DEV Multi-Family EV Charging Webinar Transcript

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With that, we could just kick things off.

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I want to, I just want to start just kind of giving a general lay of the land.

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We're all familiar with electric vehicles at this point.

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They're ubiquitous.

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We see them every day and we can tell the demand is increasing and and you know really driving this effort are a lot of a lot of key factors.

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Nationally.

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We've really surpassed this tipping point where AV penetration is become a reality and that that's where the industry is moving.

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There was a an article in Bloomberg recently that indicated that that tipping point is around 5% of EV sales nationally and and we've recently reached 6% of EV market share nationally and even in the state of Virginia we're already at 8%.

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And so it's it's our reality that EVs are are are the future.

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And so we're trying to position ourselves in a way that we can we can help facilitate that transition.

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And we're seeing this throughout the industry as well as automakers are starting to commit to producing more, more models and more options for consumers at lower price points, setting really ambitious targets for reaching EV sales goals and even trying to phase out the sale of internal combustion engines or ICE vehicles, some even by 2035.

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As we can see in California, those statutes have been adopted by other states.

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So we also look at, you know, how policy is driving these as well.

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Federal policies have been coming out lately that have really been incentivizing the purchase of EP, the expansion of EV infrastructure through the Inflation Reduction Act and through national programs like the National Electric Vehicle Infrastructure Program or Nevi.

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And there are all sorts of grand opportunities that are, are that are available for anywhere from residences to commercial applications for charging incentives or EV incentives.

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And so there's really a huge national, state and local push to really Dr.

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EV adoption at this point.

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And you can see within the state of Virginia, currently there are already 66,000 EV's on the road.

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And due to all of the factors we just walked through there, we're forecasting by 20-30 to have 500,000 and even by 2050 to have almost four and a half million on the road.

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So this trend is going upward and it's great that we're all on board with trying to kind of help see how we can facilitate this transition before we kind of dive into what a multifamily charging solution looks like.

3:02
I just wanted to give a brief foundational 101 on kind of the the charging infrastructure aspect of it as well as just a little bit about charging stations.

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I won't spend a lot of time on this because I know a lot of people probably are already familiar with it.

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But on the left side of the screen, you can see the traditional utility infrastructure piece and this is what Dominion handles.

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This is the generation, transmission, distribution, everything that goes up to your electric meter.

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And then regarding EV infrastructure, once we get beyond the electric meter, we're looking at the what's referred to as the electric vehicle supply infrastructure or EVSI.

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And we in the utility space refer to it as customer make ready and that's going to be running, putting in new panels, running conduit and wire from your electric meter up to where the charger itself would be.

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And then the charger is this third component of the EV infrastructure that the charger itself being that referred to as EVSE or EV supply equipment.

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So it's it's a good, good, it's good to have a sense of when we talk about these different pieces of the charging infrastructure of what utility is responsible for this utility infrastructure, what the customer is responsible for, which is this EVSI or EV supply infrastructure as well as the customer being responsible for their charger, the EV SE supply equipment.

4:23
So moving on from that, we can look at just a very basic understanding of what a charging station, what the various levels are and I'm sure everyone is already very familiar with with level 1-2 and three or fast charging, level one being, you know what you plug your coffee machine into.

4:39
It's a regular 120 Volt outlet that you had at home.

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It's going to be a slower charge, 3 to 5 mph and it could take a vehicle a day or more get up to 80% charge.

4:51
So there are definitely applications for this type of charger and it's being used very widely in residential uses.

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But you know in many instances it's seen as not being as as capable of meeting the demand of of of EV users and drivers.

5:07
Level 2 is the sweet spot.

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That's your two 08240 Volt outlet, what you're plugging the dryer into basically.

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And you can get a significant charge overnight up to 80% but in in you know 4 to 8 hours depending on the the type of charger that you have.

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And this is what we see in most applications for multifamily use or this is what you may see at a shopping center, things along those lines.

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And then we move on to our Level 3 or DC fast charger.

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That's going to be a much higher voltage, much more power and it can get you up to 80% charge in 30 minutes more or less depending on where you start.

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For the purposes of this webinar, we're not going to be talking about the DC fast charging.

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That's going to be something that you'll see on Interstate or alternative fuel corridors as part of the the federal Nevi program for instance, where they're they're much more expensive but they're much more robust and they're they're made for getting in and out quickly.

6:03
So with that understanding in mind, we can kind of jump into what we're here to discuss today, which is charging solutions for multifamily properties and really it's important to look at why there is a need to improve charging for multifamily housing.

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Home charging is considered one of the most significant parts of the EV ownership experience, and recently the Department of Energy estimated that over 80% of EV charging takes place at home because it's more convenient and because the the cost of residential charging is relatively low compared to charging elsewhere.

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There are around 80 million Americans that live in multifamily housing developments and that represents about 30% of the US housing market today.

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But that said, even though that's about a third of all households, multifamily only accounts for about 5% of home charging.

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So this represents a huge number of drivers or potential drivers that are living in multifamily communities.

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We're just being left behind in the transition to electric vehicles based solely on where they live.

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So as we see EV sales rising, we're we're at Dominion, are starting to have more conversations with multifamily groups and we're learning more and more and we're learning that the people living in multifamily housing are looking for charging solutions.

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There was a survey conducted last year by the National Multifamily Housing Council.

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They found that around 27% of renters indicated they were interested and easy charging stations.

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And of those renters about a majority I think indicated A willingness to pay a premium each month for onsite charging.

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I think the survey indicated that upwards of $28.00 a month just to have access to onsite charging.

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So given this growing demand, multifamily property owners and managers that we're speaking to have are increasingly interested in exploring EV options, charging options.

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So there are there are a whole host of benefits associated with investing in charging infrastructure for multifamily housing and I'm sure everyone on this on this webinar today is very familiar with it.

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Not only is EV charging the valuable amenity for existing residents who already have electric vehicles, but it can also make the property stand out, attract new residents and searching for a community that has has charging stations.

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It can support clean transportation in the community as well as any kind of sustainability goals that you that your multifamily property may have.

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And it can expand equitable access to charging and what can be considered charging deserts, low income areas and disadvantaged communities.

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So I mean the the benefits associated with expanding multifamily charging are are are numerous and countless.

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So it's it, it it's definitely there's an opportunity for for expansion of infrastructure in these areas.

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That said, the despite the clear need and opportunity to expand charging infrastructure and

multifamily housing, there is also a very real reason as to why the sector of the housing market has been not been able to pursue charging like the rest of the the industry has.

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And it's because owners and managers are facing very unique and very real challenges when it comes to installing charging stations on their property.

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One of those is just education.

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Multifamily property owners and managers generally have very limited information about EV's and charging, and they often don't see charging access as a problem that they need to solve.

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You know, among the other myriad problems that they have to deal with every day.

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But the 80 million Americans living in those communities, they're taking upon themselves to solve that problem, as many of you have probably seen.

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They're they're evaluating how they can make the transition to an EV and we can see that customer demand for charging for structure is far outpacing availability in every sector, but especially in the multifamily sector.

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So many cases you'll see individual tenants or or owners of individual units installing their own chargers, which you know it's a temporary solution.

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That may work for now, but once the existing panel capacity at your facility is used up by the first few chargers, upgrades will be necessary.

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And those can quickly get complicated, time consuming and expensive.

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So this leaves multifamily property owners and managers and and and homeowners association members in a position where they have to play catch up and educate themselves.

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And they're suddenly dealing with a lot of very complex questions that they need to be able to answer.

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They're looking at how do they estimate demand and utilization for EV charging, What types of charging and hardware and software are there?

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What are the options?

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What is their existing electrical capacity?

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What are, what are the options for networking capabilities, parking conditions, image structures and cost allocation?

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If the list kind of goes on, there's a lot, lot to be educated about and so there there are a lot of resources exist, but you know it's hard to be able to manage all those resources in addition to managing the property and and other things as well.

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And so that's just a huge challenge.

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It's extremely complex.

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And that leads kind of into the next problem, which is it's technically complex as well.

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Every property is different, and every property has its own unique solution set.

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Electrical infrastructure, layout and power capacity couldn't look very different from one multifamily development to the next.

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But sometimes they can vary significantly even from one building to the next on the same property.

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There are only a few, probably multifamily buildings that will have the electrical infrastructure needed to support multiple chargers operating at the same time.

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Most won't even have that capacity.

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So it takes a really teen eye and an experienced license electrical contractor to evaluate those technical needs and develop a custom solution.

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And that custom solution can result in what may be one of the biggest barriers to consider, which is cost.

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Installing chargers on multifamily properties often carries a much higher capital cost than at a say, a single family home or a shopping center.

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It requires a much more complex make ready process so that that getting getting the infrastructure installed from your meter up to where the charger is going to be.

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This is especially true if the project is being completed as a retrofit of an existing parking structure where you need to trench through concrete or asphalt.

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The cost of installing chargers can also vary substantially based on the location, any necessary electrical upgrades, the amount of trenching or conduit required, and any other site specific factors that could require construction that goes above and beyond what would be considered normal construction.

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And all of that said, this is just accounting for the the even make ready infrastructure.

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This doesn't even account for any costs associated with hardware, your chargers or the software involved in managing those chargers or ongoing maintenance and and operations as well.

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So the the list, the list goes on.

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And there are a lot of moving parts that influence the cost and the success of a project.

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And each of them can be a roadblock.

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And each is represented by a different stakeholder, which is why stakeholder engagement is both important but also challenging.

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Approval for new EV chargers can require consent from several different stakeholders throughout this process.

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Clearly it's going to include developed developers and property owners, owners and managers, the utility as well.

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You may need to talk to your local government to get permits.

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You need to speak with an electrical contractor, obviously the homeowner or condo association if you have one, And then you'd be getting input from residents, you know, infrequent meeting schedules and permitting timelines and inspections and just bureaucratic hiccups and sometimes even just a few opposing individuals can cause significant delays and increase costs.

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So really, property owners, they have to select and negotiate a charge with a charging company in some cases as well, and that requires understanding diverse pricing and services.

14:02
So if you do decide to partner with the electoral contractor who's experiencing EV projects for multifamily dwellings, they may be able to provide a comprehensive solution, but it's still important to stay engaged and educated throughout the entire process to ensure you keep costs down and you stay on schedule and you create a successful project.

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So really that that kind of leads into the final and what some may consider one of the largest challenges or impediments to getting this conversation started for multifamilies.

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And that's parking.

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Most parking lots and garages were not built to provide electrical service, and in order to install charging in a parking space, it may take a considerable amount of work.

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And there's no way to know the extent of the electrical work necessary for a project until an electrician gets involved.

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Each building also has its own parking management system.

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So if you parking at your property to be assigned or first come first served, it could be bundled with rent or built separately and assigned parking even may not be near charging service.

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And if parking is not assigned, managers could be reluctant to dedicate spots for EV charge.

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So all of these factors can impact the design and management of charging at a particular building.

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And for many multifamily properties, it can represent one of the biggest barriers just to starting the project.

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So with that said, to overcome these challenges or at the very least, oops, sorry about that.

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So at the very least, to try and provide a road map for your charging journey, Dominion has a multifamily electric vehicle charging guide.

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And in that guide we outlined 6 steps for installing AV chargers on your property.

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And so the first step, picking up right where we left off with the parking challenge, requires you to tackle the parking challenge head on by deciding on the location for your station.

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When you're considering vehicle charging in a multifamily community, parking is the first thing you have to evaluate.

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And we know that parking management varies depending on the property and it can include on street garage, parking decks, parking lots, driveways, carports.

16:04
The list goes on and each scenario has a unique issues to be addressed when considering people charging.

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And at the end of the day you'll have the final say and where the charges are located.

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But we have included a few considerations that could be useful when navigating step one of this process.

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First, the the the question I hear probably the most frequently How many charges do I need?

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Many.

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Many owners, Managers, associations.

16:32
They're already on board with the EV transition.

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They've got their EV task force or subcommittee formed to lay out their properties, electrification strategy, and goals, and they're ready to electrify every every parking spot.

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And others have a, you know, a healthy amount of skepticism about EV adoption.

16:48
But they recognize there's a growing demand for charging and they want to meet the needs of current and future residents by putting in maybe two or four chargers and see what happens for the next few years.

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Both of these perspectives is are right and both have their advantages and disadvantages.

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If you completely electrify every parking spot, it could be a great idea.

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But the build out for that type of project, upgrading electrical capacity, upgrading utility infrastructure, potentially purchasing, managing and maintaining all of the EVSC or chargers, that's going to come with a huge price tag.

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And it may be that in 10 to 15 years most of your residents are driving E vs.

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But the typical lifespan of a chargers 10 years and currently EV penetration at multifamily properties is very very low.

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So oversizing a project now could result in a huge investment with low return and low utilization and on the other hand, undersizing a project the result in the failure to meet growing demand and it could impact user experience and result in more costly upgrades down the road.

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So a great a great way to get an idea of how to start sizing a project is to pull residents on your property to determine their level of interest.

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It's a great way to get a sense of how many Ev's are currently on the property, how many residents are interested in purchasing an EV perhaps in the next few years as their next vehicle.

18:08
And and we have a resource section at the end of this presentation.

18:11
When we send it out, you can reference it but it it includes a sample, just the sample letter that you can send out to the residents to try and get some input from them.

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But whether you use a pole like that or not a good rule of thumb when starting out is to install enough charging infrastructure to meet the needs of around 5% of your resident population.

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That's kind of the best industry best practice and it could vary.

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You know you could go higher if you want, but this tends to be the norm when it comes to multifamily and another good idea is to install expanded make ready infrastructure.

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So basically that just that EVSI infrastructure we talked about not the charger And what what's great about that is you know it's there and when demand grows you're able to easily grow with it and support future installations.

18:58
We also want to look at whether or not the charges will be exposed to the elements.

19:02
Outdoor parking will require weather resistant equipment and charging is perfectly capable of being outdoors in all types of weather conditions and without going, being harmed or anything But and that could reduce your material and construction costs because make ready processes.

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And, you know, open parking lots tend to be a little bit easier and straightforward.

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Whereas garage parking, it offers more protection from the elements and it could improve the longevity of your hardware.

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Less exposure to the elements, but it could increase overall project costs because the make ready process in a you know, a covered parking area can be a bit more complicated.

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So either way, this is an important consideration when you're looking at the cost of your projects.

19:47
And then finally, who has access to the chargers.

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Spaces that are accessible to the public will require additional rules to ensure safety because this will likely increase traffic to your site.

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It'll increase utilization and that can translate into greater revenue generation.

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But on the other hand, it could also result in more frequent maintenance.

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It could limit your chargers availability for residents as well.

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And then you can see that while if you restrict access to only residents and visitors, you can ensure greater availability and account to your residents, as well as accountability, the Chargers will be better maintained.

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But you could also run the risk of underutilization of your chargers, especially if your project, as we mentioned before, it's not sized appropriately.

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So these are some important considerations when you're trying to decide on your location, and it's probably one of the most crucial first steps in this process.

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The next step we have is to assess your electrical access, and this will be likely your first opportunity to engage with external stakeholders.

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You'll need to access.

20:47
You'll need access to a secure and safe source of electric power for vehicle charging, and as as we spoke about before, most multifamily dwellings may not have the existing capacity to meet the demand of running several chargers at the same time.

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So this is where you're going to want to reach out to utility and a trusted or trusted electrical contractor.

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Your utility can help by providing some information on your existing service capacity, some metering options, rate options, or what the rates are.

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While an electrician can evaluate the existing capacity of your electrical panels serving individual units and common areas.

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You'll find that depending on your existing capacity and and needs, they're really two main options for metering your charging stations and that includes common metering and dedicated metering.

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So I'll just briefly go through the two of those because I think they they really encapsulate what the options are.

21:40
The solution sets for multifamily charging.

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So for common area meeting, we're looking at a meter that measures the electricity usage in your common areas.

21:48
Straightforward.

21:49
This is your parking lots, your laundry rooms, pool areas, and it's important to note that these are the areas where property owners are paying the electricity bill.

21:58
So this is not individually metered.

22:00
It's what's a bill that's going straight to the property owner.

22:04
Whereas we have dedicated metering on the other hand, and that's where each resident's electricity is metered by a dedicated electric meter.

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So that's their individual meter.

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Often these meters are grouped together in one physical location to make the meter reading easier for, you know, us.

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But these are your individual meters.

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And this is what a lot of folks in multifamily especially are interested in, in trying to do is is get get these chargers individually metered there.

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There are important considerations for both types of metering.

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For common metering, it may be more costeffective to connect a charging station to a common area meter, such as in an open parking lot or visitor.

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Parking costs do tend to be a bit lower because the make ready process tends to be a bit easier and because the property owner or association they're able to decide how many charges they want, where they want to locate them because they're the ones who are receiving and paying for the bill.

22:57
But and property owners will own the charges and instance of common metering, and they'll be paying for that electricity that's being consumed by their residents or visitors.

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And only owning the station gives you control over access and pricing.

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It also carries the responsibility of management and maintenance of those chargers.

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And along the same lines, it may be difficult for you to determine electrical consumption for a single residence use of a charging station.

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And so it could be challenging to recover costs.

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And to be fair, this is where charger software can be extremely helpful.

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It gives you much more visibility into individual usage.

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And it is highly recommended that when looking at Level 2 charging that you look at network capabilities and you have the software features and options to be able to get that kind of a granular look at your data.

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It just it it can cost a little more.

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It's ultimately it's ultimately up to the property to determine how to allocate costs equitably across the resident population.

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But it as we've spoken to many multifamily owners and and homeowners associations it can be a challenge and it's something everyone's trying to kind of figure out what to do.

24:04
Want a final consideration for common area media area is that it can be a bit more flexible.

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It doesn't require assigned parking and this could be a good option for properties with first come first serve parking or for those with unit assigned or owned parking where you want to have like a an area that's dedicated for EV charging on the on the common meter.

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But then looking at the dedicated metering side, if you prefer to go this route there are a couple options.

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There's this option that's EV installed and so basically you install a minimum number of level 2 EV charging stations.

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The property owner would be the one installing all charging infrastructure, stations, meters and then the residents would pay for their electricity.

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And in this scenario the chargers are owned by the property and any electricity consumed by the residents is individually needed and billed to that resident.

24:57
And this allows for easy hands off billing for individual consumption and allows chargers to serve as an amenity that can live beyond the current resident and kind of outlive any resident turnover.

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But it does represent a higher upfront process as well and also ongoing expenses associated with managing and maintaining the chargers.

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And then there's also this EV ready component.

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And so it's not not going to be installing chargers, rather you're installing necessary electrical panel capacity and the associated make ready in meters.

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But then residents would be able to hire an electrician to come in and install their own charger, and so the resident would own that charger.

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They would be individually billed off of their individual meter and then if they moved out, they would take that charger with them.

25:44
This could be a good option for properties that are able to invest in future EV growth, but don't want to risk underutilization in the short term by putting in too many chargers that aren't going to be used.

25:57
So that brings us to the next step step through just selecting your charging equipment now multifamily properties, they typically install one of two types of chargers.

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We're looking at your level one which we talked about earlier and it it it has a much slower charge but it has a much lower price point.

26:17
We're looking at maybe around 300 to $1500 per station, but they can only charge it, you know roughly 5 miles of range per hour with with level one you'll be using an existing 120 Volt outlet and residents will have their own cord and connector that they'll use to plug into the to the outlet to charge.

26:36
In some cases I've seen multifamily owners, property managers procure charging cords and for general use.

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So maybe they rent them out, maybe they sell them or maybe they provided them out as an amenity for for future and current tenants.

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And so that's always something to consider too.

26:54
If level one is the way you want to go and you have existing outlets, or you just want to install outlets throughout your your parking structure.

27:04
Level 2.

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That's the most commonly used charger in apartment buildings, I mean.

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And the cost can really vary based on what you want.

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You can pay as little as $3500 or even up to $7500 for a level 2 charger and even beyond.

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And they can charge multiple vehicles and they can charge faster, up to 25 miles an hour for range on some of the better models.

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And they can also be networked and balance electrical loads.

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So you have a lot more flexibility and a lot more options if you decide to go to the Level 2 route.

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But there are some considerations that we wanted to make you aware of regarded data needs.

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You need to consider whether or not you need to track and report the usage data of your residents and visitors.

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If you if you think that's useful data to you, you definitely need to have a Level 2 station with networking capabilities that has that kind of granularity.

27:56
Otherwise you may just need to separately meter so that you don't have to worry about having that granularity and and you can just do a dedicated meter.

28:03
As we just had mentioned before.

28:06
You also want to consider cord management and this is something that's not really considered very

often, but it's important especially for multifamily units that don't have a lot of space or they have you know, unique parking situations that they may have to squeeze an EV parking spot into.

28:21
Depending on your location, you may need to opt for a longer cord than what comes stock with the charger, or you may decide that you want a system that completely hides the cord when it's not in use rather than when it simply just holds the cord snug next to the charger.

28:35
So there are options, and that's something you should be considering when you're looking at what you want on your facility.

28:41
You also can look at wall or pedestal mounted chargers and in many instances the location you choose may dictate how the charger will be mounted, but there are options for that.

28:50
And finally, something important to to think about is whether you want a single or a dual port charger.

28:56
So if left to the residents to purchase their own charger, they're going to purchase obviously a single port charger, but if the property owner is purchasing chargers to install, it could be much more costeffective to get a dual port charger that can serve multiple spots from a single unit.

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So there are tons.

29:15
I know these considerations here are are not exhausted.

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There are a lot of things to consider when you're looking into a charger.

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These are some of the very important ones, but it's it's a very important, it's a very important step to try and develop a consistent approach to how you you implement a charging strategy regarding what type of EVs that you're putting in the ground in your property.

29:38
Right.

29:38
So now we can move on to step four and once you've reached Step 4, you've really done a bulk of the heavy lifting and you're ready to prepare for your installation.

29:46

If you've decided to use existing outlets for your Level 1 charging, then you just need to confirm that you have existing electrical capacity and that the location of the outlets is in the safe, an accessible area.

29:58
You've you contact your electric utility to make sure that the existing utility infrastructure can serve the expected increase in load.

30:06
With level one, we really don't have a lot of concern, but it's always a good idea to contact us because we'll we're happy to help and we're happy to give you the information you need to make sure that you know everything's gonna work well when going this route.

30:19
Residents typically, as we mentioned before, have their own charging cords, but you could choose to purchase outlet compatible equipment for general use.

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That's not necessary as many vehicles come with a level 1 charging cord, but it's a it's something to consider.

30:38
If you if you want to do something like do something like this, you can incorporate it into your EV charging strategy.

30:43
If you decide to install a new station or outlet for level one outlet, new level one outlets, or level 2 stations, you'll need to confirm a few extra things.

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You'll need to definitely contact an electrician or contractor and work with them to develop an installation plan.

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That will include developing a site plan and contacting us or your electric utility.

31:05
You'll need to obtain necessary permits.

31:08
You have to ensure compliance with applicable codes like a DA, zoning and encroachment agreements.

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And after all that, you are ready to install your equipment.

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And it's important that when you are installing new stations or outlets, your electrician can be very helpful in coordinating with your stakeholders.

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That is such a crucial piece, but it is important that property owners carefully review all the plans that are put together, that you meet with stakeholders as needed and you provide all the final approvals and notify residents of any planned activity or scheduled construction and delivery.

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It makes the whole process smoother and more transparent and it really aids in a seamless, A seamless installation.

31:56
So moving on to Step 5, this step it's really just developed.

32:00
You've got your chargers in the ground.

32:02
Folks are hopefully using them a great best practice and why this is included.

32:07
After the construction is complete.

32:10
The next step is develop policies and etiquette guidelines for using your chargers.

32:15
You know, we we we take for granted when we hear, oh there's a charger we can just plug in and and that'll be that.

32:21
But you know, it's kind of a Wild West at this point, folks.

32:25
It's not, It's not as simple as going up to a gas station all the time, you know.

32:29
And there are a lot of considerations that you need to take into account in order to make sure that your, your residents are aware of what the protocol is and that you have the plans in place in case there are any issues that arise.

32:42
And so we've included some key considerations here.

32:44
This again is not exhaustive, but I think these are some of the more important ones.

32:49
So you need to ask who Who's going to have access to your chargers?

32:53
Are the charging stations available for residents to use only?

32:56
Can visitors use them?

32:57
Are they going to be open to the public?

33:01
And then you want to see what if non EV drivers are going to use this space?

33:04
Are you going to install any kind of signage to indicate that parking is EV only?

33:09
And what are the enforcement mechanisms going to be if non EV drivers parked in that space?

33:14
What?

33:14
What's the your your action plan for dealing with that?

33:18
And then you would look at parking duration.

33:20
Will there be time limits in place to encourage people to move their vehicles once they're charging is complete?

33:26
How are you?

33:26
How will you deal with drivers who overstay this time limit?

33:29
Will there be a fee imposed?

33:31
Will there be something else imposed?

33:34
And then you want to ask, Are drivers allowed to unplug other vehicles?

33:37
And I know this seems strange, but this is a question that comes up a lot and generally this practice is frowned upon.

33:43
But in scenarios where a single port could serve multiple spots, I drivers could be inclined to unplug of course, from a vehicle to top up their battery property.

33:53
Owners and managers need to be very clear and communicate their expectations around practices like this because that's it, it.

34:00
It will cause a point of contention and IT folks may mean well in doing it, but it could result in in issues and so it's good to get in front of stuff like that.

34:10
And the final consideration we have here is how are residents going to be kept aware of the status of the charging stations?

34:16
If these are starting charging stations that are being managed by the property owners, how are you communicating to them?

34:23
Will you be sending them notifications if the stations are down?

34:27
Things along those lines and there there are using the software that will be on Level 2 chargers and and other various applications.

34:34
There are options for this that can be pretty seamless.

34:40
And then moving on to the final step we have promote your stations and educate your residence.

34:47
There's really no limit to how you can go about completing this step, but we do have a few ideas that that may help you kind of move things along.

34:54

You want to advertise this as a new amenity to existing and future residents through your existing outreach and promotion channels.

35:02
There was a survey last year that found that 47% of millennials and 41% of Gen.

35:08
Zers want to purchase an Etheus or Next vehicle, and they're more likely to choose your community if you offer charging, so it's something that you want to promote.

35:18
You can use paid search engines or paid searches to target EV drivers or future EV drivers who are looking for apartments or condos, or communities where charging infrastructure is already established.

35:30
And then with smart charging you can use your data to determine what your emission savings are, and you can boost your brand sustainability profile by publishing that data on your website or in your marketing materials.

35:42
Some other options you can Once your charges are in the ground to promote them, you can give live demonstrations on how to use those chargers.

35:49
And you can give out how to documentation.

35:53
Definitely important.

35:55
Kind of coming off of step five.

35:57
Once you have your charging etiquette or ground rules, you publish it online and in common spaces.

36:02
You make it very available so that everyone's aware of it.

36:05
And also, if you if you decide to charge for this amenity, publish your pricing, make that transparent as well, people will appreciate it and it'll be much more likely to use it.

36:16
Finally, you could add your stations to Plugshare if that's something you would be interested in doing.

36:20
And for those who aren't familiar with Plugshare, it's just it's a free app for EV drivers.

36:25
It allows users to find charging stations, leave reviews, and connect with other plugin vehicle owners.

36:30
It's important to note that with Plugshare, likely your your chargers will be available to the public, and so that's something to consider.

36:38
If you're not opening your chargers to the public, if you don't wanna be, you may not be interested in Plugshare.

36:45
So with all of that said, we want to let you know that Dominion is here to help with your charging journey.

36:53
We you are all on this webinar today because we recently launched our new programs that are directly targeting and providing incentives for multifamily charging infrastructure.

37:04
But our experience it predates these programs.

37:07
We we've been very steeped in the EV industry and are in many instances driving the EV transition in the state of Virginia.

37:16
Our team, our electrification team is made-up of experts who are more than happy to provide education and guidance for EV charging for all of our customers who are interested in pursuing our programs.

37:27
Many of you may know that we recently closed out our smart charging infrastructure program where we offered rebates for EV charging, which was a huge success.

37:37
But we also have one of the largest workplace charging programs in the country with over 300 charging stations throughout Dominion offices and facilities throughout the state.

37:46
And we have the nation's largest electric school bus program all all with fast charging.

37:52

So we're very steep and EV culture and the EV space and so we we just want to communicate to you that we're as your utility, we're here, we're listening and we're ready to help as we can.

38:03
That said, we do have our new Level 2 charging program that I I oversee.

38:09
I know a lot of information has been sent out already and I'm happy to provide more information after this call and in the future as we start to reach out to you individually as you express interest.

38:21
But our Level 2 program is designed to provide incentives specifically for multifamily to help reduce the costs associated with that make ready work.

38:30
And it's flexible in that, you know, you get that lot of say over the type of chargers you have, how many chargers you have or if you want to buy them through us.

38:40
It really we work with you to meet your needs.

38:43
But we're also willing to and happy just to work with you to help you achieve your goals separate of any programs that we have.

38:49
Because from our perspective, we just want to help customers transition if they feel like Ev's are the right fit for them whether they use our programs or not.

38:58
We want to make it known that we are, we are here, we're listening and we're ready to help.

39:05
So with that said, I think we can open up for for Q&A.

39:10
I know I'm I'm sure there are a lot of questions because even though this was a very compacted dense presentation with a lot of information it's it's impossible to to hit all the points in just a 45 minute session.

39:23
So I'll, I'll, I can turn things back over to Emma if she has some questions that have come in.

39:29
I know I've heard a lot of beeps in the chat, so happy to start answering any questions or I can start making up some questions if there anything that needs to be addressed.

39:47
OK.

39:48
There were two questions in the chat, 2 clarifying questions.

39:51
I'll read them out loud.

39:53
Ron asked if it was 5% of Target residents or of EPS.

39:58
That's 5% of total residents.

40:03
And then Ron asked, is there a list of permits that are required?

40:08
You will likely need an electrical permit, but other permits are locality specific, so that'll vary based on where you are.

40:15
Let's see.

40:17
Somebody asked what would be a typical business plan to cover the $7000 installation costs.

40:25
Hey Rick, this is Kate.

40:26
I work with Steven on the EB programs at Dominion.

40:29
This is a great question and we get this question a lot.

40:34
So as a property manager or owner or HOA, if you're going to put in something that costs money, you might want to recover the cost from your tenants or residence.

40:49
So one type of business plan is you put it in to get you know high caliber long staying tenants which has financial benefits.

41:01
So that that's one option.

41:03
The other option is if there's a installation cost, you can add it to like the HOA fee that everyone pays or you could have a fee that each of the EV drivers pay.

41:17
So it would be something that the folks that use the chargers pay, and you can do that the way that you would build them for if you had to do any sort of like improvement, like whether you were doing a capital campaign or to replace a roof or for, you know, the extra costs of lawn care, things like that.

41:38
Or you could do it where these Chargers are intelligent, they are smart and networked.

41:44
And so you can have it so that you charge a fee to the tenants that use the chargers to help recover that cost.

41:53
So I'm gonna attempt to take you off mute Rick and hope.

41:57
Give me a second.

41:58
Let me see if I can figure out how to do it and see if I answered your question.

42:02
Let's try here.

42:10
Hi, this is Jess.

42:12
I'm on the board of replace, a 1700 unit housing complex and Roslyn.

42:24
I guess the issue is we've got the place for up to 10 chargers, but the electrical is like 200 meters away and we're grandfathered in because the project is like 50 or 70 years old.

42:45
Have you guys been faced with having to upgrade the electrical, the entire complex just for an EV charging station Over yes, so two.

43:02
I think there were two points to your question.

43:03
The first one is your electrical is is quite a good distance away.

43:07
SO1 solution there is having a new electric service that we would bring in with a new panel so that we could bring that in closer to where those 10 parking spots are that you mentioned.

43:20
And sometimes that's cheaper because you have you know less of a conduit and and cable run and trenching and things like that.

43:27
So the install costs could be cheaper.

43:29
The other thing about needing an upgrade, it is common to need an electrical upgrade.

43:36
So you can do that behind your existing service, but in the example that you mentioned, it might be easier to bring in a new service and you would upgrade just that service for the Ed charging.

43:47
But like Steven mentioned, a lot of this is very site specific.

43:51
So you would want to contact an electrical contractor to look at what capacity you do have.

43:56
Can you serve five of those 10 spaces already or or can you serve zero of them?

44:02
So you'll want to see what capacity you do have and then for what you don't have, electrical contractors know how to contact Dominion and find out what upgrades you would need.

44:11
And we certainly can do that through the program that Steven mentioned.

44:14
But you can also do it through your electrician or contractor.

44:19
And last question, you mentioned the life of a typical charging station is around 10 years.

44:26
How where do you see payback being completed in a typical installation, two years, five years, eight years.

44:41
We we have a model where we do model payback and it depends on certainly how expensive the project is and then it also depends on what you're charging the folks to use it.

44:53
So are you offering it for free as an amenity and your payback is that you're getting, you know, longer term tenants, so your tenant turnover isn't as much or are you charging your guests, excuse me, or are you charging your tenants and residents to use it.

45:08
So you'll wanna look at, you know, the cost to install and operate the stations.

45:13
And then if you want to try to get a payback.

45:16
You would look at how much you would charge the folks to use it.

45:18
And in Virginia you the law says that you can charge them whatever you want.

45:25
You can make it free.

45:26
You can charge them a dollar an hour.

45:28
You can charge them per kWh.

45:30
You can charge them a different color if their car is green versus blue.

45:34
You can charge the public but not charge residents.

45:37
So you you as the the the person responsible for the electric bill have have the authority to do that and just to add to that Kate.

45:48
Hi Rick this is Steven.

45:49
The the the expected lifespan of a charger is yes around 10 years.

45:55
That EVSI component that make ready component going from your your your your meter up to the charger.

46:03
The lifespan on that is much longer.

46:05
It it's gonna be, I think what Kate, 30 years.

46:09
So, you know, it's important to understand what the different pieces are and what those costs associated with each are so that you can make an informed decision.

46:20
Gotcha.

46:20
Thanks a lot.

46:21
And this has been informative.

46:22
Thank you.

46:24
Good.

46:26
I saw one other hand.

46:27
Did he go away or.

46:29
Ohh.

46:30
Joy.

46:30
Okay, Hold on, joy.

46:31
Let me attempt to, while you're looking at that, I I do see a question in the chat about expanding on any monetary incentives.

46:39
And you know this is a complicated piece because there are, there are, there's a lot out there.

46:44
There are federal incentives for purchases of EVs, purchases of EVSC or the Chargers as well.

46:51
And then in many cases there could be there, well, there definitely are utility incentives because we put them out.

46:57
I can speak to those.

46:59
I may not be as as well versed in some of the federal ones.

47:02
But regarding our programs, we really is there another federal state?

47:09
Well, regarding our programs, our incentives, basically we're looking at incentivizing what we were just talking about with Rick, that make ready piece because that could be a bulk of your costs associated with multifamily.

47:21
So if you are to participate in our program and your project is deemed eligible, we would come in with our Dominion approved contractor to take care of that make ready work and Dominion would provide a 50% upfront incentive.

47:36
So you would only be responsible for 50% of the cost of the make ready.

47:40
Then there are other options regarding the the charging component, but one of the benefits is that there are no upfront costs associated with this program.

47:48
All fees are charged monthly on your electric bill over a 10 year.

47:54
It's just important to note that our program eligibility is only for common metering.

47:59
So that's going to be a meter and electricity bill paid by the property owner, not by individual tenants for our program.

48:06
Hey, Steven, can you go back to your slide that shows the EBSI, the infrastructure.

48:14
Yeah, right.

48:18
Let's cover, try to cover a couple of the cost questions that we got in the chat, Okay.

48:22
So on the far left side, this Dominion Energy utility infrastructure up to the electric meter.

48:27
This is if you do need an upgrade to your electric infrastructure or you need to bring in a new service, this is what Dominions bread and butter is.

48:35
And the way that we do this is we come up with how much it costs to bring in this new service to you.

48:41
So just for easy math, say it costs $10,000, we are going to look at how much additional electricity you're going to use because we had to bring in that service.

48:52
So if you're going to use additional electricity, you're going to be giving us additional revenue.

48:58
So we look at how much additional revenue you're going to be giving us and we credit that towards the cost of that new install.

49:05
So that $10,000 that it's going to cost, it'll be less than that.

49:11
So if you have a very complex job, there might be some utility infrastructure costs or if you're putting in a lot of charging and have no electric cars to use it, that there could be some utility upgrade costs.

49:24

But where we've found is the majority of the costs are on the customer side of the meter, so on the right side of your screen, your make ready and your charger.

49:34
So as Steven mentioned, the program that Dominion has, the incentives we provide are on this area that says make ready, we call it EV supply infrastructure or making it ready for the charger.

49:45
And when we send this out, we can send you a graphic that shows where those incentives are and then we'll also send you a link to what the federal incentives are.

49:54
The federal incentives are our location specific.

49:59
So if we told you what they were it wouldn't apply to everyone on the call because their location specific but we'll send you that information too.

50:11
And then the I I'll, I'll plead the I'm not an attorney to to answer your liability insurance questions and we'll tell you that I I recommend you you contact an expert because I don't want to tell you wrong.

50:25
Yes this is being recorded and distributed we will send it out and then I Joy was I able to bring you off mute.

50:32
Yes.

50:33
Thank you.

50:35
This is so incredibly helpful.

50:37
I can't tell you how much I appreciate you guys scheduling this that I can.

50:41
I live in Farlington, which is the historic district in Arlington County and there's a lot of appetite to install these in our housing associations.

50:53
There have been their installations already in other associations within Farlington.

50:59
There are about a dozen different associations within the within the district and I think we're in our

particular association there about 300 units of the 3500 that are in Farlington generally and we've identified a location we will likely need the the make ready infrastructure an additional meter attached to our utility office which is adjacent to our community pool.

51:27
So we've identified those steps so far.

51:31
The other question I think that we'll have that our board will have is you know how what your guys's lead time is to get us to make ready and those incentives that you mentioned which sound pretty generous with Dominion Energy and the other federal and state incentives too.

51:53
So it would be helpful if you were able to provide other financial stats or data that will help inform the decision to our Board.

52:04
Again the the residents are very eager, but the board is reluctant based on cost and all of the inputs required.

52:12
So my question is what the lead time is once we've, you know the board has approved the proposal, we're ready to install the additional meter and the infrastructure.

52:23
And then if you guys have particular contractors or electricians or suppliers EV suppliers that you prefer that you recommend that we work with, yes, just because we're a little bit close on time.

52:42
Joy, I think I have your contact information from our interest form.

52:45
We'll call you to answer your site specific questions.

52:48
But yes, we will send that information out about our contractors, about the incentives and about the types of chargers that we work with.

52:55
You're not required to work with our chargers.

52:57
You have a couple different options, but we have some that we'll work with.

53:01
So we will send that out to you.

53:02
And in terms of lead time, the longest lead time is the decision making on the customer side.

53:08
We for projects of this size, we are not seeing the supply chain constraints that you've been hearing about in the news.

53:15
If that gives you any comfort, that's great.

53:18
Yeah, that's helpful and thank you for this.

53:21
Again, I I look forward to hearing back from you about you know the other details and then hopefully getting this moving.

53:31
Yeah.

53:31
And just to thank you, just.

53:32
Yeah, just to punctuate that, I just wanted to say when we send the slide deck out to everyone following the call, there will be an additional slide at the end with resources linked and much of joy what you just asked about will be included there.

53:47
So I just wanna let you know that if you don't see it in the body text of an e-mail that I send out, it will be in the in the selected.

53:55
That's great.

53:55
Derek.

53:56
Derek, I attempted to make it so that you can unmute yourself.

53:59
Did it work?

54:04
I think so.

54:06
OK.

54:09
Yeah, I'm in a condo unit in Norfolk, VA with underground parking and we have to well, amongst other things, we're facing possible flooding issues although.

54:24
But anyway, one of the possibilities we were tossing around was our building has, how should I call it just three separate metering panels for the whole facility.

54:42
And we understand that you know there we're probably close to capacity.

54:49
So I'm assuming that each panel kind of has a a master breaker that kind of defines what the service coming into the building is anyway.

55:01
Has has anyone kind of taken the approach that maybe just tap one or two 220 Volt outlets offlets each of these call them panel rooms and so to speak have a shared charger kind of like on a a Dolly or a cart that with a long you know SIM in a long extension cord you can sort of plug into 220 Volt and hopefully get it kind of near your car Is is that an approach that people have used.

55:42
There are mobile chargers they're very expensive but there are mobile chargers out there we we have I have not seen it other than that conferences.

55:56
So I I haven't seen it be a really common really common installation.

56:05
But but I think it has a great use case and if they can can maybe get to scale I think mobile chargers could be a good solution for multifamily locations.

56:15
Yeah, I mean, we're we're facing, you know, assigned parking spaces and who's going to be willing to give up theirs.

56:22
And of course, you want the supply electricity to be somewhat close to a panel unless you want anyway, I can look into mobile chargers a little bit more.

56:38
I guess there's length considerations for extension cords, so to speak, especially at 240 volts.

56:45
Yeah, you don't wanna have voltage drops and and you don't want folks tripping over cords or things like that.

56:50
So there's always those concerns as well.

56:52
All right.

56:53
Thank you, Okay.

56:58
Let's see what other do we get other questions that I missed, Emma, there's one here at the bottom conferences.

57:07
Rick, I will check and see what conferences are available and I will.

57:10
I'm, I'm happy to send them to you.

57:12
I'd love to see a a familiar Virginia face at A at a conference.

57:16
It's usually a lot of West Coast folks.

57:17
So I I'm happy to send you some great.

57:21
What else?

57:25
I think that's it for the chat.

57:27
Okay.

57:28
We're only slightly over time.

57:29
That's pretty good folks for.

57:30
Thank you for all for joining us during your lunch time.

57:34
I'll do one last call for questions.

57:36
And then Steven, do you mind wrapping us up?

57:41
Yeah, absolutely.

57:42
If there are no more questions, I want to thank everyone for joining today.

57:48
I really do hope that this was helpful and as we had mentioned, we'll be, we've recorded this webinar and we'll be sharing it with you all in the coming week.

57:58
We'll be adding some resources that we've already put together.

58:01
But also based on the questions that you've all been asking, we'll add some additional resources around around federal, state and utility incentives and then and some others based on some notes that I've taken.

58:13
But we look forward to working with you all and and the follow up e-mail that I sent to everyone, we'll have some information regarding next steps.

58:22
If you're ready to learn more about the program and start a conversation with us or if you have an idea of what you want to do on your property, we're ready to help.

58:31
So we look forward to chatting with you all.

58:33
Thank you again for joining and I hope you have a great rest of the week.

58:37
With that we can go ahead and and stop recording and then thanks.

58:41
Thanks all.

58:42
Great Steven.

58:42
I'll stop recording and then as soon as I have confirmation the recording saved, I will end the call.

58:47
Perfect.

58:48
Ohh I stopped it.

58:49
Ohh perfect.