program are those that are lacking reliable wireline connection capable of 25 megabits per second of download and free upload. After funding, the expectation is that the service that is provided is 100 megabits per second,

symmetrical. A variety of entities are eligible for this, including local governments, tribes, joint powers, authorities, ISPs. A variety of individual organizations. I want to touch very quickly on the connection between our partners in middle mile. Applicants that are proposing to connect back to Middle Mile as part of their last mile applications will be required to consult with CDT first before submitting their applications to ensure that that is properly coordinated. And in addition there is a rubric. There is a point allocation within our rubric for these applications if it's connected to the State middle mile. As all the other presenters have mentioned, we continue to work really closely on this and update our information very regularly to ensure that we in are good alignment. Next slide, please. Oh, I'm so sorry. Can you go back one? Thank you. One of the things that I want to mention here is the application window for the for the Federal funding account, like I said, opened on June 30th, and it will close on September 29th, 2023, at 4:00 pm. It's very specific timeframe. That's a three-month window. The reason that we've allocated such a long window is because we know that this is a new grant program, and we want to be able to provide people the time and energy from inside our agency to help them in developing their applications. We do anticipate awarding the first round of grants in the first quarter of 2024, and at that same quarter, opening up a second round of applications. And then there will be an additional round of applications, as set forth in the state budget. We encourage anyone who wants to know more about how to how to access this resource and all of the tools that we've developed to check out our website. Next slide, please. Thank you. Since we know that these slides are made available publicly, we wanted to be able to provide folks some resources that they can point to if they are interested in applying. These are all linked to resources here. It includes our web page, our Grant portal, our video tutorials. What you see on the side there is just a map. It's a snapshot of our public map that indicates the areas that are eligible for funding because they are unserved. Next slide. Right. On to the local agency technical assistance. This program was also funded out of SB156 and provided 50 million dollars in technical assistance to both local governments and or tribes to launch work. Basically, the foundational work that it takes to launch a network or expand a network. From this \$50 million dollars, \$45 million of that was set aside for non-tribal communities – so local governments, and \$5 million was set aside for tribes and tribal nations. We actually have a dashboard on our website that has information about the awards that we've made and applications we've received, And if you look at the map on the side there, that is a snapshot of that dashboard. Since August 2022 through this June, we've received 126 applications requesting \$56.6 million, obviously more than was available. Of these 126 applications, 56 out of the 58 counties in California were covered. While we are no longer taking applications at this time, because we are either fully committed and or requested. We have some applications that we've just received that we are evaluating. I do want to note an important resource for tribes. The California Advanced Services Fund has a Tribal Technical Assistance Fund that continues to be available for tribes to tap into so that they can continue their work on that front. I think this program

just illustrates the fact that we have been so oversubscribed. It just illustrates the need and the demand from communities and tribal nations to be able to kind of be masters of their own destiny in terms of closing the digital divide. We continue to hear requests for more funding on this front. Next slide, please. The California Advanced Services Funds – so this continues to serve as an important tool in under Broadband for All closing the digital divide. We made some program improvements on several of these fronts last year to the Adoption Account and to the Broadband Consortia account and also made adjustments into the Infrastructure Account to implement some of the legislative requirements required for project eligibility. This year, the Commission is exploring improvements to the public housing account, specifically to low-income housing development and mobile parks. On the adoption side, these grants are meant to help entities and community-based organizations deliver digital literacy and broadband access programs. The CPUC awarded 32 projects from the cycle that ended in January 2,023. We awarded 32 projects of for a total of \$2.72 million. In July, the application window that just closed, we received 87 applications requesting \$14.24 million. And I just want to note here that while we were on the road together during this road show and all of the engagement that we're hearing, we continued to hear not only the importance of having basic access to this technology but also education around how to use it. We do understand the fact that we've received so many applications in this last round that really illustrates the need for digital literacy, education, and resources in the State. Infrastructure Grant Accounts. This subsidizes the cost of last mile and middle month infrastructure to expand, call it communications to end users in California. We just closed our last window for funding on June first, and we received 73 applications requesting \$527 million in programming. That is by far, I think our largest request to date for this fund. The Public Housing Account is really targeted towards helping bring connection to housing that is either low-income housing or public housing. And it's expanded that definition to also address other kinds of housing where we know, particularly the Spanish communities, might be dwelling. This award in the January 2023 cycle, we awarded 31 grants for total \$1.52 million. And recently, we received 14 grants to requesting a total of a little over \$873,000. Next slide, please. I'm not going to talk about this slide much. I just wanted to share a little bit about the tools that are available to us. One thing I talked about is the Technical Assistance Fund and I've talked about the Federal funding on the California Advanced Services Fund, which is all of those 6 public purpose programs. One thing to note is that we are currently working on the Long-Lost Reserve Program, and that is an expectation that Commission may take some action on that later this year. Next slide. Okay, so I want to go back up to the top, because I think I my slides are out of order here. So I'm going to start with BEAD. Under Broadband for All we've got these great resources and tools that we've brought together under, with all of our joint efforts. And the leadership from the Governor, and the Legislature under Broadband for All, and SB156. We now have another tool, which is the BEAD program. In late June, the Biden-Harris Administration, in conjunction with

the NTIA, announced that California will be receiving \$1.86 billion in Federal funding for the Broadband Equity Access and Deployment Program, otherwise known as BEAD. So we are extremely thrilled to be to have this award. And this is just another opportunity for us to be able to close that last mile and really bring connection to all Californians. Similar to FFA, the primary goal of bead is deploy reliable last mile service to all unserved locations in California. For the purposes of this program the NTIA has defined unserved as those lacking access to speed at 25 megabits per second download and 3 upload via reliable technology, where the NTIA has to find reliable technology as fiber advanced cable wireless connections. And where this is not feasible, fixed wireless and other alternative technologies can be considered. The CPUC is moving forward with establishing rules through this public deliberative process. The goal of CPUC and being on the road with CDT and others not only to talk about our joint efforts overall under SB156, but also to start getting some intel and insight that could feed into our BEAD program, knowing that this was coming. And we've received a lot of that, and that will be attached as part of the record. It's part of the preceding open rule making that we have. So we can go to the next slide. This reflects a very high-level timeline for BEAD. We are just wrapping up our initial set of engagements with CDT. Specific to BEAD, the CPUC will be doing ongoing engagement. And as I mentioned, we've now got 26 requests for one-on-one consultations with tribal nations with CPUC, specific to BEAD. Those will be part of the record. Notable is one of the requirements for the NTIA's funding is the release of a 5 Year Action Plan. The CPUC has just published this on July 17th, for public comments. We will be receiving initial comments on this through August 7th and reply to comments through August 11th. We will submit this plan, and all related comments to NTIA on August 28th. Then from August to December, we'll be spending a lot of time working on an initial plan which is due to NTIA by the end of this year. That initial plan really lays out the meat and the nuts and bolts, if you will, of the program that we will be developing. It will take into account all of the work and engagement that we're doing and provide the outline for what we hope to accomplish with this program. So, that will be delivered at the end of 2023. In early 2024, we hope to have an approval for that program from NTIA, and that will launch us into what is essentially a 365-day window in which we will run a challenge process to establish eligibility map for the BEAD program and also run an application process and a solicitation process for applications. All of this will get wrapped up into our final proposal which is due to NTIA, like I said, 365 days from the time the initial proposal is approved. And once we get approval, we can continue with our grant making. That is a very high-level timeline. We will be sure to provide additional details to the committee as we're moving forward, because we know that this will be an important tool, again, to build out the vision that we've laid out under Broadband for All. Apologies for the mishap with the slides.

Chair Bailey-Crimmins: Well, you did a wonderful job being able to navigate that. So, thank you, Miss Ellis. I will open it up to the members here at the dais to ask questions. Secretary Tong?

Secretary Tong: Not so much of a question, just an appreciation for both Miss Ellis and Mr. Adams to talk about your community engagements to get lots of feedback. I know that we're talking about here is very, very complex with so many moving parts, and coordination and timing. And with the map update, how you pivot to some of the central middle mile to deal with the last mile, with its updated middle mile. So, all of that, I just, again, just commend you guys on this effort and the tight coordination between the organization.

Chair Bailey-Crimmins: Thank you, Secretary Tong. President Reynolds?

President Reynolds: Can I just second that? That was a fantastic comment. I completely agree. There's a lot going on, and I really appreciate the outreach to communities, and to tribal governments, and then the close coordination among all of the agencies. So, thank you very much for all of that.

Chair Bailey-Crimmins: Thank you, Present Reynolds. Any other comments? Online questions? Okay, online.

Alicia Alvarado: Assemblymember Boerner, please.

Chair Bailey-Crimmins: Assemblymember Boerner?

Assemblymember Boerner: Thank you. And thank you for that presentation. You did do an excellent job navigating the slides. I was trying to figure out why we were talking about June 30th opening when I was looking at the BEAD, and it occurred to me that it might be out of order. When you go back and look at the LATA grant, one of the things I'm very concerned about is you've done all this outreach, but we know we're not getting everybody in California who's unserved. The middle mile with the Phase 2 not being yet funded, like in my district there's nothing that's been Phase 1, for example, for the middle mile. So when we're looking at that, one of the things that occurred to me when I'm listening to your presentation was, you had this oversubscription to LATA grants, which means people need help and not everybody got the help. So when you look at the distribution of the LATA grants that were given, do you feel that matches the proportionality of the unserved alike? Did we get the most bang for a buck with that,

and imagine the proportionality of the unserved population? And if they didn't get a LATA grant, how are we helping them really navigate all the many broadband programs that are out there right now? Whether it's BEAD or FFA, they don't all have the same requirements. They're all slightly different. And for some of our very high capacity, really engaged counterpart I think they probably have it together. And then there's going to be unserved areas that don't have that kind of local capacity to help apply for the grant and do this. So, I don't know if you can speak to any of that?

Deputy Director Ellis: Certainly and thank you. Thank you for the question. So, I would say that we were able to hit 56 out of the 58 counties, which I think is phenomenal. That said, we do understand that there is outstanding need. Currently, that is all the funding that is available at this time. However, one of the things that we have done with establishing our program is we've developed and we're continuing to stand up what is called a case worker unit within our division to really help provide information and resources and lend a hand to local communities and tribal governments as they're thinking about developing their applications. As part of this, they've developed a great resource specific to tribes that brings together every resource that we have at ours and our partners have at their fingertips on one page, right, so that folks can have that resource. One of the things that they're doing is they're meeting with each county and having an intake with each county in California to share information, assess their readiness, determine what are their needs, and we've tried to build that in knowing that we didn't have possibly enough funding. We are trying to do that through more one-on-one help with our case worker team.

Assemblymember Boerner: You said you hit 56 of the 58 counties, but the unserved population isn't evenly distributed within California. So when you look at the map of where the most need is, do we have communities that have not gotten LATA grants but have high need? You can go to the counties, but not all counties are equally engaged in the process. To me the measure of proportionality isn't 56 to 58 counties. That is great that you got 56 out of 58, that is wonderful. But the proportional need isn't distributed.

Deputy Director Ellis: Yes, agreed. The two counties that we are aware of that did not get our grants are San Francisco and Stanislaus. I can't say with the exact, you know, I can certainly come back with that information to this committee at the next presentation. But the intent of those grants, with the Federal funding account, have an emphasis on disadvantaged communities, the intent of the LATA grants is to help them build out networks that would reach those unserved communities specifically.

Assemblymember Boerner: If it's at a later time, or you can just send it over to my office, or maybe to this group. I don't know if we need to have it in a future meeting, but I think it's really critical. I always bring up the example of Oceanside – I shouldn't pick on Oceanside because I no longer represented Oceanside in it for 4 years, but Oceanside does have a disadvantaged community. In my old district, that's where the greatest need was, and where the greatest unserved population was. And they don't have the capacity. They don't have a community group that is reaching out to you guys and figuring this out. So, that that remains a concern. And especially how the programs all work together, especially considering that there will be some areas of the State, I think, if, and I don't want to speak for Assemblymember Wood, but as Assemblymember Wood was bringing up the example of his 20,000 that were all right on a freeway that aren't going to have you know their middle mile Phase 2, how are we going to help them with that? Because it is very complex, I think, for us. That we do this a lot as part of our jobs is even more complex when you don't have the kind of community activists and advocates from those communities, so I think that's something we need to still be watching.

Chair Bailey-Crimmins: Thank you, Assembly member Boerner. Other questions from our remote members? Okay, we're going to go ahead and move on to public comment. Miss Alvarado, will you please provide public comment and provide guidelines? I know we have people that are in the room and also online that would like to make comment.

Alicia Alvarado: Yes, thank you. 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 two minutes per person. The order of public comment will be in person comments, zoom and phone comments, and emailed comments submitted prior to the meeting. For in-person comments, please form a line at the podium. For zoom, please use the raise hand feature in the lower toolbar. For phone, please press Star 9 to raise your hand. Emailed comments received prior to the meeting will be read at the end. We will start with the first person in line at the podium.

Patrick Messac: Good morning. My name is Patrick Messac. I'm the director of Oakland Undivided, here to uplift the voices of historically red-line communities, predominantly black and brown folks, who have been bypassed by public and private investment for decades. It is in these very communities urban bipolar communities where nearly 3 quarters of disconnected Californians live, two years ago, when Oakland was named one of the three urban communities selected for the initial middle mile investment. I remember it like it was yesterday. It was one of the best days of my life. For weeks we had mobilized the entire community to participate in the process, and it had worked. I remember picking up the phone and the first call I made was to a community elder, a

member of the NAACP and mentor, to celebrate. In exuberance, I shared with him the news. And in a very even voice he responded to me, "What makes you think that this time will be different?" I wish the optimization map had been made public before the hearing. Hearing Assemblymember Wood say that communities are now relegated to the unfunded Phase 2, I can again hear the community elders voice in my ear, "What makes you think that this time will be different?" I have no issue with the State taking a focus on the maximum coverage of unserved households, I stand alongside my tribal brothers and sisters and rural communities that have been bypassed by public investment, and I understand that priority. But to use this for both middle mile and last mile, we have to assume that the State can accurately identify these locations. And I can tell you for a fact that these FFA maps, the interactive California broadband map is fiction. Please don't take my word for it. Please, google "interactive California broadband map FFA last mile map" and then just zoom into the wealthiest community in your area. What you will see are dense clusters of unserved locations. And you can demonstrably just go on comcast website and type in the address. You'll see that they have service. Then go over to the historically red-line urban communities and you'll see just a peppering, potentially, of unserved locations virtually ineligible for funding. It's true across California. Look at Presidio, look at Malibu, mansions that are unserved. Go to the Tenderloin, East Oakland, Boyle Heights. Time and again. So, I strongly recommend that the state does an analysis of the median income alongside Phase 1 middle mile segments and Phase 2 that's unfunded to see which communities are most impacted by this phased approach. I have a lot of trust in my partners at the State, and so I hope that we keep our promises to the families of East and West Oakland. So, assuming that that's met, I think the most important topic and pivot focus area should be on differential rates. We met with an ISP earlier this week, and they got some deliberate insight into the cost of the network. And they were surprised how expensive it was going to be to tap into the network and shared with us that as low revenue density community, if the cost of back hold is too high, they can't build out in our community. Market rate was named today. Market rate isn't working. Market rate hasn't worked for tens of thousands urban and unconnected. So, I implore that the cost matrix incentivizes build out of modern telecommunications infrastructure in these low revenue density communities. To close I want to leave you with the same question that the Elder left with me two years ago. "What makes you think that this time will be different?" Thank you.

Chair Bailey-Crimmins: Thank you. Is there any other public comment in the boardroom? I see none. I will go ahead and shift to my remote team. Are there hands raised? I'm going to leave it up to Miss Alvarado to call on them.

Alicia Alvarado: Yes. I will call on Dr. Larry Ozaren. Please unmute.

Dr. Larry Ozaren: Can you hear me now?

Alicia Alvarado: Yes.

Dr. Larry Ozaren: Thank you very much. Well, thank you for holding this public hearing. I'm Dr. Larry Ozaren with Clinical Informatics, a health technology consultancy. My focus is ensuring all Californians have equal access to health services, so I appreciate the comments and questions from Assemblymembers Boerner and Wood. My questions are in a similar vein. It sounds to me like the State is working effectively to make the most of these broadband funds, and I applaud the work to date. However, I have concerns about how we're entering broadband access for every Californian at an affordable price when this project is completed and service providers start selling access. In regard to pricing, there's a lot of room below market rate that would still be unaffordable, as the last commenter mentioned. I was wondering at what point will you get to a target? Is a target in user pricing \$10 a month that everyone can afford? Or is it some number higher than that? And in terms of universal access. We're currently at risk, again, as the previous speaker mentioned. Private companies will cherry pick only the most profitable broadband endpoints. To the points made earlier by Mr. Monroe, Assemblymember Boerner, and Secretary Tong, these efforts are all connected. The middle-mile process is the leverage the State has for the last mile process. I didn't hear any detail about how the middle mile last mile linkage Mr. Monroe mentioned would work. If we want to ensure statewide coverage, how are we ensuring during the contracting process for access to middle-mile infrastructure that all of the parties will ensure access to all homes and businesses in the state? Are you looking at assigning percentages of homes serve to amount of bandwidth access? Are you considering planning a lottery for assigning which last mile segments these entities must serve? As the previous speaker mentioned, if we don't include a requirement that these communities be served, there is a high probability that they won't be served. So, ultimately, we have to get to the point of: what is your plan to ensure that we take advantage of the middle mile process to eliminate the risk of dark last mile fiber and actually get Broadband for All? Thank you.

Alicia Alvarado: Thank you. We will now go to Geoff Belleau. Please unmute.

Geoff Belleau: Morning, can you hear me?

Alicia Alvarado: Yes.

Geoff Belleau: Great. Thank you. My name is Geoff Belleau. I'm with the Department of Education. Great to hear about the update. I know our schools K-12 are eagerly waiting for the middle mile to be built out so they can connect our last few schools that are still yet to have high speed. And, of course, as others mentioned, looking forward to the connection out into the community, so kids can do their learning as well as so families can do everything else, they need to do. So again, appreciate the update, and thank you for your time today.

Alicia Alvarado: Thank you. We will now go to Emily Cohen. Please unmute.

Emily Cohen: Can you hear me, okay?

Alicia Alvarado: Yes.

Emily Cohen: Great, thanks. Good afternoon. My name is Emily Cohen. I'm the Executive Vice President of United Contractors. We represent California's union signatory contractors across the State of all sizes and scopes. I just wanted to weigh in today on Mr. Monroe's presentation and express our serious concerns with the recent redistribution of State government contracts for work related to this historic investment in broadband infrastructure. Following what seemed to be a great partnership between the State and the industry to expeditiously install this much needed infrastructure, CDT has now changed course to a direction that really negatively impacts the union construction industry. And we are concerned that the changes being made by CDT to the procurement process result in thousands of union jobs being lost, months of continued project delivery delays and significant financial harm to our Union signatory California construction contractors who were awarded these projects, and in good faith have invested in new equipment materials and planning to ensure that they could perform the work to the State's expectations. Our construction firms were asked to submit a bids for this work through Caltrans. They were awarded this work through JOCs or CMGC, and to date no work has begun. In some cases the first work orders for JOCs are now delayed until September 30th, 6 months into their 12-month master service agreements. And while JOCs are not guaranteed work, these contractors have collectively spent millions of dollars and hundreds of hours preparing bids and hiring up in preparation to perform this work. And they've given up hundreds of millions of dollars in additional work opportunities in California in anticipation of performing this work. We are concerned that CDT is preparing to redirect significant portions of this work to out of State non-Union contractors, which would result in about 8 million union man hours being lost each year. Which are thousands of union jobs. No information has been shared with the contractors who are left sitting and waiting. It's unclear if CDT plans to hold any newly awarded

companies to the same public work standards, including prevailing wage. I know that Mr. Monroe said that there would be prevailing wage, but it's very unclear what that rate would be: if they would have apprenticeship standards and follow State and Federal DBE requirements, or if these companies plan to self-perform any of the work, and so on. In addition to the JOC awarded projects, approximately 2,300 miles have been awarded through CMGC contracts. And many of those projects are delayed as much as 6 months. So, we really believe that it's in the best interest of CDT and Caltrans, and the State of California to begin work on this as soon as possible. You have until the end of 2026, to accomplish the goal of delivering the project and fully utilizing these funds. It is our goal and the goal of our union partners to partner with the State, to deliver this important project to the people of California as effectively and efficiently as possible.

Alicia Alvarado: Thank you, your time has expired. Moving to Sarah McCormick. Please unmute.

Sarah McCormick: Hello. Thank you. And thank you to the chair and members of this advisory committee. I also wanted to thank all of the dedicated staff from the various entities that presented. I'm calling in from the city of Fort Bragg, on the Mendocino coast. We are considered a rural socioeconomic disadvantaged community and do have some underserved. But most of our challenge is reliability and those that aren't connected because of affordability issues. In response, we are really taking that challenge on with the LATA funds and are developing a municipal utility to deploy bond broadband to our community at an affordable rate. And I wasn't able to see on the map of the middle mile if our section of California State one is included in the first phase. But I just wanted to call in anyway, just to kind of put on the record that we are willing to partner to bring middle mile here. We have only a single Internet back hall that's provided by AT&T, and it is the only provider at this time. Some months ago we had road construction going on, and somebody had cut through that back hall connection, and our schools were out, our hospital was out, and it was just ridiculous at this point that we have to close down our schools because we don't have connectivity. So, I kind of wanted to do a shout out from the rural community, and also thank everybody, because this is crazy, complicated. And I know you're juggling a lot of different considerations. So, thank you.

Alicia Alvarado: That concludes our zoom and phone calls. Next, we'll move to the email to public comment. We received one prior to the meeting. It is from Ross Millerik. Question: when will fiber cable in Novato be installed and ready to use? This concludes our comments. We have additional comments on Zoom. This is Amy Hamlin. Please unmute.

Amy Hamblin: Can you hear me? This is Amy Hamblin, with Next Gen. Policy. I'm calling in to both applaud CDT and all the other State agencies and local and regional partners that were involved in the monumental effort to ensure that the public and especially underserved communities were part of the process of figuring out how to actually put together a state digital equity plan. Of what that looks like. Of what, in fact, digital equity is. So, I wanted to really tip our hat to everyone involved in that effort. And then also, I wanted to call attention to the fact that the current requirements currently disadvantaged big ISPs and process. I just wanted to bring some awareness to and express our concern about that and just really encourage the CPUC to do whatever they can to support smaller ISPs in that process. Thank you.

Alicia Alvarado: Thank you. We will now move to Ernie Pacheco. Please unmute.

Ernie Pacheco: Hello, Ernie Pacheco, Communication Workers in America. I'm the Broadband Lead for District 9. I'm actually in the field and tools today with really spotty service, so I've been hearing about every 5 words everyone's been saying today. I did want to speak up and first of all say, thank you to Mark and the Scott and the others working on this. It's amazing how far we've come. This is an immense project, and it's looking like we actually be able to pull this off. One of the statements, though, concerning labor goals I want to echo a previous commenter's from CWA's position. While there, yes, there is prevailing wage, we do not believe that as currently drafted there is equity for workers in the actual building of this network. There's a lot of different kinds of workers; there are people that will be digging ditches, laying conduit whatnot. But speaking solely for CWA, our members, who place the fiber rack, the fiber case, the SPI fiber, splice fiber, repair maintain and operate the networks, this is historically our jobs. We don't feel that the current language captures equity for the workers. But we are engaged with CDT in Caltrans and discussions on this. We look forward to continuing that conversation. I'll leave it there. Thank you.

Alicia Alvarado: Director, that concludes our comments.

Chair Bailey-Crimmins: Thank you very much. And just a comment on that we, at CDT and Caltrans, are looking forward to the labor discussions that we are going to have here in the next few weeks. So with that I would like to open it up to the members here, if there's any comments or closing statements? I don't see any, oh, Mr. Keever?

Chief Deputy Director Keever: I want to express my appreciation for everybody working on this. This is a lot of work; it's really hard work, but for a lot of benefit. Anyhow, thank you to everybody.

Chair Bailey-Crimmins: Thank you, Mr. Keever. All right. Is there any comment from any members remotely? All right. Well, thank you, everyone. This concludes our Middle-Mile Advisory Committee today. We heard a lot from our presenters and from the public, which we really appreciate. And our next meeting is Friday, October 20, 2023, from 10:00am to 11:30am. With that we will adjourn today's meeting. Thank you.