STATE OF VERMONT
PUBLIC UTILITY COMMISSION

<u>CASE NO. 23-1364-INV</u>

2023 INVESTIGATION INTO EV RATES

June 23, 2023
9:30 a.m.

Via videoconference

Workshop held before the Vermont Public Utility Commission, via GoToMeeting, on June 23, 2023, beginning at 9:30 a.m.

<u>P R E S E N T</u>

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Andrea Cohen, VEC
Bill Powell, WEC
Jim Cater, GF Power
Jeff Cram, GF Power

MR. HOWE: All right. We'll get going. Good morning, everyone. This is a workshop in Case No. 23-1364-INV, which is an investigation into rates related to electric vehicles. It was opened by the Vermont Public Utility Commission pursuant to Act 55 of 2021.

My name is Micah Howe. I'm a staff attorney at the commission. Also attending from the commission today is Commission Chair Roisman, Commissioner Cheney and Commissioner Allen as well as Andrea Poppiti, who is a utilities analyst at the commission.

This workshop is being conducted remotely, and we are using the web-based platform GoToMeeting. Before we get started with the workshop, I will go over some procedures for using the GoToMeeting platform. I encourage workshop participants to keep their cameras on when they are speaking. Each time you begin talking, please identify yourself by name for the court reporter. If you plan to only listen, it is helpful if you turn your camera off so the pictures of active participants are larger.

The commission staff will not mute anyone's microphone, whether a participant or member of the public, so please keep yourself on mute unless you are speaking to minimize background noises.

To indicate that you want to speak, please turn your camera on and unmute your microphone or raise your hand. Periodically I will ask are there anyone participating by phone, which I believe there is only one person, who wishes to speak. If your internet connection cuts out, please try to rejoin GoToMeeting or call into the workshop using the GoToMeeting telephone number that was provided in the workshop notice. If the audio or video from the workshop has cut out, let me know when you are able to rejoin, and I will summarize what happened.

If you are unable to call in or rejoin, please notify the clerk's office immediately by email or phone, and we will pause the workshop to try to resolve the issue. If anyone needs to present materials, we will make you the presenter in GoToMeeting so that you can share the slides on your screen by clicking the "Share Screen" icon.

With that covered, we will now begin the substantive portion of the workshop. I will start by taking attendance just so we have a record of everyone who is here. I will -- since there are quite a few folks on the line -- I will basically call on participants starting with a list of the entities that filed comments in this proceeding. And then I'll ask if there is anyone else that would like to state their name for the record.

So I will start, is there anyone here from the Department of Public Service?

MS. BRENNAN: Yes. My name is Erin Brennan. I'm special counsel with the Department of Public Service, and here with me today is Philip Picotte who is a utilities economic analyst with the Department.

MR. HOWE: All right. Welcome. Burlington Electric.

MS. WIDMAYER: Hello. Amber Widmayer for Burlington Electric Department.

MR. HOWE: Hello. Welcome. GF Power.

MR. CATER: Hi. My name is Jim Cater, and I'm calling in today on behalf of GF Power.

MR. HOWE: Can you spell your last name for me?

MR. CATER: It's C-A-T-E-R.

MR. HOWE: Okay. Perfect. Welcome. Green Mountain Power.

MS. SMITH: Hi. Tiana Smith from Green Mountain Power. And also with me today is Zach

Casey.

MR. HOWE: Welcome. All right. Hyde Park Electric.

MR. EVANS-MONGEON: Good morning. This is Brian Evans-Mongeon. I'm the acting general manager, and it is only I today.

MR. HOWE: Okay. Stowe Electric.

MR. LAZORCHAK: Good morning. Michael Lazorchak with Stowe Electric. Thank you.

MR. HOWE: Vermont Electric Co-op.

MS. MORRIS: Good morning. This is Lisa Morris, and Andrea Cohen is on as well for VEC.

MR. HOWE: Morning. And then the VPPSA utilities. So I'm not sure if -- I could run down the list or --

MS. BRAESE: Sarah Braese with VPPSA. And Connor Daley is also on with me, too.

MR. HOWE: And anyone from the individual utilities, or are you here on behalf of all of them?

MS. BRAESE: We are here on behalf of them.

MR. HOWE: Great. Washington Electric.

MR. POWELL: Bill Powell for Washington Co-op. Good morning.

MR. HOWE: And then ChargePoint. Is there anyone from ChargePoint on this morning?

MS. KENNEDY: Yes. Good morning. Isla Kennedy with ChargePoint.

MR. HOWE: Isla Kennedy. Welcome. Is there anyone on the call that I have not called on? That was my list of comments or commenters that filed comments in this proceeding.

All right. I think we have covered that. Moving on. Just sort of a highlight of or an outline of what we are going to talk about today. I planned to initially talk just generally about Act 55 and the commission's order opening this investigation and then move into questions that I had for the individual utilities. I've got them organized by -- in alphabetical order, so I was going to proceed in that fashion. But we can see how the workshop progresses and other questions that come up and where it takes us. So I'm not tied to that, but that's -- will at least be my starting point and finish up with the discussion of some of the additional workshop topics that were raised in the comments that were filed.

I think -- I don't plan to get into those substantively, but perhaps figure out some -- a plan for discussing those more in depth going forward in this investigation.

So for the first part, the commission -- the commission's order opening this investigation gave a little overview and interpretation of the requirements of Act 55 and its take on it. And in particular, it explained that the commission understands Act 55 to require each distribution utility to offer multiple EV rates, including rates for public and private EVSE, as well as for the relevant rate classes, market segments and customer segments within the public and private EVSE categories, as applicable.

That's based on the exemption provided in Act 55 and section 33 as well as the overarching requirement that the EV rates have to be available for public and private EVSE. And I just wanted to get a sense from any utilities that care to comment on that whether that is also their understanding, or, in particular, whether they don't understand Act 55 in that same way.

All right. Seeing no green microphones, I'm going to assume that anyone -- everyone is reading this the same way. I don't know -- yes.

MS. COHEN: Sorry I'm late.

MR. HOWE: Ms. Cohen. Yes.

MS. COHEN: Is it appropriate for me to comment on that right now?

MR. HOWE: Yes. Absolutely. Love to hear from you.

MS. COHEN: Respectfully I'm not sure that VEC actually reads the statute the same way. So whether -- I just wanted to get that on the record. And something that we can, you know, talk about as we proceed.

Our understanding was that the statute didn't necessarily require multiple rates, and it definitely allowed for that, you know, whole house time-of-use rate which meant you didn't have to do multiple rates. And certainly not, you know, necessarily different rates for public or private, you know, provided they all had access to, you know, that opportunity. And so that's just a different framework of how we are approaching things. So when it's appropriate to dive into that more, we can.

MR. HOWE: Okay. And I will be walking through each utility so we can discuss that more in depth in the context of the rates you've described. And the goal of this discussion is not to hash out anything in the context of -- or that is definitive about Act 55. It's just our -- we are trying to develop an understanding of what to expect from the utilities when the filings come and make sure everyone is more or less on the same page as to what's required and what's expected.

So we don't know what the rate filings that will come, if any, or if they are claiming -- or if you plan to claim an exemption, but we would like to have a better picture of that just, you know, even just for work load purposes what's coming in.

Ms. Smith.

MS. SMITH: I'll just add that GMP is in agreement with VEC's interpretation as well. So just for the record, respectfully. Thanks.

MR. HOWE: Sure. All right. Before we move on to the individual utility discussions, did any of the commissioners or staff have anything they would like to add on this?

(No response)

MR. HOWE: All right. Hearing nothing, I will move on to the individual utilities. So the first one, and again, I just have these in alphabetical order. I have Burlington Electric next. And as I explained, I'll just call these in alphabetical order. I think this discussion is really for the benefit of the commission's understanding of your rates so that when we do write the report at the end of the year for the legislature, we can have a clearer understanding of where individual utilities are, but I think also sharing information about your rates may help the other utilities in developing their own and have some ideas.

COMMISSIONER ALLEN: Micah, can I just add something? This is really a question to you. But I feel like Act 55 is not necessarily kind of constraining in any way. That is, we can essentially look at the goals and ambitions of Act 55 and essentially tailor the requirements to things that frankly make sense broadly. Does that sound correct? I just don't want people to interpret Act 55 as somehow constraining or -- the abilities on this topic.

MR. HOWE: On -- I missed the last part of what you said. On what?

COMMISSIONER ALLEN: On the topic of electric vehicle rates. You know, establishing, you know, a just and reasonable rates that apply to electric vehicles that, you know, may make sense given the individual circumstances of each utility.

MR. HOWE: Right. Yes. Of course.

CHAIR ROISMAN: And I just want to underscore what Commissioner Allen has said. The commission obviously has the authority to recommend and ultimately implement rates that we think are necessary to achieve the goals of the statute. And the process starts obviously with the utilities giving us input as to what they are proposing to do and how they propose to do it. But at the end of the day, the commission could decide that something more is needed than what is proposed in order to meet the goals of the statute, particularly encourage electric vehicle use, and make it more attractive than alternative things.

So this workshop doesn't have as its goal that purpose. But it is important to recognize that our generic authority, independent of Act 55, extends as Commissioner Allen has laid out.

MR. HOWE: Great. Thank you, Chairman Roisman. All right. I will go back to BED unless someone has something else to add. Burlington Electric.

MS. WIDMAYER: Hello.

MR. HOWE: All right. I guess the

first question I had for Burlington Electric was whether or not Burlington Electric plans to file any more -- any new tariffs under Act 55.

MS. WIDMAYER: Well for starters, just to clarify, we do fall under the exemption in section D, because we had EV rates in effect back in 2018. We are continuing to work on rates that are approved. For instance, under our EV rate, we expanded that to include our small general and large general rate classes. And most of our customers are currently on the fixed timing so that they can't charge between -- they can only charge between 10 p.m. and 12 noon.

But we are working with a few customers to roll out the -- more people to be on the flexible load and the flexible real time, so we are experimenting with a few customers to make sure we have all the kinks out before we actively recruit more people onto those other options. But those are already approved in the tariff.

MR. HOWE: Okay. Great. In terms of the exemption -- oh, yes.

COMMISSIONER ALLEN: Another question for you. When is it appropriate to essentially, you know, be probing deeper into the experience of the utilities? Would that be kind of covered later in the agenda?

MR. HOWE: Is that a question for me?

COMMISSIONER ALLEN: Yes.

MR. HOWE: I think we would do that now. So my plan was to walk through each utility, so while we have them, I would probe deeper as we go.

Do you have a question now, Commissioner Allen?

COMMISSIONER ALLEN: Well it's a broad question for Ms. Widmayer. It really relates to essentially the takeup of the rates. I mean that is, is there a way of essentially estimating or measuring the adoption of the rates by BED customers and, you know, essentially the responsiveness of customers who, through those rates, get some sense of, you know, impact and potentially a benefit cost as well? Is there kind of an analytic process that is associated with the introduction of these rates that can be shared with the commission?

MS. WIDMAYER: I'm happy to provide any information you would like. I don't know that I have those details on hand right now. But I can certainly get those for you. I do know that we do not have participation from all EV drivers in the BED territory. And a number of reasons for that are the cost of installing a charger. A number of customers feel like level 1 charging is sufficient so they haven't opted to install the level 2 charger in order to participate.

We have also heard some people don't want to be limited by the hours, so that will be interesting to see if more people join once the flexible load options are more readily available. But yeah, those are ongoing questions we are working on answering.

COMMISSIONER ALLEN: Just to follow up on that. As I think about this workshop and the opportunities that we have, I mean I think, you know, as an example Green Mountain Power and Burlington Electric were essentially trailblazers in essentially the introduction offering of rates. And they may provide experience that may actually help inform, you know, steps taken by other utilities.

So having, you know, some experience that we can kind of engage around and dig into, understand what really is working and what really is not working, and as you allude to what are the reasons that things are and are not essentially taking place so that we can kind of share the experience, and that experience might help inform the judgment of other utilities and the commission as we move forward.

MS. WIDMAYER: I would be happy to provide follow-up information.

CHAIR ROISMAN: And I also have a question for Ms. Widmayer. We are blessed in this state with so many creative utilities and certainly BED is one of them. I wonder what thoughts you have had or ideas you have about having different rates for the customer who has the -- their own charging at home primarily and those sites where there are commercial chargers available; the malls and places like that.

Have you had -- have you given any thought to -- and how do you deal with differences that might arise in rates for those different kinds of charging places?

MS. WIDMAYER: Well so far we do have two different rates. We have a public charging rate, which is just on all the time, so there is no time-of-use component to it. That's about 18 cents -- well 19 cents -- will be 20 cents in the rate case.

And then that's differentiated from our EV rate which is for the residential small general and large general which has those time components to incentivize charging off-peak.

CHAIR ROISMAN: All right. And so with regard to the commercial, the non-home based, if it's -- let's say it's a large mall and they have a big electric bill, obviously for everything that goes on at the mall. Are the charging systems just rolled into that rate or are they separated? And do you have the technology, if you wanted to, to separate the rate that was paid for the charger as opposed to then this is a wholesale rate, I assume, unless BED owns the charger. The rate for the charger versus all the other electricity used in the mall.

MS. WIDMAYER: I'm not sure I'll be able to fully answer your question, but under the EV rate for the large general rate class there is a demand credit included in the rate. I'll probably need to go back and revisit how the rate was written to fully answer your question. But I know that we have considered those questions. So for --

COMMISSIONER ALLEN: If I could, Ms. Widmayer, if I could, you said that's a demand credit.

Do you mean -- is it energy based like the rates that are applied to the residential class or is it actually a demand -- a discount that is offered on essentially the demand charge component of rate?

MS. WIDMAYER: The way it's written is it's a demand credit, $21.53 per kilowatt calculated based on the difference between the billing demand and the non-EV charging billing demand.

COMMISSIONER ALLEN: Okay.

CHAIR ROISMAN: Okay. Just I'm not that -- I don't live in the Burlington area so I'm not familiar with it. But are the chargers that are not home based in the Burlington area owned by independent companies? Or does BED own all of those chargers also?

MS. WIDMAYER: For now, all of the chargers that are on our public EVSE rate are owned by BED. So if there are non-home-based commercial chargers, they would have to fall under our EV rate, they would have to be compatible with our rate. And they would have to fall into those small general or large general categories.

CHAIR ROISMAN: Okay. So I'm sorry to dig into this so much, but this is so new that it's important, as I think Commissioner Allen said, that everybody know what everybody's doing.

So you own the chargers, the non-home-based chargers. You -- BED owns them; is that correct?

MS. WIDMAYER: We own a number of them downtown. And I'm fully -- full disclosure, I'm probably not the best person -- I'm not the one that tinkers with the rates and has the vision for proposing them. So I'm happy to follow up, get more information. So there could be commercial chargers that are not BED owned if they are able to fall under our small general or large general rate. But I can't give you specifics right now.

CHAIR ROISMAN: Okay. So with regard to the ones that you own, when you talk about the rate, that's the rate that someone who -- if I drive my electric vehicle into one of those locations and I plug it in, the rate I'm going to pay probably on my credit card is going to be the rate that BED has set for its own charger.

MS. WIDMAYER: Correct.

CHAIR ROISMAN: At that particular location. There is no middleman involved or anything else. It's just a direct; I'm paying the utility and you're selling me the electricity.

MS. WIDMAYER: That's correct.

CHAIR ROISMAN: Right. And if I'm in a commercial setting, and it's not one that's owned by BED, the rate that I'm going to pay is the general rate that that commercial establishment is paying for its electricity. Is that what you're saying? So if they are paying 15 cents a kilowatthour, that's what I'll pay. And I'll pay it to them or I pay it to BED?

MS. WIDMAYER: Well unless they are on our EV rate, I believe they would be able to charge whatever they want as a commercial charger.

CHAIR ROISMAN: Okay. All right. So they are buying electricity from you at whatever rate they have tapped into, and they can then charge me more or less than that. And that's completely up to them. Like they might say if you buy a hundred dollars worth of stuff in our mall, we will give you a better rate when you go to check out than if you just show up, park here for a little bit, and leave. But that's all in their control, not in BED's control. Correct?

MS. WIDMAYER: Correct. And others can feel free to jump in and correct me if I've misquoted anything.

CHAIR ROISMAN: All right. Good.

Thank you. I appreciate it.

MS. WIDMAYER: Sure.

COMMISSIONER CHENEY: I'm curious to see -- I know that Mr. Cram had his mic on. Was that something that you wanted to speak about?

MR. CRAM: No, I apologize. I just joined late and was trying to get myself organized here. So thank you.

COMMISSIONER CHENEY: Understood.

MR. HOWE: All right. Do any of the commissioners have other questions for BED that -- I think I had my initial one, and then people probably covered others that I had already. So I don't have any more questions for BED.

COMMISSIONER ALLEN: No. Not right now. I think I want Ms. Widmayer to have essentially the benefit of knowing -- kind of having specific questions that we would ask of her. So I'm imagining that we would follow up and offer specific questions rather than, you know, just throw a wide or a broad net out there for her to kind of provide more of an analytic frame on their experience.

MR. HOWE: Okay. Great. Thank you, Ms. Widmayer. I think that's all the questions we have right now. But we will -- may circle back as we go.

MS. WIDMAYER: Okay. Thanks.

MR. HOWE: The next utility on the list was GF Power. I just had one question because you're in sort of a unique situation in this under Act 55. Your comments stated that the existing tariff meets all the Act 55, or you believe that the existing tariff meets the Act 55 requirements. Just in terms of sort of filing and meeting the obligation under Act 55, do you have thoughts at this point on whether you'll file some kind of request or petition? How will the commission deal with that, or how will that be presented to the commission?

MR. CATER: Yeah. You know, this is Jim Cater again on behalf of GF Power. I don't think that GF Power has a firm plan in mind for that at this point in time.

MR. HOWE: Okay. So maybe some guidance would be useful in the future on how to address that.

MR. CATER: Yes.

MR. HOWE: All right. Do any of the commissioners have any questions or staff have questions for GF Power before we move on?

(No response)

MR. HOWE: All right. Seeing no green light, actually I do you have one more question. Does GF Power have electric vehicle charging equipment at its facility?

MR. CATER: No. That wouldn't be -- Global Foundries -- I actually don't know whether they have charging facilities on their campus or not.

MR. CRAM: So this is Jeff Cram. And we do not have chargers at this point. We are kind of mapping out what our needs are at the moment. We will likely have them installed next year.

MR. HOWE: Okay. Great. Thank you.

COMMISSIONER ALLEN: If I could, Micah, just to follow up on that. Is the expectation, Mr. Cram, I'm sorry. Can you hear me?

MR. CRAM: Yeah, I can hear you.

COMMISSIONER ALLEN: Is the expectation that you would essentially have chargers there for kind of employees of GF or -- and if so, is the expectation that you would essentially just offer it as a free service or that you might be charging for that service?

MR. CRAM: Yeah. So we are close to campus, so it would be for employees, visitors, contractors, anybody that's there. We haven't made the determination on how to do that and probably could use some guidance on that, on whether we could recoup some of the costs of the electricity, and -- in some type of program or whether we would do it as a free service. We are kind of evaluating both.

COMMISSIONER ALLEN: Okay. Thank you.

CHAIR ROISMAN: I had one question I should have asked of Ms. Widmayer but I'm really asking of it everyone. And my focus is primarily on these commercial chargers, that is not the ones that people have at home, but all the others. If you have a special rate, or are talking about the commercial charger, it would be helpful to let us know if the chargers we are talking about are level 2 or level 3 chargers.

So now that GF Power is there, the chargers that you're putting on campus, are you intending to use level 2 or the fast charger level 3 for your campus ones?

MR. CRAM: Yeah. So what I would expect the GF is to go with a level 2. The majority of our employees are 8 to 12-hour shift employees, and we think that would likely fit in the best for the needs of what we would be doing.

CHAIR ROISMAN: All right. And my

recollection is, happily, you employ a great many Vermonters. We expect sometime in the next, say five years, that an increasing number of people will be driving electric vehicles. Are you thinking that you'll install now an adequate number of chargers to allow all the people with electric vehicles who want to charge while they are at work to charge, or are you thinking to put in just enough for now and then build out as the demand increases? And if neither of those, will you be planning to implement some program by which people will be able to use the charger but only for a finite period of time and then need to remove their car from that spot so that somebody else can charge at that spot?

What have you thought about or what are you planning to do about that?

MR. CRAM: Sure. So our initial thought is that we are going to build -- put the infrastructure in place for the future for some period of time. It's not just to address today's need. But if we have to run power through our buildings and our parking lots, we don't want to repeatedly go and put that infrastructure in place. So we would build out at least the infrastructure, maybe not all the charging stations, but the infrastructure to support those for some period of time.

It is a -- we would put in some type of ability for people to move vehicles during the course of the shift, but we do need to be conscious of, you know, the needs of the manufacturing. So we do want to put some structure around how we do that.

CHAIR ROISMAN: Okay. Thank you. That's very helpful. And as you know, that's a difficult issue. I mean not just for a big manufacturer like GF Power but a mall. You know, some people come and spend their day at the mall, and some people come and do a 20-minute shop. And how they deal with that in terms of the charger use is a problem that we are looking for creative solutions to. Thank you.

MR. CRAM: Thanks.

MR. HOWE: All right. Are there any other questions for GF Power before we move on?

(No response)

MR. HOWE: All right. Thank you, GF Power. The next in order is Green Mountain Power.

Good morning.

MS. SMITH: Good morning. Zach Casey is here.

MR. CASEY: Hello.

MR. HOWE: I did have just a general question initially. Your comments mentioned the flexible load management pilot and the next phase of it which was FLM 3.0 that you call it. I wonder -- I didn't -- you give a brief description of it, but I wonder if you could tell us a little bit more about what that pilot is and its targets and any sense of how it is working for you.

MS. SMITH: Go ahead.

MR. CASEY: Yes. So this is Zach Casey. We sunset our flexible load management pilot 2.0 earlier -- at the end of December of '22. We still have participants in that that we will continue to serve. What we are thinking we are now going to the next phase of FLM 3.0. So right now we are exploring what that looks like. And we are hopeful to have some sort of pilot out the door by October of '23. This year. And in that is basically a demand response program. And it's garnered towards typically the larger commercial industrial customers that are able to flex their load when we have an event for a peak demand response throughout the state.

We right now have a couple different

programs that are kind of like that, but it's more of -- those programs are more of a, you know, as you know, a curtailable load rider is a big hammer and you have to, you know, reduce by 20 percent of your load. Flexible load management is -- we are seeing a couple ideas out there. Seeing what load you can shed during these peak events. And thinking that some of the larger charging stations might be able to benefit from this -- in this rate when they have, you know, maybe some fleets that have that large load at the end of it or we are not necessarily looking at it as public facing because that would be a little challenging for the larger DCFCs across the state, but more looking at, like, fleets or large corporations to participate in that separately.

And, you know, we haven't really hammered out all the details yet, so we are still exploring a couple different options, but one of them is again, event based, maybe sharing a load profile with the customer at the beginning of the week and saying if you can match this load profile that we are looking at, here's what we are seeing in Vermont, in New England, and if you can match this load profile that we are asking you to, to reduce your demand by so many kilowatts, this is the compensation of the rate that we have.

And then maybe looking at it as, you know, if you participate so many times a year during those peak events, a couple buckets. If you're going to be in once a month, heck, I'm in once a week. Or maybe it's only a couple times a year, those might vary in that compensation.

So we are throwing stuff at the wall for that FLM. We haven't gotten there. We are hopeful somewhere in October that we will be able to roll a pilot out.

COMMISSIONER ALLEN: Micah, I have a couple questions if now is the appropriate time.

MR. HOWE: Yes, of course.

COMMISSIONER ALLEN: So you said that your flexible load management 2.0 has essentially sunset. And you're grandfathering in essentially the customers that subscribe to that. Was that the EV flexible load management rate? Was that just another general rate? What rate is it that we are referring to on the tariffs?

MR. CASEY: On our responses to this?

COMMISSIONER ALLEN: Well I'm just -- I mean I'm familiar with Green Mountain Power's kind of rate schedule.

MR. CASEY: Time-of-use rate. Yeah. So the flexible load management in 2.0. You are correct. We took participants until about December 15 of '22. We have I think close to 60 is what we have wanted in the pilot. We have 50 some odd enrolled. And we are -- in those enrollments we have probably half of those participating in flexible load management 2.0. So we are now getting folks on to the actual rate in participating. And that flexible load management 2.0 is -- part of the pilot is we will service those customers for three years once they are enrolled. And we will do that and continue that for another 18 months or so.

COMMISSIONER ALLEN: Customers that are eligible for that include residential, commercial industrial or just the larger?

MR. CASEY: Larger. Larger commercial industrial. So they have to be on a rate 63 or 65 for GMP rate.

COMMISSIONER ALLEN: Okay.

MS. SMITH: I'll just add, we do have two residential EV rates, 72 and 74, for residential EV owners. And then rate 6 which does not include a demand component. That is for fast chargers. So commercial customers would be on that rate 6. So those are tariffs that currently exist.

COMMISSIONER ALLEN: And the flexible load 3.0, is that a rate that applies just to electric vehicles or electric vehicles and other potentially flexible loads?

MR. CASEY: We are trying to develop it. So it's not just for, you know, that is kind of a -- a nuance, I guess. It's not designed specifically for electric vehicles. It's for loads that can be flexed. You know, we are -- that one specifically we are hoping that we can use customers building management systems specifically to automate the process. So we send a signal and they hit their building management system, and they are either turning their heating or cooling up or down depending on what we are asking for or any other measures in technology that they can do. And also so we see it being advantageous for the EV side of things. So we think that we have some flexibility in the EV larger, you know, technology coming out with different chargers that can play in that program.

COMMISSIONER ALLEN: Okay. So if I can just kind of reframe that a little bit. Rate 63 and 65, as I recall, is a time-of-use rate.

MR. CASEY: Correct.

COMMISSIONER ALLEN: And is a demand charge rate. And --

MR. CASEY: Correct.

COMMISSIONER ALLEN: What you're essentially offering is they essentially would have a tariff rider that would, in essence, kind of modify their charging, probably offering in exchange for a discount, some measure of essentially just load management by Green Mountain Power. And --

MR. CASEY: Right.

COMMISSIONER ALLEN: So this might apply as a rider. It might apply as a discount on the demand component or on the time-of-use component. It sounds like there just are some to-be-determined elements, but they are yielding essentially some measure of control. And presumably there would be guardrails around the flexibility that you could exercise in controlling their loads.

MR. CASEY: That's correct. That's one way was we looked at it as a rider to the rate 63 and 65 as one way going down the path. So we are still analyzing what that looks like as far as the flexible, as far as a conversation, as far as revenue.

And then we also did look at it as a

rate on its own. So not, you know, the customer would not be on rate 63 and 65. They would be on whatever the flexible load rate is called. And so we are investigating, like, that path. How does that benefit the customer, the -- us as a utility. And how can we have a, you know, almost a flat-based rate that customers know if they participate in maybe different ways, you know, it's not unlike a time-of-use rate. And how would that work.

So those are kind of the two ways we are looking at that flexible load management currently. And in pulling out the analysis to see what has the greatest value, how we are capturing our revenue. And how many -- really how many participants would go on either one of those paths.

COMMISSIONER ALLEN: One of the things that I think the Commission, or at least I'm interested in, is essentially gaining a sense of the penetration or participation by eligible customers. There is kind of an increasing conversation across the U.S. or around kind of opt in and opt out as a mechanism of potentially kind of facilitating greater participation.

Do you have any expectations or what would you consider to be success if you could offer this rate and, you know, and we are interested in gauging the performance of the program?

MR. CASEY: I think success, in my opinion, would be pretty simply we have great participation. We see the benefits for the customer. It's not a complete heavy lift for both parties, the utility and the customer alone. So there is not a lot of tracking of spreadsheets. It's a bit automated. And then we get to a point where we all feel comfortable that, yes, this adds value for everyone and it becomes a tariff. Here we are. We are calling it a pilot.

Our goal is to have our next version -- is to get it so close to the pin that we can push it to a tariff. We don't want to have flexible load management 6.0 pilot. So that's our goal. And you're right. We saw a tremendous uptick in the enrollment just this last year for flexible load management as we kind of canvassed the state and had our customers understand how they can benefit for it. And the opt out and opt in, or understanding the events that we could play with, is a big -- I guess -- carrot for it. Like in some of our larger customers, I'm thinking the ski areas, you know, with the climate these days they want to make snow. And we just can't hit them with a curtailable because it coincides with a cold snap.

So we are trying to design something where they could participate as much as they can and still get a little benefit, still give us benefit for reducing their load at those peak times.

MS. SMITH: Yeah. I would just say also, I would add pertaining specifically to the electric vehicle aspect of flexible load management, success would really be for us to be able to see customers at sort of a critical mass transitioning, you know, large parts of their fleet. Right now I think people think about -- or customers think about it in terms of providing charging for maybe employees that already have EVs or things like that. But we see this as a potential future resource in the same way that we do for our residential customers. This is a load that can be flexed, and flexed, I think, pretty successfully depending on what the fleet is actually intended for. And so we see that electric vehicle aspect of being a flexible load as a huge benefit --

MR. CASEY: Right.

MS. SMITH: -- within this rate.

MR. CASEY: Can I add as well, these

are for larger commercial industrial customers that we are kind of garnering the flexible load management to.

We are exploring, we don't have anything on -- in a large way, but we are exploring what those fleets' rates could look like as well.

MS. SMITH: Yeah, for entire fleets.

MR. CASEY: Yeah. For the smaller customer class, like currently that would fall into the general service rate 6 here. How can we get those customers involved so they have either a flexible rate or a time-of-use rate or something that mirrors that for flexible load management.

COMMISSIONER ALLEN: Thank you very much. I just have one more question, but it may be a question that I can just kind of put out as a request for information. But can you share with me the level of participation that your experience for the rate 72, 74 rates that are being offered to the residential sector, do you have any way of gauging, you know, essentially the participation in what is, in essence, I believe, an opt-in framework?

But, you know, reference has been made by others at Green Mountain Power that suggest you're achieving levels of participation that are kind of off the scale relative to opt-in frameworks. And I would like to just have that number on the record if I could.

MS. SMITH: Yeah. It's 2,600 is what we currently enrolled between the two rates. The split there is roughly sort of 65/35 with more people opting towards the one where we control rather than they control. And we, you know, just for a little more context in the program, we give those chargers to our customers which allows them to enroll in that demand control piece of that. That gets them signed up on the rate 72 or 74. The equivalent is around a dollar a gallon. So tremendous motivator there for customers to get signed up on those rates.

But yeah, I mean considering there is close to 9,000, I think, electric vehicles in the entire state, we feel, you know, close to 3,000 we are happy with that number of participants.

COMMISSIONER ALLEN: Since you have been offering that, do you have any way of kind of gauging what, you know, what percent of customers with electric vehicles in the service territory -- it's really kind of an opt-in condition. I mean it's you have free chargers that you're offering. And essentially, if I'm understanding you, they need to participate in one of these two rates essentially to receive the discounted charger.

MS. SMITH: That's right. I would say we offer a lot of flexibility though within that. So customers have the ability to opt out. You know, they know when those control periods are happening. They have the ability to say, no, I really need to charge my vehicle right now and pay the peak pricing during that time. I would say we have --

MR. CASEY: The percentage of folks --

MR. SMITH: Yeah.

MR. CASEY: -- actually participating during events is in the high 90s.

MS. SMITH: Yeah. Absolutely. In terms of how many of our customers that have EVs and, you know, are participating versus have EVs and are not participating, you know, we are roughly three quarters of the state. I would say we -- you could probably estimate what those numbers are based on the total number of registered EVs, but we don't have a clear sense as to how many we have that aren't participating in the rates at this point.

COMMISSIONER ALLEN: Okay. Thank you. That's very helpful.

MS. SMITH: Yup.

CHAIR ROISMAN: Okay. I want to start with a full disclosure. I'm a GMP customer. I have a charger that you provided. I chose the rate 74. I love it. So you've got a happy customer here.

So my questions are really not focused so much on the home charger approach but, again, on the commercial. And it seems to me there is sort of two kind of commercial. There is the commercial in which the commercial establishment itself is using electricity, and the flexible load management that you're talking about is geared towards that group. You, you know, manufacturer X, you can decide whether you want to use more electricity or less electricity, and we are going to give you some rate choices that may help you make that decision.

I want to talk about the other kind.

MS. SMITH: Yup.

CHAIR ROISMAN: The kind that has a lot of customers who are going to use electric vehicle charging but who themselves don't control how much that charging is. So we will just assume a big mall.

MS. SMITH: Yup.

CHAIR ROISMAN: And you've got lots of customers. The customers are going to come in. The chargers are there. Either the customer chargers are available directly from the mall or they contract with someone like ChargePoint or Electrify America, and those chargers are put in.

Have you given thought to any kind of rate that you could implement where you're sort of only dealing with the middleman? You're selling electricity wholesale. And somebody else is, in turn, going to sell it retail.

MS. SMITH: Yeah.

CHAIR ROISMAN: Your rate is going to only apply to the wholesale rate. The guy that buys it from you can choose to sell it at whatever rate they want to sell it. Some companies might say we get so much benefit from having the electric vehicle's owner here at our store, our shop, whatever, that we are going to make it available to them for, you know, 6 cents a kilowatthour which is way below, you know, the commercial rate. What kind of rates are you all looking at? Or have you considered for how to deal with that kind of a situation?

MS. SMITH: What I would say is that our rate 6 gets at exactly what you're talking about. So that allows for a mall, a commercial customer, to be on that rate. They are paying only a kilowatthour charge. They are not paying a demand charge and are able to then decide, you know, if they are the sort of owners and operators of their fast charging stations. So that's a big -- you know, that's a customer that's over 200 KW that's able to get that rate, and not be penalized for the demand.

CHAIR ROISMAN: Okay. So there is nothing built into that rate to encourage or discourage charging at any particular time?

MS. SMITH: Correct.

CHAIR ROISMAN: There is no time-of-use component in that at all.

MS. SMITH: Correct.

CHAIR ROISMAN: So it's just picking up your large user and that would apply -- the rate 6 will apply equally to the electricity that the chargers take and the electricity that the lighting takes.

MS. SMITH: That's right.

CHAIR ROISMAN: Correct. Okay.

MS. SMITH: That's correct. And so to get to, you know, that other -- that controllable load that's what we are trying to do with the flexible load management with respect to EVs. So we have a rate in place currently. The EV 6 that -- or sorry -- not EV 6. That's an electric vehicle. Rate 6 for EVs. That allows for that currently.

CHAIR ROISMAN: All right. And taking it away now from the mall, okay, which is a big electric user to start with. Let's say it's the convenience store that now has six gas pumps. And they decide we are going to put in six electric vehicle pumps instead or in addition. And either they are going to own them or they are going to go to ChargePoint or somebody like that and get them installed.

It doesn't sound like they are going to meet your rate 6 minimum. Are you giving any thought to whether you would give a different rate for the electric vehicle component of that customer?

MR. CASEY: So I guess --

CHAIR ROISMAN: Am I wrong about how much electricity a convenience store uses?

MR. CASEY: One thing that we do suggest when someone goes to a public-facing location like that at a convenience store, a mall, that they put this on a separate service. So they are not coming off the main panel of the mall or the current service point of the convenience store. That they are setting up something that is dedicated to the EV infrastructure there so they can be, A; the way we are doing it now is on rate 6. And, you know, as Tiana suggested, they would never see a demand charge. They get the typical KWH and the customer charges that go along with it.

But to answer your question, in the back of our brains, yes, we are always -- we are trying to think about what is the next step for those type of customers. You know, what is -- I think our first thing that we like more than the public facing is, I think, for us is fleets across the state. How can we flex the fleets? I think that's our next bucket that we are going to work on.

And then after that, what is -- what does it look like on those convenience stores? Right now we think it works well for that rate 6 for those customers who have dedicated service, have a rate 6, they won't see a demand charge. That's how we encourage the EVSE's to be placed across the state in our service territory right now.

But going forward I think we do need to explore what those rates look like for those specific type of customers.

CHAIR ROISMAN: Okay. That's very helpful. For me at least the big take away from what you said was if you're going to put in a bank of chargers, meter them separately.

MR. CASEY: Yeah.

CHAIR ROISMAN: So that there is the opportunity to manipulate that rate to either encourage the electric vehicle to be used or to do better load management. Because down the line, not today, but sometime, we are going to have mostly electric vehicles.

MR. CASEY: Right.

CHAIR ROISMAN: And that's a big demand. I mean I can see it on my own personal electric bill. The total amount of my electric bill that's now dedicated to my electric vehicle which is -- I drive a lot -- is significant. And so separating that meter, that's a good point. Thank you.

MR. CASEY: Yeah. I'm not saying no separating. We have been coaching our customers that are putting in chargers, and their first maybe option might be to come off that main panel. We suggest, okay, you are currently on a small general service rate 6 for your small convenience store. If you start adding all this load up here, there is a possibility that you could get over that 200 KW or the 7,600 KWH for four months that is in our tariff to bump you into that larger commercial class, or then you're now paying that demand charge.

CHAIR ROISMAN: Okay.

MR. CASEY: So keeping that off that panel is, you know, and we don't have a good mechanism to parse out currently what that EV is only on that load. So having them separate is a good means to let them flex it, like you said, and be sure that their other service is not going to go over to that larger rate, if it's unnecessary.

CHAIR ROISMAN: Thank you. Very helpful.

MR. CASEY: Yeah.

COMMISSIONER ALLEN: If I could -- just to follow up -- I just want to be clear. With respect to the rate 6, as Zach has alluded to, there is, you know, there is a test that triggers you to flip over to 63, 65. And I interpreted Zach's point to be, gee, if you kind of divide the loads between EVs and the main circuit panel, you can, you know, reduce the risk that you kind of trip over.

But I guess my question is what if the EV loads are sort of large on rate 6. If they have that 7,600 kilowatthour threshold or that 200 KW threshold just for the EV portion, does that trigger a rate 63, 65 currently, or is that -- or do you because they are EV loads, make an exception so the demand charge does not apply?

MR. CASEY: That is correct. The latter. We categorize specifically it's an EV facility, EVSE facility. And therefore that service point is exempt from going over to the larger rate. And it's just for only EVSE infrastructure. They would not get -- so even if they did get, you know, the 7,600 for four months threshold or above 200 kilowatts, they do not get bumped up to the larger commercial class. Currently they are exempt.

COMMISSIONER ALLEN: Okay. But these are not controlled loads. These are rather just kind of EV --

MR. CASEY: Correct.

COMMISSIONER ALLEN: -- loads. And I assume that you've done and are doing analysis that help ensure that essentially the, you know, the rates that are set are covering at least the incremental costs going forward.

MR. CASEY: That's correct.

MS. SMITH: Yup.

COMMISSIONER ALLEN: Thank you.

MR. CASEY: Thank you.

CHAIR ROISMAN: I had just one last question. I know early on Commissioner Allen -- I think when he was talking to BED, he was talking about us learning from what experiences you have in the commercial sector particularly where you have the EV charger as part of the demand. What are you seeing or are you seeing the patterns of when EVs are being charged in a commercial setting? Are you seeing them being charged during peak times which obviously would be disadvantageous, but the person who is charging their car may not say, well, I'll just charge my car when I'm not here. They are there. They want to charge it like they would gas up their car.

What patterns, if any, are you seeing or are you not looking at patterns at this point?

MS. SMITH: I would say at this point we are still seeing the majority of charging happening at home. And that's probably just a result of the fact that there hasn't, again, been a critical mass of installations at, you know, workplaces, you know, public attractions and things like that.

In terms of the load profile for commercial charging, it really depends on what the nature of the business is. So for folks that -- for customers that have installed workplace charging, we are not seeing it hit at peak times, which is why we really want to encourage workplace charging because then those folks aren't going home and charging right when they get home and things like that. So workplace charging is not occurring during peak times. Do you have --

MR. CASEY: No. I would say half your point is accurate. Probably fleets, like I would imagine our own fleet here as we electrify our fleet, at 3:30 most of our vehicles are plugged in. So, you know, they are plugged in throughout the evening. I think there is technology out there that's going to -- something that we are looking at specifically as a large electric fleet how to flex that so it wouldn't be during those peak times. And then you can stagger your charge time for your vehicles along the way.

To Tiana's point, we haven't had that critical mass there yet to actually analyze some of that data.

CHAIR ROISMAN: Thank you.

MR. CASEY: You're welcome.

MR. HOWE: All right. Are there any other questions for Green Mountain Power? And I should have said this earlier, but if other utilities have questions and they are trying to figure out how to do their own rates, then we can -- this is more -- should be more of a discussion. So there is lots to learn here, and feel free to ask questions. Right?

Seeing no other questions for Green Mountain Power, thank you. And just to let everyone know, I just had an inquiry, so I plan to take a break at 11 unless folks need one sooner. But I think if we can get through to 11, we might be able to get through a few more of the utilities and then a little less time afterwards, and hopefully get through sometime around lunch. So I'll plan to take a break at 11. And just let -- speak up if you need one sooner.

So next up I have Hyde Park Electric.

MR. EVANS-MONGEON: Good morning. This is Brian Evans-Mongeon. Just a little perspective first. I'm now coming up being on the job for four months. Unfortunately, we no longer have access to our past management. So relative to what we have been able to do, been able to concentrate on my efforts of working with the other five people on our staff. You know, as you know, we are a small organization with six persons altogether. But we are working on efforts to comply with the various requirements, including this, you know, the tariff needs. And we are expecting to provide tariff filings by the due date, no later than the due date.

At this time, Hyde Park does not have any EV or EVSE rates at this time. That being said, we have not received any complaints or expressed interest to alter our current rates or, you know, rates for use or chargers. As our resource mix has been strongly supported by our community, creating rates that deviate from the current design have not been expressly desired.

As I've heard from a few discussions with customers, subsidization of rates should be discouraged within our footprint. This is likely due to being mostly a bedroom community as opposed to having a lot of commercial and industrial base. That said, we have been exploring the EVSE through the recently promoted effort with GMP and other utilities. And we look forward to considering those options as we move forward.

In consideration of that, we do have a few things that we are going to be taking a look at. One of them is working with the town of Hyde Park who has the highway department under their structure.

There is an upcoming Main Street upgrade project that is slated to occur in concert with AOT over the next few years. And that we would be looking to the possibility of integrating L3 or level 3 chargers into that project along Main Street.

When you take a look at Hyde Park, and the level of activity that is happening on Main Street, it is likely possible that interest of having the fast-type chargers could be of value there. So that, you know, in taking a look at that, but also we are looking for level 2 placements at the primary and high schools, vocational center and possibly the county courthouse.

So we are taking a look at conducting some activities, but we have not finalized any plans at this time.

MR. HOWE: Those level 2 chargers you mentioned, would those be owned by Hyde Park Electric?

MR. EVANS-MONGEON: At this point probably. Because of the community nature of them, they would likely be that. We have -- we are not aware of any commercial base that has requested or expressed a desire to install level 2 at this point in time.

MR. HOWE: And do you have any sense, just at a general level, how many EVs are in your service territory? Do you have any visibility into that?

MR. EVANS-MONGEON: No. What customers have done residentially, we do not know, because we have no means of identifying or understanding what they have done. So at this point we do not.

MR. HOWE: Okay. And just in general in terms of options you're considering, is there -- is everything on the table right now? Are you looking at time-of-use rates or some other approach is this just how -- has anything taken --

MR. EVANS-MONGEON: Sorry, Micah. I didn't mean to interrupt.

MR. HOWE: Go ahead.

MR. EVANS-MONGEON: No. We have not been exploring that. Part of what I wanted to hear today from this, you know, today's discussion, because, as I said, I'm still relatively new to this. You know, everything is on the table from the prospect of taking a look at rates construct. But we have not made any decisions yet in that capacity.

MR. HOWE: Okay. Great. Are there -- Commissioner Allen?

COMMISSIONER ALLEN: Yeah. If I could just ask a couple questions.

Hi, Brian. I wonder is there, and I know you're new on the job, and so the questions may not be -- sound fair, but I'm going to ask them anyways and you can --

MR. EVANS-MONGEON: I'll do my best.

COMMISSIONER ALLEN: Yeah. The first is kind of a technology foundation. I mean we have been talking about kind of platforms and, you know, what infrastructure is potentially needed to even offer an EV rate or a different EV rate. And are there -- and part of my concern in looking at Act 55 is whether essentially our utilities really even have the metering technology or the billing foundation, or whether they have to rely on essentially back end process changes in order to accommodate a differential EV rate.

Can you just kind of characterize, you know, as best you can, the platform elements that might be needed for you to actually offer an EV rate that complies with the Act 55?

MR. EVANS-MONGEON: Well at this point what I can tell you is that we have not instituted an AMI system at this point in time. Our structure is still one where in the span of three days our line crew will go out and read meters by walking around. So it's an aspect of where we have not yet had the resources to be able to implement an AMI program. So -- and that's one of the things that we are taking a look at, to see if in order to bring this about we need to alter our metering program, then that's something that we are going to put on the table as well.

COMMISSIONER ALLEN: Have you considered kind of work arounds on AMI? I mean Green Mountain Power hasn't necessarily kind of relied on its -- I mean I'm characterizing my understanding of the Green Mountain situation. But they have had work arounds. They do have AMI, but they, you know, they also have essentially the functionality embedded in the metering function that allows them to kind of remotely read and -- have you considered kind of the work arounds that may not necessarily require AMI to implement the rate?

MR. EVANS-MONGEON: Part of what I'm doing right now is I'm trying to conduct the research to understand what is the capabilities of our metering equipment that we have today. And we have not completed that effort yet.

COMMISSIONER ALLEN: Okay. And when you said that you plan to file by the new date, do you anticipate the new date to be essentially having rates in effect by essentially the Act 55 threshold that I believe it's June of 2024?

MR. EVANS-MONGEON: That is my understanding of reading the Act, that we would have to put -- have some structure in place. So yes. But I don't know what that design will be at this point in time.

COMMISSIONER ALLEN: Sure. And you reference, you know, you characterize the Hyde Park customers, and could you just help me understand does it mean that you spoke to the City Council or, you know, do you have active conversations with essentially customers on a regular basis to get their views on these things? Is there a systematic way of doing that or is it really just kind of informal and ad hoc?

MR. EVANS-MONGEON: Right now it's informal and ad hoc, but we are looking to implement a more structured approach on, you know, call on like many town meetings that we would provide for the opportunity for people to be available to address questions or, you know, bring thoughts to the table that we could, you know, that we could then talk about. But we haven't formalized that yet. But that's something that's on the table. Right now it's just been informal on-the-street type of conversations with folks.

COMMISSIONER ALLEN: In reference to subsidized rates, I just want to be clear on what you mean by subsidized rates. Offering -- is offering a discount in exchange for some measure of cost reduction that would be associated as you might achieve either through a time-of-use or a load management arrangement, is that a subsidy, or do you mean something different?

MR. EVANS-MONGEON: That is what I've taken the conversations from these customers to be. Is that if there is a different rate at a lower price, that is something that people have not been, you know, endorsing because of the fact that they believe that that gives a certain class of people an elemental advantage that is not necessarily available to everybody.

COMMISSIONER ALLEN: Even if --

MR. EVANS-MONGEON: Because not everybody, based upon the income levels that we have in Hyde Park, are able to afford the purchase of electric vehicles.

COMMISSIONER ALLEN: I'm going to just press at that a little bit further. I mean if the discount is an exchange for a reduction in the cost of system -- providing service to the system, it might benefit those other customers. Would they regard that as a subsidy?

MR. EVANS-MONGEON: Well we would have to explore that and, you know, run that approach out to see as to how that would -- how the people would take that as being part of the plan. Right now they just see it as being, you know, an advantage for the economically, you know, people that have a higher income.

COMMISSIONER ALLEN: Thank you.

CHAIR ROISMAN: I had just one question. You had indicated that at least your current thinking is that chargers would be owned by Hyde Park Electric. Are you considering leasing them or going to some private company and just offering them a spot and say you put your chargers there? Or are you actually considering that you would be the direct owner -- having bought the chargers and be the direct owner. And regardless of your answer, what are the factors that enter into that choice?

MR. EVANS-MONGEON: Right now at this time we have not made a determination one way or the other. All of that is on the table and up for discussion.

CHAIR ROISMAN: Thank you.

MR. HOWE: All right. I've exhausted my questions. Are there any other questions for Hyde Park Electric?

(No response)

MR. HOWE: All right.

MR. EVANS-MONGEON: We thank you for the opportunity to be a part of today. Appreciate it.

MR. HOWE: You bet. Thank you. Thank you. Why don't we go ahead and take our break now. Otherwise, I think we will probably run past 11 on Stowe Electric, who is next.

So why don't we take say a 10-minute break. Come back at 11:01. Or do folks want longer? 10 minutes be enough?

All right. Let's go with 10, and we can keep moving through the utilities. So back at just after 11. Let's call it 11:05.

(Recess was taken.)

MR. HOWE: Next up we have Stowe

Electric. Is Stowe Electric back? I see the green.

MR. LAZORCHAK: I'm back.

MR. HOWE: Great. Welcome. I had a couple questions about your comments. It sounds like at this point you have a residential rate 3 which is a time-of-use rate. Well maybe it's easiest if you just describe for us, if possible, your plan.

It says -- I think your comments said that the rate design will consider a time-of-use rate across all rate classes. And I assume that means residential as well as commercial. You mentioned multi-family. Maybe you could just tell us a little more about what your plan is. It sounds like you're pretty early in the process as well.

MR. LAZORCHAK: Sure. Yeah. I can step back and tell you what we have, and then what we intend to do. So right now we have public charging stations that are owned and operated by Stowe Electric Department. And we have updated that tariff for a kilowatthour charge. Beyond that, we do have a time-of-use rate for residential customers, however, there is no one taking advantage of that time-of-use rate. And frankly, it's probably because it's a bit outdated and not very beneficial.

So what we have done this year is we

have made the decision to move towards NESC, which is a comprehensive enterprise system, which will bring all our elements under one, you know, one platform. So that's OMS, GIS, ordering, financials, billing, et cetera.

And through that, that should make us more apt to do the types of things that BED and GMP are doing as related to residential and small commercial charging. In Q1 of '24 we intend to go through a comprehensive and complete rate redesign, and that's in response to just knowing here at the utility that we need to update and modernize, and then discussions, of course, with DPS about some of our specific tariffs.

In the meantime, what we have been doing with the residential and multi-family customers is if they are interested in entering into a pilot-type program, and no one's taken us up on it, quite frankly, because the cost of installing level 2 networked chargers and the associated upgrades is cost prohibitive.

So what we have been doing in response to that is just trying to educate our customer base to what they will likely see in 2024 which essentially is just a customer behavior outreach effort so people aren't shocked when they see the changes.

And I've also been trying to do a lot of work with our hospitality sector, so the restaurants, hotels, resorts, to feel out what their interests are as related to public charging and how we can work together to at least be prepared for the system changes and upgrades that could come in the next say one to three years. And that's where we are at currently with EV charging. Like GMP and BED, most of our charging occurs level 1 at the residential scale.

MR. HOWE: Okay. Just to follow up on that. Do you have any visibility as to whether there are any residential level 2 chargers in your service territory?

MR. LAZORCHAK: So what I -- I run the Tier III program here at Stowe as well. So any time I get an EV rebate request in, I will reach out to that individual and try to figure out what their charging plan is. We do have AMI. I'm told that I can somehow magically disaggregate that billing data to discern where the EVs are. I haven't got very far with that, or I don't even know if it's true. And I know that there is a lot of confusion in speaking with customers about what, you know, they think might be level 2 charging is just in fact level 1 charging.

So we have spent a lot of staff time trying to figure it out. The short answer is no, I don't have very much visibility. I do know the customers have asked to participate in a GMP-type home charging program. We have not got very far just because the cost to both the utility and the customer hasn't forced me to determine what that next step is. Can I actually manage and control that type of charging program here at the utility with essentially myself and an IT manager to help manage that type of program.

COMMISSIONER ALLEN: Micah, is it okay if I jump in?

MR. HOWE: Yes. Of course. Go ahead.

COMMISSIONER ALLEN: Thank you, Michael. I just wanted to ask the same question that I had asked previously of Brian Evans-Mongeon. And it sounds like you're essentially in maybe a different place. But do you have the -- essentially the technology foundation needed to offer EV rates whether it's kind of offered a -- specifically to the EV component or as part of a, you know, more of a dynamic rate platform that could apply?

MR. LAZORCHAK: We don't at the moment, but we will when NESC is fully on boarded in October. With that software platform comes the opportunity to be more dynamic. Right now if we were to implement an EV residential rate, or let's say an EV rate that isn't on a specific meter, it would require us to back out and do a bunch of manual billing, which quite frankly, we don't have the staff time to do.

COMMISSIONER ALLEN: And Michael, will that platform enable you to essentially automate some features of what might, you know, would be needed to cost effectively implement an EV rate given the limits of, you know, the person power that is required to do back-end kind of activities that might be labor intensive?

MR. LAZORCHAK: I'm told it will. I don't know for a fact that it can. But yes, I'm told it will be fairly straightforward for the utility. And what we are hoping is that it will be easier than our current billing system for net metering. And if it is, then I expect us to roll out a pretty aggressive program.

COMMISSIONER ALLEN: And as you are kind of thinking about what you would be rolling out, are you looking elsewhere at neighboring utilities in

Vermont or beyond our borders, as you think about what, you know, might --

(Interruption by court reporter)

COMMISSIONER ALLEN: It's really I'm just asking where you're getting essentially good ideas that you might apply in trying to establish rates going forward for EVs.

MR. LAZORCHAK: Yeah. I speak regularly to BED, VEC, and WEC. GMP is helpful. I just haven't had the time really to reach out to them, although I go to the internet and read what they are filing.

And at Stowe Electric we have a technical assistance project right now with one of the national labs to look at residential EV charging, most focused on income-eligible and multi-family housing, what would that look like. Here in Stowe we have a number of condominium associations, and not all those folks are at the higher end of the, you know, pay scale.

So we are trying to focus on a couple key buildings here in Stowe, and if we can design a rate and a plan that's appropriate for those buildings, then I think we will have an easier time of rolling out a more general EV charging program.

COMMISSIONER ALLEN: I know you've responded to the question in your filing. But I just want to have it top of mind.

Do you expect to essentially comply with the requirements of Act 55 --

MR. LAZORCHAK: I do. Yeah.

COMMISSIONER ALLEN: -- by 2024. Okay. Good.

CHAIR ROISMAN: I had a question or two. Michael, I don't know whether or not the Stowe Mountain Resort is covered by Stowe Electric. Is it?

MR. LAZORCHAK: Yes. They are.

CHAIR ROISMAN: Okay. So we recently had a big conference there, and I went to charge my vehicle. And Stowe Mountain Resort offers what is -- best as I can tell -- is free charging to people who are at the hotel and are using their valet parking. But it happened it wasn't available at that time because they said they get their electric charging through Tesla.

MR. LAZORCHAK: Right.

CHAIR ROISMAN: And I wondered can you explain to me what that arrangement is and whether that is something that's common in your territory or not.

MR. LAZORCHAK: I can give you a high level answer. The Tesla charging program that's up there at Spruce Peak is under -- I don't remember the nomenclature -- but it's something to do with like a key resort area. So they do offer this preferred charging which is behind, in essence, a pay wall, because you have to access the parking garage. To my knowledge it's only -- in Stowe's territory it's only at Spruce Peak. And for the other side of the mountain, the Vail resort side, they are -- they have been trying to roll out for the last two years a customer EV charging plan, which would be free for their customers who are using the mountain, and that, to my understanding, would be most likely a ChargePoint product. So would not be the Tesla style arrangement.

CHAIR ROISMAN: All right. And is it your understanding then that the Stowe Electric customer is Tesla? They are buying electricity from you at a wholesale rate, and then to the extent they want to charge anybody for it, they charge it. And it's completely independent of Stowe Electric. Correct?

MR. LAZORCHAK: I have nothing to do with the billing for Tesla up there. That's correct.

It's behind -- that's all occurring behind Spruce Peak's meter.

CHAIR ROISMAN: And Tesla is just paying whatever rate class they happen to fit into. I assume you have some commercial rate class that they fit into that's not unique to electric vehicles. Correct?

MR. LAZORCHAK: Correct. Yeah. My -- I don't know that the Tesla arrangement -- I'm more familiar with the ChargePoint arrangement because that's what we use. I'm guessing Tesla is charging something, and then they are passing a certain percentage on to maybe Spruce Peak. I don't know that arrangement. But that would appear -- the kilowatts would appear behind Spruce Peak's meters.

CHAIR ROISMAN: Okay. And just so I'm clear, at this moment, whether it's the ChargePoint or the Tesla one, the only connection that Stowe Electric has with it is they buy their electricity from you, and they buy it without anything unique in the rate that they pay because they are buying it to sell for electric vehicles. Correct?

MR. LAZORCHAK: That's correct for Tesla. I don't know if ChargePoint has other chargers in Stowe's territory that aren't owned and operated by Stowe Electric.

CHAIR ROISMAN: Okay. Thank you.

MR. HOWE: One more question for you. So the rate 35 for your Stowe Electric owned chargers, that is only for Stowe Electric owned chargers; right? So these other chargers we were just discussing would be on some more general commercial rate?

MR. LAZORCHAK: That's correct. They are going to show up on the meter owner -- that customer's likely in demand.

MR. HOWE: Okay. Has there been any consideration of making the rate 35 open to public charging?

MR. LAZORCHAK: So in a way, it is. If you are willing to enter into essentially what's an agreement with Stowe Electric. So if you were to install a fully networked ChargePoint charger that could be owned and operated, or at least Stowe Electric could help manage that charger, then -- which we don't have any of these -- but the thought would then be that you would slide in under that same rate.

And we have gone through with -- we have done a lot of site work with, I guess I should say setup work, with commercial customers, primarily the larger hotels, who have expressed interest in that.

But when it comes down to the cost of it, they have stepped away. We have also had a fair number of ownership turnover in our hospitality sector here in Stowe in the past three years which creates, as we all know, it creates difficulty. You're going down the road with a certain owner, and then that hotel's sold, and it's a changeover.

So I think we will see some growth in the next three years, but as everyone has identified, you know, the difficulty is the make-ready work, the interconnection work, and then the ongoing operations and maintenance. So for us, if you were to enroll in our public charging rate, we need some assurances that you're going to actually manage, maintain and operate those chargers.

And right now we haven't got to a level where we are comfortable that a third party or Stowe Electric customer could do that in a manner that Stowe Electric can provide.

MR. HOWE: So -- Chair Roisman?

CHAIR ROISMAN: I was just going to ask in regard to that maintenance question, which I think is a very important one, is Stowe Electric thinking that you would offer a rate that would only be available if you had some confidence that the company that was going to pay that rate would be maintaining its chargers in an appropriate manner for use by third-party customers? Is that what you're saying?

MR. LAZORCHAK: That's correct. We see it as we are offering not only a service to our customer base, but then folks coming into Stowe. And the reality is that if anything goes wrong within the municipal utility's territory, I'm the first one that gets called. And it's just not a compelling answer when I tell someone, hey, I have nothing to do with that specific charger. We want to be responsive to folks who call us and provide them with solutions.

CHAIR ROISMAN: And what are you thinking about as the mechanism by which you will assure yourself -- I mean it just happens that the experience that I had with the Stowe Mountain Resort was that there was some problem with the Tesla system. The chargers that were physically located at the resort weren't usable. They ended up plugging me into a wall outlet which, because I was there for three days worked, but obviously wouldn't have been very good if I had showed up in the morning to ski and wanted to go home at 2 o'clock in the afternoon.

MR. LAZORCHAK: Yeah. No, this is an ongoing concern that I have had. You know, that happens with our chargers as well. You know, we had the outages, of course, in December, but there is also times of the year when folks are up here, whether they are from out of state or just from Burlington down for the day, and the connectivity here is difficult, and the charger cannot initiate a session. And therefore, kilowatts are not dispensed into the vehicle.

So it is difficult. And the benefit of at least using the Stowe Electric charger is you can get ahold of me, and I'll either go check it out or we will dispatch a lineman to help. But that's the problem that we have here. With the tourist community and folks who are coming in for the day or even two days, if you have a vehicle -- if you have a Tesla and you need to get back to Boston, you need more -- you know, the level 1 is not going to cut it.

CHAIR ROISMAN: Okay. So --

MR. LAZORCHAK: All I can say is I'm thinking through the issues, but I don't have a clear plan that I know I can roll out with certainty.

CHAIR ROISMAN: All right. When you

find the answer, publish it widely. Okay? Because I think many of the utilities will have exactly the same problem. And it will be good if you guys who are very creative can offer some options for how to deal with that problem.

MR. LAZORCHAK: Yeah.

COMMISSIONER ALLEN: Micah, I have one more question for Michael.

MR. HOWE: Go ahead.

COMMISSIONER ALLEN: Michael, one of the concerns with especially the kind of fast charging -- commercial fast charging arrangements is that, you know, the fast charging could essentially trigger, you know, movement from a general service rate that is just energy based into maybe a higher threshold rate that has a demand charge or maybe even demand charge and time-bearing rates. But it's the demand charge that is kind of called out by commercial developers as kind of a particular challenge. And it's not necessarily a cost based, because the load profiles might be, you know, different than, you know, an industrial customer or the like.

Have you given any thought to that, or is that not a problem in Stowe's territory?

MR. LAZORCHAK: I've given thought to it. You know, it's not a problem right now just because the two fast chargers that we have are owned and operated by Stowe Electric. So, you know, it's ours to manage. But no, it's a concern. I mean I don't know how I will be able to create a favorable rate for public charging when we know when folks are coming back from the mountain, or they are coming back from dinner and they are in a hotel and they want to charge their vehicle, it doesn't really matter, in my mind, what time of day it is. They are going to charge their vehicle because they want to go home the next day or they want to go see another place in Vermont.

All I can say is I'm thinking through it. I'm trying to come up with a solution that makes sense for the utility and makes sense for the folks either living in Stowe or visiting Stowe. And I think for us, and that's why I mentioned it in some of my filings, I mean for me the real concern is the hospitality sector. If we are constantly keeping the hotel in demand because of the use of their customers, I just don't, you know, right now I'm not clever enough to come up with a solution that makes sense for everyone.

COMMISSIONER ALLEN: Thank you.

MR. HOWE: Are there more questions for Stowe Electric?

(No response)

MR. HOWE: All right. Not seeing any. Thank you, Mr. Lazorchak.

MR. LAZORCHAK: Thank you.

MR. HOWE: I will warn everyone I'm also getting some skipping in my GoToMeeting, so if I freeze or anything, it usually lasts for just a couple seconds. I think Commissioner Allen and I are probably competing for internet here in the office. It should only last a moment, and I should be back.

So next up we have Vermont Electric Co-op. Lisa Morris.

MS. MORRIS: Hello.

MR. HOWE: Hello. All right. So I will start off with just a general question. I was hoping -- I think I was aware of some of your rates from past years in the same investigation. But I wasn't aware of all of them, I don't think. So maybe just a general overview of your different rates.

It looks like you've got residential, small commercial, and large commercial. So maybe just a general overview of what those rates consist of for the benefit --

MS. MORRIS: Sure. These are three different times. These are all whole service time-of-use rates. There is the residential rate. So there is three different buckets. There would be on peak, mid peak and off peak. So three different time periods.

And then basically that same structure, but we have one more small commercial which would be up to 15,000 kilowatthours per billing cycle. And then we have one that goes all the way up to 130,000 kilowatthours for that cycle, for that larger commercial bucket. And they all have the differentiation for those three different time periods.

MR. HOWE: Okay. So these are rates that would be -- that were available for any purpose, and you could just put EV and EVSE into those; is that right?

MS. MORRIS: So they are specific to our Tier III programs of which electric vehicles are one of those. Also they would be available for heat pumps. Any sort of incentive that we offer under our Tier III program. Anyone who takes part in that would be able to opt into these rates.

MR. HOWE: Okay. Great. Then you also have the flexible load incentives. And that -- I can't remember. I am sure I've read it before, but you monitor whether or not a customer charges during the peak events using some sort of an internet connection. Is that how that works?

MS. MORRIS: Yes. We use a platform called Virtual Peaker to communicate with chargers. And there are certain models of charger that are compatible, so there is certain level 3 chargers that we can communicate with. And then there is others we can't communicate with.

So prior to this year we offered an incentive, it was a $300 incentive, if you have a ChargePoint or a FLO charger. Those are the two types that we can communicate with. And then if they enrolled in that platform so we could actively manage their charging, so when we call these events when we are expecting peak demands there are typically two to four hours that the event lasts. And we would send a signal to the charger and request that it not charge during that time period.

And as long as the participant doesn't opt out of events for the month, they receive a bill credit. So it's currently an $8 per month bill credit if they participate in those events. That way we can actively manage the charging and not rely on a fixed schedule.

MR. HOWE: The flexible load incentives is only residential; right?

MS. MORRIS: Well theoretically it could be for businesses as well. I don't think that we have seen any businesses take advantage of that. I think that that just has to do with the fact that we are largely residential, our service territory. But I think theoretically it would be available to businesses as well.

MR. HOWE: Okay. Great. Commissioner Allen?

MS. MORRIS: I would add, starting this year we began offering free chargers. So somebody can apply for a free ChargePoint or FLO charger, so we supply the charger. And they are required to enroll that charger in the flexible load program after that so they will be participating in these events. And they also get that $8 per month bill credit for participation.

COMMISSIONER ALLEN: So I appreciate that. And I guess I haven't been following your tariffs as closely as -- this is not a pilot. This is a tariff product that you were just describing, Lisa?

MS. MORRIS: The flexible load program is not currently in tariff. We have filed it as part of our Tier III plan. Since we are not offering a rate, and it's also not a charge, we had considered that to be under more of the Tier III structure where we can give bill credits without being in a tariff.

COMMISSIONER ALLEN: Okay. So and just remind me what kind of regulatory kind of review or oversight applies in the Tier III program filings relative to a tariff.

MS. MORRIS: I can't answer that question. So we have always -- for part of our -- as part of our Tier III plan, we offer incentives, you know, all sorts of incentives through that. And we had included this flexible load management program of home EV charging as part of our Tier III plan. And we are offering the bill credit as part of that.

So we viewed that as being similar to our Tier III incentives we have been offering.

COMMISSIONER ALLEN: Would you be offering this as essentially a framework that would be -- help you to comply with Act 55?

MS. MORRIS: That's what we were

envisioning.

COMMISSIONER ALLEN: Okay. And I'll just ask the other question that I have been asking of others which is: Do you feel that you have essentially the technology platform in place to essentially provide this -- the current framework rates and essentially any other rates that might apply to fleet vehicles or public-facing EVSE or other categories of EV rates?

MS. MORRIS: So from our perspective, the combination of the time-of-use rates which is available for pretty much all service classes other than industrial, I'll just mention that for the fast chargers that we have seen come online, they have set up a new account so they are kind of segmented off from the rest of the usage that is happening in those locations. So this would be something that would be available to those fast charging locations that you've seen come online, this time-of-use rate. So the combination of the time-of-use rate and the flexible load management programs we feel like it does satisfy the requirements under Act 55.

COMMISSIONER ALLEN: And when you say the time-of-use program, do you mean the whole house time-of-use rate?

MS. MORRIS: Correct.

COMMISSIONER ALLEN: And just if you could, my memory is fading, but my recollection was that the whole house time-of-use rate in VEC's territories had fairly limited uptake.

Can you correct me or set me straight on that?

MS. MORRIS: No. That's correct. That's correct. The overall -- I believe it's around 5 percent of people who have taken advantage of our electric vehicle incentive have opted for the time-of-use rate. But we have much larger participation in the direct management flexible load program. We have about 60 chargers that we are directly communicating with currently. And then we have a batch of probably around 40 more that have already gone out to our members and have not yet enrolled in the program because they haven't been installed yet.

COMMISSIONER ALLEN: Okay. And it sounds like you envision the time-of-use rates that apply broadly, across either a residence or a business, to essentially be the, you know, the critical tariffed services that will allow you to meet Act 55. Is that right?

MS. MORRIS: I mean we could definitely discuss the possibility of filing a tariff for this flexible load program. It has been more on a pilot basis to date, but as the program expands, that may be appropriate.

COMMISSIONER ALLEN: Okay. Thank you.

CHAIR ROISMAN: I'm going to make sure I understand. You've got the time-of-use rates, the three different ones. And then you've got the flexible load manager, and with the $8 a month refund. And if I understood you, the $8 a month refund flexible load is an opt-out program. It's automatically available unless you choose to opt out. Did I understand that correctly?

MS. MORRIS: So you do have to opt in at the beginning by enrolling in the program. And that is a requirement of the free charger that we are offering. So they do have to take a step to enroll their charger. But then when it comes to the events, so there could be several events per month, they get a notification every time that we are calling an event, and they could opt out of an individual event. So they would not be able to opt out of the larger program, but they can opt out of individual events.

CHAIR ROISMAN: Okay. And let's say

there are three events in the month, and I opt out of one. And I don't opt out of the others. Do I get a reduced $8 credit or one opt-out cost me the 8 bucks?

MS. MORRIS: The way that we have been treating that to date is that -- so what we are trying to do is we are trying to hit the New England peak, of course, and then we are also trying to hit the Vermont peaks. And the way that we have been treating that to date is if the event that you opted out of actually turned out to be the peak for the month, we would take the bill credit away for the following month. But if it is not the peak, then you would still get your $8 per month bill credit.

CHAIR ROISMAN: I see. All right. And what thought have you given -- basically it is an opt-out rather than an opt-in program in that you offer, just as GMP does, you offer people a free charger. And you say if you take a free charger, you have to get into the flexible load management. So you're giving them a not inconsiderable inducement to stick with it.

Have you thought about using that same approach and making your other time-of-use rates opt out as opposed to opt in?

MS. MORRIS: That's -- we have

discussed that. Yes. We weren't sure about, you know, the implications how people would react to something like that, you know, automatically being enrolled. Because what we would not want to do is have that be a disincentive for participating in the Tier III energy transformation program and taking, you know, those incentives. But I think we would have to do a larger review of how that would affect our system. And it's been a little while. We have been offering the time-of-use rate since -- I believe it was 2017. So it's probably time for us to take another look at that and see whether that would -- some changes would make sense.

CHAIR ROISMAN: And have you thought about -- I don't know if you have the technology in place, but if you have the technology in place to tell whether it's an EV charging or just, you know, your hair dryer charging, is it -- are you able to distinguish that and say make the EV charging an opt out and the rest of it could be an opt in on those time-of-use rates?

MS. MORRIS: We do not have the ability to see, you know, to see. I mean if we were to look account by account, EV charging is pretty obvious. So we can certainly do it, you know, on a case-by-case basis, but when it comes to systemwide being able to identify what is EV charging versus what is other types of usage, we do not have the ability to do that currently.

CHAIR ROISMAN: And are you looking to get that technology in place? Or is that just too big a lift, you know, in terms of capital investment to put in that kind of AMI?

MS. MORRIS: So we do -- I mean we do currently have AMI. But our meters and our platform does not have the ability to distinguish load. I mean we can see 15-minute data using our AMI system. But we can't tell what that actual load is. So I mean we are always working with our service provider to see what new tools they have available, so if that is something that becomes available, we would be very interested in something like that.

CHAIR ROISMAN: Okay. All right. Thank you.

COMMISSIONER ALLEN: Micah, I just have a couple more questions. First I'm interested in knowing do you have any way of gauging the level of participation that you're getting in that kind of flexible load Tier III program? Do you know, you know, how many EV customers you have and what proportion of them are participating?

Any way of gauging the success and, you know, marketing this program?

MS. MORRIS: Yes. So we have given out 523 electric vehicle incentives to date since we started the program in 2017. We are currently managing about 60 level 2 chargers. We have another -- it's about a hundred that have set a schedule. So that's another option that we offer. If you have a level 2 charger that's not compatible with our communications platform, is you can set a schedule to avoid 5 to 9 p.m. Monday through Friday.

So we have another 100 of those that are avoiding charging during that peak time period. And so that gets us to about 160. And then I believe there is about another 40 chargers that we have sent out that have not yet been installed and enrolled in the flexible load program but they will be. They are committed to doing that as a requirement for receiving the charger. That gets to -- we are about 30 percent right now, I believe, that we are actively managing, and I think we will be getting close to 40 percent. And that's as far as the level 2 charger.

So there is also a segment of our membership that is just using a level 1 charger, and we don't have -- currently have a way of managing that charging. But one thing that we are looking at piloting and we will be starting in the next couple months is using EV telematics so you can communicate directly with the vehicle. And that would be similar to the flexible load program except it bypasses the charger and goes directly to the vehicle. And that way it doesn't matter whether it's level 1 charging, level 2 charging, what the model of that level 2 charger is, we would be able to communicate with those vehicles in our service territory.

COMMISSIONER ALLEN: And so there is an incentive built in that I think is an $8 credit for participating in that program. Can you tell me does the $8, in your view, kind of provide, you know, a credit to that customer that's more than the value to the system or less than the value to the system? I'm just trying to figure out -- I mean are non participating customers essentially also benefiting from, you know, the election on the part of any customer to participate in that program?

MS. MORRIS: Yes. So the way that we structure that incentive my recollection is that we are giving, I believe it's 60 percent of the value, in that $8 per month credit. And then we are retaining 40 percent for the larger membership. And that would not -- that wouldn't be the margin on those kilowatthours that we are selling. That's actually the value of reducing the peak during those time periods. So there is kind of two different value streams there. There's the kilowatthours themselves that we are selling which we kind of look at that as money that we can use towards the electric vehicle incentives. And then also providing the free charger.

And then the other value stream is the value of reducing the peak which is what we are giving a portion of as that $8 per month credit.

COMMISSIONER ALLEN: So just to put a point or a pin in it, do essentially non participating customers better or worse off by your having this program?

MS. MORRIS: Oh, we would definitely say better.

COMMISSIONER ALLEN: Thank you.

MR. HOWE: Are there any other questions for Vermont Electric Co-op?

(No response)

MR. HOWE: All right. I think we have everything we need. Thank you, Ms. Morris.

MS. MORRIS: Thank you.

MR. HOWE: All right. So next up I have the VPPSA utilities.

MS. BRAESE: Morning.

MR. HOWE: Good morning. So it sounds from your comments like there are many -- well you have many utilities, many member utilities, and there are many moving parts. So maybe just to -- before we get into questions, you could give us an overview of where you're at.

I read from this several pilots, things you were working through. So maybe just a general overview, and then we could have some more specific questions from the commission.

MS. BRAESE: Absolutely. So as you know from the filing, VPPSA has been pursuing for several years to install AMI. And it is on the verge of deploying that project for implementation. The approach so far has been a very clear, although patient path, to getting AMI in place and then establishing some of these more integrated technologies in order to achieve better visibility, management measurement, and billing of customers' usage, specifically during electrification.

At this point, honestly, we are getting

close to this deadline, and so VPPSA is actively exploring other opportunities that can help achieve Act 55's requirements in the absence of AMI at this time. Some of the concerns we have and, you know, we are running a pilot with Efficiency Vermont, the Power Shift pilot which is specifically for residential EV chargers. We have seen a number of issues that result in ineligibility to participate. Most of those are either they already own a charger, or they don't have wifi, or the cost for make-ready work is so great because of the housing stock and the size of existing panels or the size of existing service can be prohibitive.

To that regard, we have actually expanded our eligible funds with VLITE. We have a grant through VLITE, and have included anything from the in home to full pop to help alleviate those costs and actually encourage EV adoption and charging at home.

That being said, there are still a number of challenges. If you look at Drive Electric's report on EV adoption, it's just not that high in our member service territories. We have -- since offering EV rates, we have issued about -- or EV incentives we have issued about 180 or so, 185 EV rebates. We currently only have a handful of participants in our Power Shift pilot program although that pipeline is growing, and we are consistently trying to market and promote that availability.

But again, there are a number of issues that stand in the way, primarily if you're using, you know, load control, active or passive, through behavior, it requires wifi and connectivity in order to actually schedule and monitor that charging.

Much like VEC, we are looking into a number of alternatives including with OEMs and telematics as a potential option. And also looking at ways other manufacturers are utilizing different communications networks, including using cellular devices or cellular connectivity, in order to monitor and connect that device.

MR. HOWE: All right. Great. Thank you. I wanted to follow up on one item raised in your comments. You had mentioned transportation insecurity, and I wasn't quite sure what that term meant. Maybe you could let me know, explain what that is.

MS. BRAESE: So the transportation insecurity is a term coined by Department of

Transportation, the federal Department, DOT. And it is defining much like energy burden, it means that term quite widely here in the state, but energy -- or transportation insecurity is meant to illustrate the sensitivities to change, either, you know, the cost of fuel, the distance traveled, the availability of public transportation, including and/or even the general infrastructure in the area.

As you know, there are a lot of dirt back roads in the more rural parts of the state so sometimes the higher priced vehicles are not the best for that area.

MR. HOWE: Thank you for that. The only other -- I just had some more questions about the Power Shift pilot program.

Can you talk a little bit more about how that works?

MS. BRAESE: Sure. So as part of the program, which again we have developed in partnership with Efficiency Vermont, a customer will receive a free level 2 level charger. And in order to receive the charger they have to meet certain eligibility requirements one of which is 24/7 wifi connectivity. It has to be a residential home that's occupied year round, and they have to be willing to perform those upgrades, service upgrades, or transformer upgrades required to adequately serve that additional load.

Once they have met all those requirements, they sign a participant agreement, they schedule their charging off-peak, and they, you know, verify that, and receive a $500 rebate in addition to a free charger for the installation. We receive -- okay.

MR. HOWE: Thank you. That's it. Okay. Great. Thank you. Any other questions for the VPPSA utilities? Commissioner Allen.

COMMISSIONER ALLEN: Yeah. I'll just ask the question I've been asking others. I understand that AMI has been kind of in view for sometime, and you're making good progress. But I wonder if -- I mean, you know, I think it was Stowe had mentioned, in essence, kind of what seemed like a full suite of software capabilities that needed to kind of accompany that hardware foundation. And I have a question about where, you know, VPPSA is in relation to, you know, not just the AMI but also the other software elements that might be needed to offer a program that can be automated.

MS. BRAESE: It's a great question. I think, you know, VPPSA is in a unique position in the fact that we continuously strive to offer and create an economies of scale for our members, and that generally happens through some degree of centralized services. However, that does not override our members' ability and desire for autonomy and ability to see and manage their own systems and control their systems.

So, you know, one utility can go out and find the correct technology stacking that works for them. It is often much more challenging to find a technology that will allow broad visibility for VPPSA and also individual visibility for the unique utilities. It's becoming more common. However, it's not necessarily prevalent, and when it is available, it tends to be quite a bit more costly.

So VPPSA is exploring a number of opportunities or, you know, potential solutions that can achieve these goals and value, you know, this technology stacking to support these rates, future rates, more dynamic rates, but it does take time, and the technology is ever advancing and changing quite rapidly. So we try to monitor that and seek the solutions that will meet our members' needs.

COMMISSIONER ALLEN: And I understand that you, you know, in the VPPSA territories there actually hasn't been a bunch of uptake in electric vehicle adoption, but, you know, for what you have, can you just -- do you have any sense of, you know, impact or proportion of customers that are getting EVs or, you know, participating in the Power Shift program?

MS. BRAESE: Well I mean we only have, like I said, a handful of participants right now. We have in all -- I had pulled some data back in April, and we had maybe 65 or so participants that had expressed interest in this specific program. Some of them already had a level 2 charger or a charger at home that did not, you know, wouldn't work with this pilot because this is for the FLO charger specifically. But, you know, 21 were either declined or were ineligible to participate. So that's almost a third.

And we have, as I said, several EV rebates, but that's not always the best metric or data source to determine actual EV adoption. I guess the long and the short is, no, not really. We don't have that exact data. But we are trying to infer that from what data we do have available.

COMMISSIONER ALLEN: Thank you.

MS. BRAESE: You're welcome.

MR. HOWE: Were there any other questions from the commissioners?

(No response)

MR. HOWE: Seeing none, I see a question from the Department of Public Service. Mr. Picotte.

MR. PICOTTE: Thank you. Hi, Ms. Braese. I have a question for you, and I'm hoping I can call on your expertise since you live across multiple utilities, multiple systems. And it relates to demand charges for public -- really for public serving EVSE, DC fast chargers, in particular. Although I realize it could apply to large fleets, let's say, that have medium and heavy duty vehicles requiring pretty substantial loads. And it's based in the Department but the -- both the Department of Public Service but also other agencies' work related to spending state dollars to build new public charging infrastructure across the state. And I'm hoping you can sort of correct, you know, either confirm or dispel my premise, but also help identify a solution. Which the premise is that DC fast charger with a load of 150 kilowatts or larger where charging at maximum capacity is happening in that peak hour will have a tremendous cost to the relatively small system, let's say it's a small muni. Is that true? And what do you see as a solution to addressing the fact that there is sort of this mismatch between the relative load of a DC fast charger that happens to be used by the public, a member of the public, at just the wrong time of the month or of the year, what's the solution sort of addressing that? I don't have one in mind, so I welcome your expertise.

MS. BRAESE: I appreciate the question. I think -- all the utilities are trying to work through that where for VPPSA's members it may have a greater impact just due to scale and size of overall load. I do think, you know, with fast chargers they are of such a size that they would be separately metered. And I think that when you have a separate meter or an installation such as that, you can -- you're better able, I would say from my perspective, to implement a rate that's going to ensure cost recovery while not cost shifting. Right?

And I think there are a number of ways to do that, but I also believe that's why it's very important for these companies, commercial or even public chargers, to be in very close communication with the utility. Because ultimately the utility is responsible for ensuring the load is met. Right? And I believe you could tie technologies. I don't think this is always the answer, but, you know, if you had a battery system also tied to that charger where you could offset some of that peak load to be able to shift slightly here and there, those are some solutions that could work.

Of course, you know, put that out in the field, but those are options. I agree and appreciate the Department's concern and other agencies' concern about the impact that that could have on the small utilities' overall load though.

MR. PICOTTE: Thank you.

MR. HOWE: Great. Any other questions for VPPSA before we move to the final utility?

(No response)

MR. HOWE: Seeing none, next up is Washington Electric. Welcome.

MR. POWELL: Good afternoon. Thank you.

MR. HOWE: I lost my place here. All right. So I will start with just the same, if you don't mind, providing a general overview of what you anticipate being your tariff filing when it comes time to file. You've mentioned one tariff peak, off peak, block rate design. Maybe you could tell us a little bit more about that to start.

MR. POWELL: Thank you. Sure. So although Act 55, I believe, calls for a due date of next July, '24, I also recall that the PUC has requested some form by I think mid October. And that is our current plan. Something intentional. It may not be an EV-specific rate, because what we see is perhaps a time-of-use rate. But I would rather -- so I answered your question about when.

I would also like to give the commission a little bit of a back cast, because there are -- and others here today have cited parts of what I'm going to address, some limits and barriers. One of the issues that we face, WEC is about a 17.2 megawatt project, plant, if you will, about 12,000 households, about 96 percent residential. Our largest single account on demand is a 300 KW high school; Harwood.

In the last decade WEC was awarded a VLITE grant. We provided that location and four others with a double to port charge point level 2 charging through, as I said, a VLITE grant. So we have had that experience, but that's a real limit in our market. We do not have a lot of public exposure.

We don't have a position in downtowns. We are out in the sticks.

One of the issues that we are dealing with, and I've mentioned this in other dockets, much of our transformer population is 5KVA. So we have kind of the double kind of handicap of relatively older housing stock with some 60 or 100-amp service entrances and relatively small transformer capacities.

WEC was an early adopter of AMI. We use a Power Line Carrier product. We are now in our second decade on that, and we are seeing some limits. Let me bring some of the barriers that are caused by Power Line -- not caused by Power Line Carrier, but have impacted Power Line Carrier metering with some of the devices that we are talking about. So what we see with net metering, for example, is when you put an inverter behind a member meter we often lose the communication path. The inverter creates capacitance in the line and the signal is killed to read the meter.

So we have to revert back to manual reading for many of our 900-plus net metering locations. That's a relevant burden. One of the solutions we are intending to do in -- and we will speak to this in our soon-to-be-filed IRP and our construction work plan -- is we are going to migrate to an RF mesh system. So we are going to have a hybrid system where we need connectivity and where we have the CUDs putting fiber up, so we can ensure a good back haul. We are going to put RF mesh metering where there is net meter now where we have lost signal, and we are doing manual reads once a month.

WEC has -- we actually pioneered the Power Shift program that others are now using. Again, I want to give full credit to Efficiency Vermont who was and is our partner in that. We are now in kind of our third phase of Power Shift which is a voluntary EVSE program where we provide the member with a ChargePoint unit at their cost to install. But one of the requirements in our participation agreement is that they are on the hook to pay for any service upgrades.

And again, I mentioned a minute ago we are seeing that where there is net metering because there is a high probability that a net meter member will then also want an EV, and EVSE is going to follow, and heat pumps and heat pump water heaters. So there is a convergence of beneficial electrification on this same metering issue that I described where we are back to manual reads.

Further, once you configure the type of metering we use for net metering so you can read power flow in both directions, that's the limit. I can't then later on, a time-of-use rate, to segment time-based buckets. Our Power Shift program, again voluntary program, if you meet the obligation which is make sure your service entrance is 200 amps and the transformer is right size, that involves, similar to others that have spoken today, two peak periods, a 17 hours of off peak and 7 hours from 3 p.m. to 10 p.m. of don't use it.

And as others have indicated, I can -- I know one of my Efficiency Vermont teammates is on this call, we have probably three dozen installed units with some varying amounts of communication. Because often or occasionally, members' routers go off and we lose visibility until we realize they are not being read and seen. And so we have ongoing kind of hand shaking and, you know, reiteration of how to set your router back up so you can be seen on the ChargePoint dashboard.

So we have, you know, the data, and we have a high confidence that members under this program have been staying outside of the peak hours.

The information's actually baked into the ChargePoint, but you can override it if you know the secret handshake. So it's kind of satisfying. And I think it's a good model that we will be using.

We have a time-of-use rate that predates my tenure at WEC that no members are currently on. So we will be probably using that as the vehicle to file an updated time-of-use rate contingent on the RF metering being in place. Because there is no way that we can offer that rate under the current platform of Power Line Carrier.

And while I have the floor, I would just like to throw in both Lisa and Sarah mentioned telematics and vehicle to grid, not specifically, I will, because to me this is, you know, an element of the market that the commission probably is looking at. And I would just advocate it's going to be bigger than what we are doing behind the meter with wifi-enabled dashboards. I think that's the big target that all the OEM and manufacturers and the third-party aggregators are looking at.

So I'll leave it at that. I welcome your questions. Thank you.

MR. HOWE: Sure. Thank you for that. I will let others go ahead with questions at this point.

Commissioner Allen, do you have questions?

COMMISSIONER ALLEN: I just want to follow up on that last point. I just want to be clear. Do the telematics, which I understand to be the, you know, interaction directly with the vehicle rather than with the charging, is that through the wifi system or is it outside of the wifi system in the household?

MR. POWELL: I think the answer is could be either or both. I mean I don't consider myself a subject matter expert. I'm simply seeing that the software element of EVs is, you know, taking over the whole -- the whole experience. That's what Mr. Musk wants you to do is buy his software that has four tires on it. And, you know, everybody else is going to be modeling that mechanism, including to the extent vehicle-to-grid backup is something that we all in this audience are anxious to see happen.

I think that that's going to be a threshold different -- you know, change maker, deal breaker, different paradigm once that becomes more prevalent. So I just think we are going to be in a position, and I'll layer on another layer here.

VELCO has deployed a statewide fiber network that is beneficial to the distribution utilities at the substation level and potentially beyond. I think -- and I don't want to speak for any other utilities, but there may be resistance to some distribution utilities having VELCO see all the way into an end point, but at the same time, that's what they and ISO are going to be needing if we are going to harmonize the whole picture, you know, one meter at a time, if you will.

So I just think there is another layer here. VELCO and the choreography of load control, flexible load management, where we are doing this one meter at a time, one member at a time, and relying on wifi, there are other options. And I think those will prevail over time.

COMMISSIONER ALLEN: Thanks. And you mentioned AMI and the fact that, you know, the technology -- that technology and the platform that is relied on with that technology is now, you know, getting relatively advanced in years. Maybe I'm overstating what you had characterized.

But are you looking ahead at the next generation of AMI and whether that might help to reduce some of the, you know, the aging pains that are associated with the current platform?

MR. POWELL: Well, Commissioner Allen, I hope I understand your question correctly. I use AMI as kind of a generic term, and the Power Line Carrier is a specific reference to a type, you know. It's great for one day -- one per day reading of energy. Or if I want to pull the meter for a peak demand, I can do that.

But again, with the issue that I cited where we are losing communication to a significant number -- an increasing number of member locations. Because not only is this problem that I described very visible and almost one to one with new net metering whether the inverter behind the meter, any device that has a variable frequency drive -- so think of every heat pump in Vermont and every heat pump water heater in Vermont has the same negative consequence on signal strength if you're using Power Line Carrier.

So in our market, that's a big deal. We went in not knowing that the fruits of our beneficial electrification would then kind of disrupt this new platform that we were so enthralled with getting out of monthly drive the truck around and read the meter. Now we are kind of back there. And we don't want to be back there. We absolutely want to be able to layer on to a net metering member an option of having a time-of-use rate for not just EVSE, but for load control and for sending the member a signal if we are having an event that, you know, we then, subject to a tariff, of course, that we have some mechanism to reward the member for participation.

We are not there yet. And I don't think we are going to solve it overnight. I think what you'll see, as I said earlier, is a modified time-of-use rate where the RF metering is available. And then, you know, some sort of a commitment on both parties. We will give you a different deal if you participate in this way. Credit on the bill, perhaps, or some other financial kind of compensation.

COMMISSIONER ALLEN: Is the plan to essentially meet the Act 55 requirements going to be some form of a whole house either time-of-use or time varying rate?

MR. POWELL: I think it is. I'm not a betting man, Mr. Allen. I would say we are in the early phases of an IRP with financial forecast, and we need to work that consideration. You know, whatever we need to do for Act 55 needs to be part of our thinking and our planning and our financial commitment and our construction work plan. So it's all got to tie together, and I don't want to get too far ahead -- over my skis here, but yes.

And again, with what we have already indicated to the Department, we will be working, you know, in the next six months on a mutually kind of visible method to solve what we need to do as far as the official filing in '24.

COMMISSIONER ALLEN: Did I hear you correctly that you have a time-of-use rate that you offer your customers, but there are currently no customers participating in that rate?

MR. POWELL: That's correct. You heard the same thing from Mr. Morris at VEC. That the mechanism that we have brought forward but no one participates in is not a financially beneficial rate. It's punitive almost. And it really relies on -- I mean I don't remember if you were at the Department then. But back in the day, when we had electromechanical disk meters, what the member would have to have then done would be to install a second meter and a path for a second meter, and then mechanically switch at a certain clock setting between one meter to the other. And, you know, that mechanism is long gone. We are in digital metering now. And I already, you know, described the issue with the current PLC platform.

So I don't know if it's all going to kind of fit the same way it would have fit 30 and 40 years ago. But the mechanism that I would be advocating is based on what I'm seeing in our Power Shift model which is 7 peak hours, 17 off-peak hours. And make it open to the whole house, and keep the wifi out of it. And have no other piece of equipment other than what the member may have on her phone or her own, you know, information.

COMMISSIONER ALLEN: But that would be in the form of a whole house time-of-use rate offering?

MR. POWELL: Again, I'm not, you know, I'm not in a position to make a formal commitment, but yes, that's what I envision part of our solution to respond to Act 55 will look like. Yes.

COMMISSIONER ALLEN: Okay. Well I mean if -- you have been here through the call. You might have heard me kind of asking a question about customer participation. And as you know, it's not to pick on any individual utility, because I think it's true across the United States that these, you know, these time-of-use programs and just about everywhere I've seen outside of Arizona, you don't typically get appreciable participation in these programs.

Do you believe that you will be able to overcome the challenge that is traditionally associated with these whole-house time-of-use frameworks to get higher participation?

MR. POWELL: I can't -- I can't speak to the Arizona example, but I infer that the way you get participation is you make your peak rate punitive and then you offer very attractive off-peak rate. So I think it's really what's the number and, you know, some sort of a method to show the member that if you do it this way, and you opt out or rather participate according to these guidelines, you'll be better off than on our current two-tiered rate which is approaching -- with the recent price increase it's over 26 cents per kilowatthour.

So yes, I do think there is some rate relief that could be possible, but I would be out of bounds to tell you what kind of participation we expect. I can't answer that question.

COMMISSIONER ALLEN: Okay. Thank you.

MR. POWELL: Thank you.

MR. HOWE: I do have one more question for you, Mr. Powell. Unless somebody else has one. I'll open it up to others before I ask mine. It was just sort of about -- I don't see any green microphones, so I'll just go ahead and ask it.

In terms of the Power Line Carrier problems and the interference, is there a way that those customers would be able to participate in that time-of-use rate? What would that look like?

MR. POWELL: I think the answer is for those locations where we know we have lost communication, they are going to be the first group that are going to get the RF mesh meter. So that deployment -- so it's not strategic, it's scattershot. It's wherever we lost the comm, that's where we deploy the RF. That would be contingent on good fiber back haul, which is contingent on the CUDs getting out there. So there is a little bit of phasing in and timing that I can't predict.

We are really fortunate to have a very active CUD covering 20 of our 41 towns. And the other CUD in our southern area is very well positioned already. There's fiber to 2,200 members in that area. So there is some relief that will come through this RF mesh migration, but it's not going to be overnight.

You know, when we first deployed PLC in 2012 with the ARPA money, the original federal program that VELCO promoted, we didn't have the kind of net metering distribution as we do now. And, you know, as we deployed, and we deployed it with our own forces. We took linemen and over about six months we installed 11,000 meters. And what we are going to need to do in this new vision of RF mesh is probably perhaps use our own forces or just hire it out to a third party that will come in and just get us up and get us running. Because we have a lot of other activity at the Co-op these days.

So did I answer your question?

MR. HOWE: You did. Thank you. Are there any other questions for Mr. Powell before we move away from the utilities? That's our last utility. And thank you, everyone, for your comments. This has been very informative.

It's 12:20 right now. I think what we have left to cover in terms of what I had on my agenda is to hear from the Department of Public Service if they have anything they would like to add, or if there are any questions for them on their comments.

From ChargePoint as well who filed comments in the investigation. And then just sort of housekeeping next steps in the proceeding and maybe setting a stage for some of the additional topics raised by -- in the comments that were filed.

I could see that taking up until probably 1 o'clock or so. So I don't know if folks want to break for lunch and come back and do that, or take a short break and come back and finish up. Does anyone have a preference?

THE COURT REPORTER: This is the reporter. I don't need lunch. We can keep going. That's fine with me.

COMMISSIONER CHENEY: I see in the chat -- this is Margaret Cheney -- that someone would like a break.

MR. HOWE: Yes. We will certainly take a break. It's just whether it's for lunch or for just a shorter rest period, and then we can finish up with everything.

It sounds like a short break will do it for everybody. That is great for me as well. Commissioner Allen?

COMMISSIONER ALLEN: Yeah. I would make it, you know, a little bit longer than that other break. But yeah. I think that would be fine.

MR. HOWE: Okay. So maybe 15 minutes, and then we come back and run through just the rest of the agenda. And ideally, we would get out of here around 1 o'clock or maybe a little bit after.

That's great with everyone. Let's go ahead and take a 15-minute break. So come back at say a little bit after 1:40. Does that work for everybody? Or 12:40. I'm sorry. Perfect. Let's come back at 1 -- 1:40. Okay great. Perfect.

CHAIR ROISMAN: 12:40.

MR. HOWE: I'm sorry. My times are off. Okay. 12:40 we will see everyone back here.

(Recess was taken.)

MR. HOWE: Okay. Let's try and go ahead and resume here. Hopefully everyone's back behind their screens.

CHAIR ROISMAN: 17 people.

MR. HOWE: All right. Let's go ahead and start then. So next up we had comments filed by the Vermont Department of Public Service. And also by ChargePoint. I just wanted to open the floor to them to see if there are questions for them or anything to add.

I'll start with the Department of

Public Service. Your comments were very helpful. Some key issues and also some topics for further discussion which I will address next steps last, but just based on what you've heard today, is there anything the Department would like to add to their comments at this point?

MR. PICOTTE: I have nothing to add. I've -- I asked one question, and I think that's been covered very well. Thank you. I guess the one topic that maybe hasn't come up and maybe is in the realm of is it a rate question or not addresses multi-family residents, and the best ways to serve them either on their property where they live, or not on their property where they live, at say a public charger of some kind. I think that's probably a larger, broader discussion than EV rates specifically.

MR. HOWE: Sure. And I think a lot of the -- well several of the suggestions fell into that category. My goal for today was just sort of get a sense for the commission of utility preparedness for next year's deadline and kind of the structure of what they are working on so we have a sense of that. I think that will inform some of the subsequent work that we do in this investigation and for the report that we file in January.

Did anyone have any additional comments for the Department?

COMMISSIONER CHENEY: I have a question. I was just struck by the fact that demand charges, which we really haven't talked much about today, were an issue for both the Department and ChargePoint. And I'm wondering at what point we will be discussing that. Because it does seem to be a really practical and potentially problematic issue.

MR. HOWE: Yes. So that's number one on my list for a follow up. I think that's probably a more in-depth discussion than we could have gotten in today just based on our first round of comment requests. I think some more focused requests around demand charges and maybe even an entire workshop dedicated to that topic would make sense, because I think that will take some time to work through.

We heard several approaches by the utilities or that the utilities have taken so far. But I think spending some more time on that would help us quite a bit to understand the issue, or more importantly, I guess, we all understand what the issue is, to understand potential solutions to the issue that might be implemented.

Any additional questions -- Chair Roisman.

CHAIR ROISMAN: I just wanted to say on demand charges I think looking outside of what we know in Vermont and seeing how other states are dealing with that would be very, very helpful to get -- because obviously everybody has the same problem. And finding out what, you know, what they are doing may give us some clues as to what works and what could work in Vermont.

MR. HOWE: Yes. I completely agree. Any other -- yes. Chairman Allen or Chairman. Commissioner Allen. Sorry.

CHAIR ROISMAN: Not yet, Riley.

COMMISSIONER ALLEN: Yeah, for another day.

I wanted to test the comment that was made by the Department concerning the value of, I think, load management relative to grid peaks over time because they become less predictable. The point is kind of well taken on one hand, but load management, at least theoretically, could extend beyond a focus on essentially the coincidence peak in Vermont. And what you're avoiding essentially are the RNS charges or the RNS charges that occur on a coincident peak basis in Vermont; is that correct? Philip?

MR. PICOTTE: Yes. But certainly on a monthly basis, but also the annual FCM peak.

COMMISSIONER ALLEN: Right. Right. But I guess, you know, imagining a day where essentially the only value stream that we are focused on is the monthly peak. And whether you've given any consideration to any other value streams that might kind of creep in over time as we think about the potential value longer term of, you know, managing EV loads.

MR. PICOTTE: I would guess you're referring to avoided transmission and distribution system costs?

COMMISSIONER ALLEN: Yeah. In particular, yeah. I mean it could be, you know, peak energy and other things too. But in particular, the upgrades that might be necessary to, you know, for the wire system to manage loads that are relatively peaking.

MR. PICOTTE: I myself have not given that much thought. And thinking about how some of that, when you get into T&D costs you end up talking about individual circuits and that hyper-localized aspect, then how to bring in rates into that question. I'm not there yet.

But it is -- you know, it is an important value stream, and maybe we don't think about individual circuits but we think about systems; right? Let's say a small muni system that has one point of interconnection to the transmission system. Just to -- hypothetically. That could be a place where rates matter with clear opportunities to avoid T&D costly upgrades.

COMMISSIONER ALLEN: Well I mean the conversation we are having is about EV rates and, you know, the increasing penetration of the EVs. And in my mind that's a very long-term kind of challenge. And we are having a conversation about rate design now. But, you know, at least from my standpoint, I think kind of looking and thinking not only in terms of individual years but multiple years in the future, those other value streams I would be interested in knowing if there are -- if the Department thinks that there are value streams that extend beyond the monthly peak. I'll leave that for another day. I think that's the only thing that I had. Thanks.

CHAIR ROISMAN: I had something I would be interested in the Department's thinking on. I mean traditionally rates, of course, have to be just and reasonable, and we all agree with that. And they should not go shifting -- subsidizing one kind of user versus another kind of user. But I thought it was interesting to hear from Stowe today about what they are doing to try to make sure that the customer to whom they are selling wholesale electricity, to ultimately be used to sell retail to EV users, are concerned about that wholesale purchaser having equipment that is working properly so that when the EV customer shows up, they get it.

There are other things that are equally relevant, and as you know, part of Act 55 is rates should encourage the use of EVs. So, for example, at least in my experience, there is no signage that tells you where the EV chargers are located. You can go to a website and get generally there is some at this mall, or there is some at that convenience store, or there is some at that auto dealership, but there is no sign when you get there that says turn left here, it's on the second level, it's in the back corner. Whatever. No signage at all.

The -- similarly, and Stowe has indicated there are problems with the chargers not being adequately maintained. You've got a charger.

It doesn't work. That's like having no charger -- no charger at all. And third, the chargers are often difficult to use. You know, you go up to a gas station to buy gas, you put your car next to the pump. You take the pump, you put your card in, you take the handle out. You stick it in the car. You fill it up with gas. Couldn't be easier.

Not that way with the chargers. Although there are programs that some of the charger operators have that if you use their apps. it solves all of those problems, one of which is here today, ChargePoint. So I'm wondering what the Department's thought is about encouraging the utilities who are selling their electricity wholesale to do what Stowe is doing across the board.

In other words, say we will give you rate A if you do these things, and if you don't do these things, you're going to get rate B. And A is the more favorable rate. And I'm talking now not about homeowners. I'm talking about these commercial places where the chargers are.

Any thoughts about whether that's part of what should be in the rate design for the utility selling essentially wholesale electricity to chargers?

MR. PICOTTE: So it sounds like you're describing, perhaps to come up with terminology, but a performance standard for public charging quality, call it something else, but I think your point's about finding it, about making it -- the experience customer friendly and somewhat the same, and probably most importantly, about up time requirements and making sure that when a customer who is counting on it to be in a location reaches the -- especially the DC fast charger, and it works, because they may have no other option to continue their journey, that it's working.

I think those are all very important and so far unanswered questions in this space. I have not thought about how to and further --

(Interruption by the Court Reporter)

MR. HOWE: I just noticed -- I don't know if it's caller 1 or caller 2. But the folks that have dialed in, could you mute your phones? Thank you.

MR. PICOTTE: So I have not given any thought to a preferable rate tied to the performance of the equipment. I think I would have to consult with Ms. Brennan from the Department and others on how that could work and justifying it. But yeah.

Based on the idea.

CHAIR ROISMAN: I think you heard the Stowe representative today say they too have not yet worked out how they would verify that. It's all well and good to say your charger has to work for you to get this special rate. But it's not like they are going to have an inspector running around or not likely to have an inspector running around to make sure. I mean you might have, you know, a mechanism that when the charger fails there is some reference, some data, and at the end of the month if it shows that -- the data showed that you failed more than X, then you don't get that rate. You have to get the higher, you know, whatever. But okay.

Well I'm glad to hear that you feel that it's something that would be worthwhile doing. How to do it is obviously the hard part.

MR. PICOTTE: Just for context, the place where the state, you know, the different agencies have encountered this is through the state-supported DC fast charging and other public charging programs where we write in our contract terms and enough time requirement of 99 percent or something -- some number like that.

And I believe it's then self reported

by the operator to say, well, it was available, you know, this many hours in the month. It was available X hours. So it's self reported. Perhaps not perfect. But it's a start at least.

CHAIR ROISMAN: Thank you.

MR. HOWE: Are there any additional questions for the Department? And I'm still getting a little bit of feedback occasionally. I think it may be caller 2, although the callers probably don't know who they are. But if you are on the phone connected to the workshop, can you please mute.

All right. So with that, thank you, Department. I don't see any other questions for you. We will now call on ChargePoint who also submitted comments in this proceeding. Is there someone from ChargePoint here?

MS. KENNEDY: Isla Kennedy with ChargePoint.

MR. HOWE: Welcome. Thank you. So your comments were very helpful. I think you probably have a unique view of sort of nationwide solutions to some of the issues that we will be talking about in more depth such as demand charges. Those were very helpful.

I guess I'll -- are you ready for

questions from anyone?

MS. KENNEDY: Sure. Happy to.

MR. HOWE: All right. Caller 2. Can you please mute your phone before we do that.

All right. Sounds good for the moment. Does anyone have any questions for ChargePoint or comments -- Chair Roisman.

CHAIR ROISMAN: Yes. It's not even so much on your comments. Without violating some corporate confidentiality, I sort of want to understand the business model.

ChargePoint has chargers at various public locations. Are those owned by ChargePoint?

MS. KENNEDY: Sure. So ChargePoint is a little bit different from other large EVSE companies. In its case the overwhelming majority of the stations we do not actually own. The owners of the site of say, whether it's a Target or a convenience store, what have you. That isn't typically the case much like other others like EVgo per se to my understanding.

CHAIR ROISMAN: Okay. But they are buying your charger. They are not buying somebody else's charger. They buy it from you.

MS. KENNEDY: Right. So ChargePoint

has both the hardware and software side, but they buy it, the site host, through ChargePoint, and then the site host operate it themselves.

CHAIR ROISMAN: Okay. So my second question is when billing is done by the utility that's selling at wholesale the electricity, does that bill come to ChargePoint? Or does that bill go to the owner of the charger?

MS. KENNEDY: That's a good question. It does just depend on the circumstance. I know to the question earlier, say for Stowe with the hotel, I would assume in that point the bill would actually go to the hotel. I, of course, don't know for sure. But generally the site host in ChargePoint's case specifically, since they own it, they take the responsibility there, and they can set the pricing themselves. Whether they are providing it for free or if subsidized, seeking just cost recovery, or making a bit of a profit, they can press that themselves through there.

CHAIR ROISMAN: Okay. And ChargePoint doesn't impose any conditions on them. If they bought the charger from you, and they want to double the price or halve the price, or you know, put the charger at this space or that space, none of that

ChargePoint gets involved in; correct?

MS. KENNEDY: That's right. We encourage them to price it competitively, but at the end of the day it is up to them.

CHAIR ROISMAN: Okay. Now what about the customer service piece of it? I've used the ChargePoint chargers a lot for my car. And when I run into problems with getting plugged in there is a phone number that I call and identify the number on the charger. And somebody talks to me. And when I still can't make it work, they take over the charger for me. They turn it on. They see that I have an account. They turn it on. And my account seems to have a balance, which I've always thought I was paying to ChargePoint. And the charges that I have when I use the charger go against my account. And I keep putting -- I replenish it from time to time.

Am I talking to a ChargePoint service provider who is part of a service that ChargePoint charges to the owner of the charging station?

MS. KENNEDY: You know, I'm not entirely sure on all the specifics. But I know if that were the case, I would think it would be remedied through the site host and there would be some sort of communication between the two, just to get that squared away in terms of billing.

CHAIR ROISMAN: And if the charger isn't working, does ChargePoint have a service program? And customer pays for it, but that they will come out and repair the charger?

MS. KENNEDY: Yes. There is a service that's called Assure. And just like you said, it's where that maintenance is included for the site host to choose to have that service.

CHAIR ROISMAN: So just like the typical appliance, I get a refrigerator, I pay Maytag. And they will have it serviced for the next year or two or extended. Correct? That's how it works.

MS. KENNEDY: That's right.

CHAIR ROISMAN: Okay. All right. I think that's all the questions I had. I just wanted to understand sort of the model. And you say you think that the ChargePoint model may be different than lots of other, you know, Electrify America or EVgo or any of these other --

MS. KENNEDY: Yeah. That's right. It's not the same across the board. The ones that come to mind as far as larger ones, EVgo and Electrify America are two examples that I believe they either own them entirely or at least the majority, unlike ChargePoint.

CHAIR ROISMAN: Okay. Thank you. Thanks very much, Ms. Kennedy.

MR. HOWE: I see Commissioner Allen. You have some questions for Ms. Kennedy?

COMMISSIONER ALLEN: I just have a couple questions. First of all, I'll just start with a comment which is you've heard others say it, and you say it, that demand charges are an issue. And from my standpoint, demand charges are there for a reason. Which is, you know, recovery of costs for low load factor entities.

So I'm just interested in essentially the work arounds. And I know Green Mountain Power has one work around. I think that's fully justified by the lift profiles that happened to exist for the public charging stations that they apply that rate to. But I would be interested in just kind of learning of other experiences.

So to the extent that ChargePoint of all groups participating in this is probably most likely you would be familiar with kind of the innovative rate models out there, and hopefully you can enlighten us as this proceeding unfolds.

The other relates to a comment, maybe I'm not reading it correctly, but it's been characterized as expanding existing industrial rates for low load factor industries. And I'm not positive I understand what is being communicated there. Is that -- is the Green Mountain Power commercial rate 6 an example of what it is that you're talking about? So a rate that is free of demand charge?

MS. KENNEDY: So I know Green Mountain Power did provide a response when we had initially -- ChargePoint had initially submitted the comments. I know it was the concern in viewing rates 8 and 63, 65 which was addressed in our comments. Under the assumption that for C&I customers including those with EV load that they would be incurring significant demand charges of 16 dollars and 19 per kilowatt respectively.

Based on the reply comments, as well as the discussion to date, it appears that that might not be the case, given rate 6, and assuming that all EV customers could be on that rate, we would view that in general as a positive outcome. However, it's fairly clear to me, although not entirely, but after this discussion it seems that Green Mountain Power had provided some clarification there with the exception for the unique load of EVs, to be able to have mitigation around them.

COMMISSIONER ALLEN: Thanks. I think I'll save my follow up for a follow-up question in writing.

MR. HOWE: All right. Are there any other questions for ChargePoint?

All right. So I think that covers everyone who filed comments in this proceeding or in this investigation in response to our first request.

Before I go on to next steps, I'll ask if anybody has any general additions based on anything that they have heard here that they would like to add.

(No response)

MR. HOWE: All right. I don't see any green microphones. So in terms of next steps, we had a number of recommended topics, some of them larger than others; some of them smaller.

The most notable being, as several have observed, demand charges. So I think I'm seeing at least two additional workshops potentially here. I think demand charges could maybe be paired with a smaller topic. But just in terms of going forward, I can see at least two additional workshops and two additional requests for comments from the participants to cover everything that was raised.

Some of these may be more amenable to a multi-topic workshop, but I think demand charges and possibly multi-unit housing could be sort of anchors to those workshops.

So at least my recommendation going forward to the commission, and certainly we will talk about it after this and come up with a plan, would be to, you know, reserve two empty slots for workshops going forward with rounds of comments to cover some of these additional topics. And we will precede those workshops with requests for comments from the parties, and that will probably take us into fall. At which point we will have to start preparing our report to the legislature.

So sort of -- it could increase the number of -- certainly there are enough topics here where we could increase the number of workshops, but just given the time constraints, I see at least two, possibly three in my view. But we will discuss that internally.

And just so -- I just wanted to alleviate any concerns that topics that were raised that require further discussion are not being omitted from discussion. They just -- we haven't reached them yet. So this will be an ongoing investigation in contrast to past years where we just more or less a request for comments and then prepared the report on that.

And that is everything I wanted to cover. I would expect that we would turn around the next workshop in probably towards mid to late summer. I guess it is mid summer. Commissioner Allen?

COMMISSIONER ALLEN: Yeah. From my perspective, it would be helpful to provide some follow up to the process with a couple of the utilities that I think have been, you know, essentially trailblazers in this space. So I would like to follow up, just example, with Green Mountain Power and BED, perhaps Stowe and VEC, on some of the efforts that they have had underway so there is a good flow of different ideas that are shared amongst everyone participating.

MR. HOWE: Okay. And would you envision that being through comments, or would that be an additional workshop topic?

COMMISSIONER ALLEN: I'm just envisioning kind of setting up something through specific questions that actually come from us. But you know, I have additional questions that I have for a number of the parties, maybe all the parties. But I think I would like to tease out in a better document, essentially, you know, the successes and the struggles that are out there that have -- that we have scratched the surface of in this workshop.

MS. BRAESE: If I could, I was going to ask respectfully that it would be something open and all parties engaged in any additional questions. We have done a lot of work researching and finding those learned lessons, and we would hope to be engaged in that as well.

COMMISSIONER ALLEN: Appreciate it.

CHAIR ROISMAN: And Micah, I would like to see us focus on the non-home EV charging rates question, both the large commercial customer who is using this -- is using the electricity charge their own vehicles, you know, the fleet vehicles and so forth, but then the others, the commercial establishments that are charging other people's vehicles. What's the best way to set the rate? And what conditions on those rates, different variant rates, based upon the functionality and usefulness of the EV chargers. You know, including questions like one of the -- and I now can't remember which utility, oh, I know, it was GF Power, who indicated they were going to make sure that they put in the infrastructure that would allow easy expansion of the number of charging stations that they would have, as the demand grew, rather than just put in infrastructure that was adequate for the current demand.

The questions like that that fit within the Act 55 goal of encouraging EV use and looking at all the different things that we might do for that aspect of EVs.

MR. HOWE: Okay.

CHAIR ROISMAN: And I don't know that that requires a whole session of workshop. But it certainly is a topic that I think would be very helpful to hear what the utilities like Stowe and GF Power are doing and what's being done in other jurisdictions.

MR. HOWE: Certainly. Great. Yeah. I think we have a number of topics, some of which could fall within a multi-topic workshop, and then some which may be just either one or two topic workshop. But I will sit down and see how I can break apart the recommendations and maybe put them into coherent groups. And then we can discuss -- we will discuss how to go forward.

I'll prepare a recommendation for you, and we will look at that for awhile. With that, is there anything anyone else would like to add on what we covered today?

(No response)

MR. HOWE: All right. I think that is all we have to cover for today. And just keep an eye out for our next request for comments.

And with that, maybe we can try and include sort of a more laid out schedule for the rest of the investigation with the topics so everyone can know what's upcoming. With that, I thank you, everyone, for your participation. This has been very informative for me, and I hope it was for everybody else. And we will be in touch soon. Thank you.

(Whereupon, the proceeding was adjourned at 1:14 p.m.)

C E R T I F I C A T E

I, Kim U. Sears, do hereby certify that I recorded by stenographic means the Workshop re: Case No. 23-1364-INV, via videoconference, on June 23, 2023, beginning at 9:30 a.m.

I further certify that the foregoing testimony was taken by me stenographically and thereafter reduced to typewriting and the foregoing 135 pages are a transcript of the stenograph notes taken by me of the evidence and the proceedings to the best of my ability.

I further certify that I am not related to any of the parties thereto or their counsel, and I am in no way interested in the outcome of said cause.

Dated at Williston, Vermont, this 25th day of June, 2023.

Kim U Sears