

COUNCIL OF THE CITY OF PHILADELPHIA
JOINT COMMITTEES ON THE ENVIRONMENT AND GLOBAL
OPPORTUNITIES AND THE CREATIVE/INNOVATIVE ECONOMY

Room 400, City Hall
Philadelphia, Pennsylvania
Friday, April 26, 2024
3:00 p.m.

PRESENT:

COUNCILMEMBER NINA AHMAD
COUNCILMEMBER CINDY BASS
COUNCILMEMBER MICHAEL DRISCOLL
COUNCILMEMBER JAMIE GAUTHIER
COUNCILMEMBER JIM HARRITY
COUNCILMEMBER NICOLAS O'ROURKE
COUNCILMEMBER MARK SQUILLA
RESOLUTION 240172
- - -

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2

3 COUNCILMEMBER GAUTHIER: Good

4

5 afternoon, everyone. I now note that the hour

6

7 has come, and this hearing is called to order.

8

9 This is the public hearing of the Joint City

10

11 Council Committees on The Environment & Global

12

13 Opportunities and the Creative/Innovative

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15 Economy. The purpose of this public hearing is

16

17 to hear testimony on Resolution No. 240172. Ms.

18

19 Jones, would you please call the roll?

20

21 THE CLERK: Councilmember Ahmad.

22

23 COUNCILMEMBER AHMAD: Present.

24

25 THE CLERK: Councilmember Harrity.

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27 COUNCILMEMBER HARRITY: Present.

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29 THE CLERK: Councilmember Bass.

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31 COUNCILMEMBER BASS: Present.

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33 THE CLERK: Councilmember O'Rourke.

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35 COUNCILMEMBER O'ROURKE: Present.

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37 THE CLERK: And Councilmember Gauthier.

38

39 COUNCILMEMBER GAUTHIER: Present.

40

41 Thank you, Ms. Jones. Joining us are all of the

42

43 people just, just mentioned. Thank you. I know

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45 for the record that a quorum of this committee is

46

47 present, and the hearing is called to order. At

48

49 this point, I will pitch it to the chair of the

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2 Creative and Innovative Economy Committee for any
3 opening remarks.

4 COUNCILMEMBER AHMAD: Chair. You're
5 the chair.

6 COUNCILMEMBER O'ROURKE: I will pass it
7 over to the vice chair for any opening remarks.

8 COUNCILMEMBER AHMAD: Thank you so
9 much. First of all I --

10 UNIDENTIFIED SPEAKER: Is your mic on?

11 COUNCILMEMBER AHMAD: Yeah. I ask --

12 UNIDENTIFIED SPEAKER: (indiscernible)
13 microphone.

14 COUNCILMEMBER AHMAD: I did. Okay.

15 Good afternoon, everyone. Thank you for being
16 here at 3 o'clock on Friday. And I've already
17 profusely apologized to my colleagues that I know
18 this is a lot of late afternoon intellectual
19 conversations, and I appreciate that they're here
20 and appreciate all of you for caring enough about
21 this issue. Today we are talking about, as
22 Council Chair Gauthier just said, it is a joint
23 hearing regarding the reliability and servicing
24 of publicly accessible electric vehicle charging
25 stations in the city of Philadelphia. I just

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2 want to acknowledge the presence of my colleague,
3 my -- Councilmember Driscoll is here.

4 And so the reason we are here is
5 climate change is -- we are in a crisis around
6 climate. And in order for us to address this, we
7 have a 2050 plan for our carbon emission. We are
8 a car-centric country, we are a car-centric city.
9 Much as we want to make sure people are walking
10 and biking, we are going to drive.

11 And to that end, we might as well drive
12 in things that are not polluting our environment.
13 And we have that option. We have EV cars, and we
14 have a great initiative out of the federal
15 government to really drive us. They have given
16 us rebates on buying the cars, they are pumping a
17 lot of resources into our charging infrastructure
18 and just promoting that we move in that
19 direction.

20 I just want to give you context of, I'm
21 someone who comes -- I'm an immigrant from a
22 small country called Bangladesh. And the reason
23 why this is so critical is because it's very,
24 very real to me. As we speak today, sitting
25 here, there are parts of this low-lying country

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2 that is going under. The sea level is rising,

3 and people are losing land where they live on,

4 where they farm on, and they're literally

5 becoming, you know, climate refugees.

6 And so we have a responsibility in this

7 first world that we live in, that has

8 participated and contributed to this climate

9 crisis in a great way. We have a responsibility

10 to do something about that, and we can, we have

11 the tools to do that.

12 So that's the frame of why it's so --

13 why is this so emerged -- such an emergent issue

14 that we must get going on this. And I know our

15 Council here is very committed to making progress

16 on this matter, which is why we have Councilman

17 Squilla here, too, this afternoon. So we have

18 invited a lot of folks to testify, and we are

19 going to hear in different segments, but one of

20 the reasons that is also very important is that

21 we are seeing, while EVs are being, you know,

22 promoted, the use of EVs are getting reduced

23 because the user experience is not good. And by

24 that, I mean people don't feel they can rely on

25 making sure their cars are -- they're going to be

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2 able to charge their cars, that they're going to
3 be able to go from A to B, and they're going to
4 be able to participate on the roads in a way that
5 makes them safe.

6 So when we think about user experience,
7 that's what's going to drive making EVs an
8 everyday thing in, in this country. And, you
9 know, the issue around putting the cart before
10 the horse is we're putting a lot of, you know,
11 money down this, this way, but we're not looking
12 at the details. The devil is in the details.

13 So I, full disclosure, have a EV, a
14 fully electric vehicle, and I don't drive it
15 because I'm nervous about where I'm going to
16 charge it. That I'm going to pull up to a, a
17 place where there's supposed to be five chargers,
18 only one is working, and there's a long line.
19 We've been in places where suddenly something
20 goes wrong and there's no way to turn. You just
21 have somebody to call online, and they will call
22 -- ping somebody, and they will ping somebody,
23 but no one shows up to service that, that
24 charging station. So it's a reality. And we
25 have seen that Ford actually has cut back on

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2 their production of EVs. They're going the way
3 of hybrids. That's the wrong direction. We're
4 moving in the wrong direction.

5 So here in Philadelphia, it would be
6 great if we were the premier city in the country
7 that solve this issue, that we could show that we
8 can reach our 2050 goals and that we can do that
9 by really making sure we all participate in this
10 transformation and have a reliable charging
11 infrastructure that people can depend on. And
12 that's why we're having this hearing. So if
13 there's -- I'll pass it back to our chair here
14 for any further comments. Oh, sorry. One other
15 thing I wanted --

16 COUNCILMEMBER GAUTHIER: Sure.

17 COUNCILMEMBER AHMAD: -- to underscore.

18 This is not just about the environment. This is
19 also about workforce development. Because what
20 we are going to discuss today is that not only do
21 we have to know how to install the charging
22 units, we also know -- need to know how to
23 maintain and service them. Right now we have
24 investment in how to learn how to, you know,
25 install charging stations, but we haven't done

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2 the servicing and maintenance part. That's a
3 whole job category.

4 I can see, as a small business owner
5 myself, I can see this can be a real opportunity
6 for small business to --businesses to thrive,
7 work as a third party to the companies that
8 install the charging stations, work with them to
9 be that mobile unit. Maybe we have, you know,
10 within a 10-minute radius, we have a mobile unit
11 that responds as soon as there's a problem in a
12 charging station.

13 This -- you know, we have a great
14 union, IBEW, who has been actually training
15 people. We just -- they just got a grant that is
16 for training people to learn how to do the
17 installation. We can -- those are the questions
18 we want to ask them, what will it take to learn
19 how to maintain them and how do we get a
20 workforce ready in -- those people who would be
21 interested in doing that and then help them
22 become a business, if that is the path we'll go
23 for. But this is all about hearing today --

24 COUNCILMEMBER GAUTHIER: Tell us.

25 COUNCILMEMBER AHMAD: -- what the

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2 status is, what the projection is, and how do we

3 get there. So thank you, Council Chair. I mean

4 --

5 COUNCILMEMBER GAUTHIER: Thank you.

6 COUNCILMEMBER AHMAD: -- Committee

7 Chair.

8 COUNCILMEMBER GAUTHIER: Thank you so

9 much, Councilmember. And I want to note for the

10 record that Councilmember Mike Driscoll is

11 present, as well as Councilmember Mark Squilla.

12 And I'll pass it on to Councilmember Bass for

13 opening comments.

14 COUNCILMEMBER BASS: Thank you. I, I

15 just wanted to take a moment and thank the

16 sponsor of the resolution to have a conversation

17 on this very, very, very important conversation.

18 It's absolutely clear that the direction that

19 we're in, that we're heading in is not enough.

20 We're not doing nearly what we need to do and

21 that, you know, we, we really are in trouble.

22 And, you know, for what we can do as

23 the city to be a model on a nationwide basis, I

24 think that that is what we really need to dig

25 deep and focus in on because we really have to

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2 just change the way we live. There's no question
3 about it.

4 I remember in 2020 when the pandemic
5 hit, and I had been in Ocean City, Maryland, with
6 my family. And one of the things that I noticed
7 that summer is that the water, and we go there on
8 a regular basis, but the water, which was
9 usually, you know, like shore water, you know,
10 kind of brown, was suddenly, you know, like it
11 looked a little more to the, you know, like
12 green. Like, you know, more desirable for you to
13 want to touch and to get into, and that was
14 because there was less pollution. There was less
15 pollution. Things slowed down.

16 And, you know, listen, I understand
17 that we are a culture of folks who are on the go
18 go go constantly, but there's a lesson to be
19 learned about slowing down or changing the
20 direction of the way that we actually operate.
21 So I'm unable able to stay for the hearing, but
22 I'm really looking forward to the end results and
23 putting together some legislation to make our
24 laws here in the city of Philadelphia much
25 stronger and the services that we offer so that

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2 charging is much more readily accessible here in

3 the city of Philadelphia. You know, I'm all in.

4 I'm all for it. So I'm looking forward to

5 working with this committee on those issues. And

6 I'll -- I thank you for your time. Thank you.

7 COUNCILMEMBER GAUTHIER: Thank you,

8 Councilmember Bass. And I want to add my thanks

9 to Councilmember Ahmad for sponsoring the

10 legislation for this hearing. You know, I think

11 this is an incredibly important topic --

12 COUNCILMEMBER BASS: Yes.

13 COUNCILMEMBER GAUTHIER: -- not just in

14 regards to the city helping residents to, you

15 know, you know, to more easily purchase EV

16 vehicles or EVs and, and be able to access

17 charging stations, but also for the city to be a

18 model through --

19 COUNCILMEMBER AHMAD: Yeah.

20 COUNCILMEMBER GAUTHIER: -- our own

21 behavior.

22 COUNCILMEMBER AHMAD: Yes.

23 COUNCILMEMBER GAUTHIER: I'll tell you

24 a story, and that's, you know, during the FY 22

25 budget year, I was pushing my JUSTSERVICESPHL

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2 campaign supported by a majority of council. And
3 the idea of the campaign was to improve quality
4 of life services and to direct them specifically
5 towards the blocks most struggling with gun
6 violence.

7 And one of the areas that we were
8 focused on was increasing the capacity of L&I to
9 be able to handle blighted properties and
10 nuisance businesses that was -- that were drawing
11 gun violence. And we heard from L&I that they
12 were having a really hard time retaining field
13 inspectors.

14 And so we were thinking through what we
15 could do to make this job more attractive. And
16 what we heard was that one of the reasons that
17 the job is unattractive is that they have to use
18 their personal vehicles to do a very unpleasant
19 job. And that that was a drawback for many
20 people. And so that budget year, we winded up
21 winning, I think, \$3.1 million for all of the
22 field inspectors to get electric vehicles, city
23 vehicles, and we were very excited about that.
24 But we later came to learn that even though we
25 had purchased these amazing EVs, there was

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2 nowhere for them to be charged. So not only do

3 we not have enough public charging stations, so

4 we don't have municipal -- enough municipal --

5 COUNCILMEMBER AHMAD: Parks.

6 COUNCILMEMBER GAUTHIER: -- facilities

7 that offer charging stations for the electric

8 vehicles that we're buying as a city. And so we

9 had our field inspectors trying to do their work,

10 but also competing with residents to find and use

11 public charging stations and waiting in very long

12 lines.

13 COUNCILMEMBER AHMAD: Lines. Yeah.

14 COUNCILMEMBER GAUTHIER: And so I think

15 we have a lot of work to do as a city for our

16 residents, but we also have a lot to -- of work

17 to do to be a good model for how we combat, you

18 know, climate change and expand even our

19 employees' access to charging stations.

20 COUNCILMEMBER AHMAD: Absolutely.

21 COUNCILMEMBER GAUTHIER: So thank you,

22 thank you, thank you, for the conversation. And

23 with that, Ms. Jones, will you now read the title

24 of the resolution?

25 THE CLERK: Resolution 240172,

1 4/26/24 - JOINT - RESOLUTION NO. 240172.
2 authorizing the committees on the Environment &
3 Global Opportunities and The Creative/Innovative
4 Economy to hold joint hearings regarding the
5 reliability and servicing of publicly accessible
6 electric vehicle charging stations in the city of
7 Philadelphia.

8 COUNCILMEMBER GAUTHIER: The clerk will
9 please call the first panel of witnesses to
10 testify on the resolution.

11 THE CLERK: The first panel includes
12 Anna Kelly, senior policy advisor for EV and
13 parking from the Office of Transportation
14 Infrastructure & Sustainability, as well as
15 Christopher Puchalsky, PhD, director of policy
16 and strategic initiatives from the Office of
17 Transportation Infrastructure & Sustainability,
18 and Lily Reynolds, director of federal
19 infrastructure strategy from the Office of
20 Transportation Infrastructure & Sustainability,
21 who are available for questions.

22 MS. KELLY: Okay.

23 COUNCILMEMBER GAUTHIER: Please state
24 your name for the record and proceed with your
25 testimony.

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2 MS. KELLY: Good afternoon, Chairperson
3 Gauthier, Chairperson O'Rourke, and members of
4 the committees on the Environment and on Global
5 Opportunities and the Creative and Innovative
6 Economy.

7 My name is Anna Kelly and I'm the
8 senior policy advisor for electric vehicles and
9 parking with the Office of Transportation and
10 Infrastructure Systems, in the Office of
11 Multimodal Planning. I'm here today with my
12 colleague, Christopher Puchalsky, director of
13 policy and strategic initiatives with OTIS.

14 Thank you for the opportunity to appear
15 before you today to testify on Resolution No.
16 240172, introduced by Councilmember Ahmad
17 regarding publicly available electric vehicle
18 infrastructure.

19 This is an essential moment to ensure
20 an equitable EV transition in the city which can
21 propel us towards a cleaner and greener
22 Philadelphia with economic opportunity for all.
23 EVs are a key tool in fighting climate change as
24 they produce less than a quarter of the
25 greenhouse gas emissions per mile as compared to

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2 a gas vehicle. Additionally, the development of
3 a network of charging stations can create high
4 quality jobs for Philadelphians through the
5 installation, operations, and maintenance of this
6 green infrastructure.

7 I want to start with some statistics on
8 electric vehicles in Philadelphia and the
9 infrastructure that supports them. So currently,
10 EVs account for about 1.3 percent of all
11 passenger vehicles registered in Philadelphia.
12 Since PennDOT's last count in September, there
13 are about 1000 additional EVs registered in the
14 city. For reference, nationwide registrations
15 are also around 1 percent, but the Biden
16 administration has set a goal of having 50
17 percent of all new vehicle sales be electric by
18 2030.

19 EV registration percentages have
20 already -- are already much higher in some early
21 adoption cities like San Francisco and Boston.
22 Studies have shown that one of the biggest
23 barriers to EV uptake is the availability and
24 perceived availability of charging
25 infrastructure. Many Philadelphians live in

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2 multifamily housing developments or row homes
3 that do not have garages or parking spaces to
4 support residential charging. This means that
5 there's an increased need for publicly available
6 charging infrastructure, and acting now to expand
7 this infrastructure can ensure equitable access
8 to charging in the future, rather than just
9 access for areas that the private sector chooses
10 to support.

11 There are two types of chargers that
12 are typically used for public charging
13 infrastructure, Level 2 chargers, which can fully
14 charge a vehicle within 4 to 10 hours, and direct
15 current fast chargers, which are sometimes called
16 Level 3 chargers, which fully charge vehicles
17 within 20 minutes to an hour.

18 Currently, there are 330 Level 2 and
19 109 Level 3 public charging stations in the city.
20 I'll also note that most chargers are
21 concentrated around Center City, leaving large
22 gaps in other sections of the city. According to
23 projections generated through tools from the US
24 Department of Energy, to support a scenario in
25 which half of the public -- of the passenger

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2 vehicles in the region are EVs, Philadelphia will
3 need around 24,000 public Level 2 charging ports
4 and almost 1500 Level 3 charging ports to support
5 public charging needs.

6 There have been past efforts to provide
7 EV charging throughout the city. In 2012,
8 legislation was passed authorizing a program to
9 allow private citizens to install EV charging
10 stations curbside in front of their homes,
11 reserving that parking space for charging their
12 vehicle.

13 After a task force met in 2018 found
14 that this program was leading to parking
15 conflicts, the program was amended. Since then,
16 citizens can still install chargers in front of
17 their homes, but the spot is not reserved for the
18 resident. The space is now available for EV
19 parking only overnight, with non-electric
20 vehicles allowed to park for two hours at a time
21 throughout the day.

22 The zoning code also has provisions
23 requiring EV readiness in around 5 percent of new
24 residential parking lots, though current code
25 does not require installation of chargers, just

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2 the wiring that supports them.

3 Now I want to discuss work that is

4 currently underway to advance publicly available

5 electric vehicle charging infrastructure in

6 Philadelphia. In fall of last year, the city's

7 Office of Innovation and Technology's, Smart

8 Cities team, led by Director Akshay Malik, led a

9 task force to develop an EV transition strategy

10 for Philadelphia, and we're currently underway,

11 with the first task laid out in that document, of

12 forming a governance committee made up of

13 decision makers from relevant agencies in the

14 city to guide the development of EV policies.

15 Our office has also developed a

16 partnership with the Philadelphia Parking

17 Authority to build out electric vehicle charging

18 in our municipal parking lots through federal

19 grant programs. Just a couple of weeks ago, we

20 received the fantastic news that PPA received a

21 competitive grant award of over \$815,000 through

22 the National Electric Vehicle Infrastructure

23 program administered by PennDOT. This grant will

24 fund the installation of two direct current

25 charging stations that support four ports for EV

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2 fast charging in the 6th and Marshall Street
3 community parking lot. Since then, we've also
4 submitted a grant application for build-out of 25
5 additional chargers in PPA community parking
6 lots.

7 There's plenty of additional funding
8 available for the -- from the federal government
9 to build out EV charging infrastructure, and
10 we've developed a regional working group that
11 includes partners such as PECO, DVRPC, PennDOT
12 and the airport to strategize around these grant
13 opportunities.

14 OTIS's Infrastructure Solutions' team
15 also recently received a \$1.47 million grant to
16 launch Plug In Philly, which Councilmember Ahmad
17 mentioned earlier, a workforce development pilot
18 program that will recruit and train diverse
19 Philadelphians for careers in electric vehicle
20 supply equipment. Over two years, 45 people will
21 participate in Plug In Philly's pre-
22 apprenticeship program, with OTIS leading the
23 charge and in partnership with the International
24 Brotherhood of Electrical Workers Local 98 and
25 their training arm, ATEI, Plug In Philly will

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2 prepare workers for EV careers. The program will
3 give access to supportive services like training,
4 stipends, transportation, and childcare to
5 support participant retention and success.
6 We've also been looking to other cities
7 for inspiration. Cities like New York, Boston,
8 Atlanta, and Seattle. Many of these cities have
9 instituted increased requirements in their zoning
10 codes to require installation of EV chargers in
11 new parking lots, and Boston is working on
12 rolling out EV charging curbside in
13 neighborhoods.
14 Many cities have implemented charging
15 programs that allow residents to charge at
16 libraries, recreation centers, other public
17 spaces. We're looking closely at the early
18 lessons from these ventures.
19 In conclusion, the city of Philadelphia
20 has the opportunity to expand electric vehicle
21 charging infrastructure and support a transition
22 that is equitable and leads to high quality jobs
23 for Philadelphians. Our approach aims to
24 generate reliable public charging infrastructure
25 that residents can see, touch, and feel built by

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2 Philadelphians and for Philadelphians. Thank you

3 for the opportunity to appear before you today.

4 And I'd be happy to take any questions at this

5 time.

6 COUNCILMEMBER GAUTHIER: Mr. Puchalsky,

7 please state your name for the record and proceed

8 with your testimony.

9 MR. PUCHALSKY: Hi. Christopher

10 Puchalsky, director of policy and strategic

11 initiatives at OTIS. I don't have any additional

12 testimony.

13 COUNCILMEMBER GAUTHIER: Okay. Great.

14 Are there any questions for this panel by members

15 of the committee? Go ahead.

16 COUNCILMEMBER AHMAD: I do have a few

17 questions for OTIS. Is Chris testifying? Is

18 Chris going to be testifying?

19 COUNCILMEMBER GAUTHIER: He's available

20 for questions.

21 COUNCILMEMBER AHMAD: Questions.

22 COUNCILMEMBER GAUTHIER: Yeah.

23 COUNCILMEMBER AHMAD: Okay. I wanted

24 to thank you so much for that comprehensive

25 testimony, especially around the data about,

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2 obviously you've been thinking and strategizing,
3 and I think having a strategic plan of what is
4 the need, what is the availability, where will we
5 have them and then have our public know that,
6 right?

7 One of our biggest issues I'm finding
8 in just working in the city is that communication
9 is problematic. Not because we don't want people
10 to know, but people are inundated with so many
11 sources of information that we have to be
12 redundant in how we put out our information.
13 Multiple channels, multiple platforms. And if
14 we're going to move this needle, we have to have
15 people participate in the plan that you're
16 putting out.

17 I had a question about who is
18 responsible for maintenance of publicly owned
19 chargers, include cleaning and vandalism? And
20 the second part is, are we thinking about any
21 kind of protection of these chargers? Because
22 heat is a real issue and -- as is cold. As you
23 know, in Chicago during this winter, cars came to
24 a standstill because the chargers were not
25 working.

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2 So do we envision any kind of sort of
3 space where these chargers are somewhat protected
4 and there's some sense of lighting and security.
5 Because I've drove -- driven up and there's like,
6 in the middle of nowhere, there's a charger
7 sitting, there's no one around. It's nighttime.
8 I'm not stand -- stopping there, right? So how
9 are we -- that's part of the user experience. So
10 if you could address that.

11 MS. KELLY: Yeah, absolutely. So right
12 now, the, the maintenance and operations is on
13 the, the vendor or whoever owns the charger. As
14 I mentioned, PPA just won this award for
15 installing fast chargers in a community parking
16 lot. So that's kind of our -- the, you know, the
17 first foray into, you know, PPA will be working
18 with a vendor to make sure the operations and
19 maintenance of that charger happen. So that's
20 sort of the new -- a new frontier.

21 I will say, you know, with the programs
22 coming down from the Biden administration,
23 there's a couple interesting things to note.
24 They are saying for any charger funded with
25 federal funding, there needs to be a 97 percent

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2 uptime, and there needs to be a certain standard

3 of operations and maintenance that are in place.

4 So I'm really hopeful that that's going to push a

5 lot of vendors to be able to deliver on those

6 high uptimes. Yeah.

7 COUNCILMEMBER GAUTHIER: No, no, no.

8 COUNCILMEMBER AHMAD: Oh, okay. I, I

9 don't mean to hog the whole conversation.

10 COUNCILMEMBER GAUTHIER: No, no. Go

11 ahead.

12 COUNCILMEMBER AHMAD: Okay. So you,

13 you mentioned, you know, from what I understand

14 and from the work my staff has done, particularly

15 Kira Halma. Is she here? Where's Kira?

16 MS. KIRA: I'm back here.

17 COUNCILMEMBER AHMAD: Okay. I want to

18 just acknowledge her and Sarah and Dwayne for

19 doing a lot of the legwork to get us to this

20 point, to do this hearing. And I -- my, my

21 question is that when we're thinking about, you

22 know, having this, the licensing for getting a

23 charger, when a company comes, I believe the L&I

24 has to issue a license, and they have to provide

25 that they're using a licensed electrician to

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2 install the charger. And then if they're using
3 public space, how is that handled? That -- the
4 fact that they're going to use a public land to
5 put that. Is there a lease agreement and is it a
6 yearly? How does that work?

7 MR. PUCHALSKY: Yeah. So right now, if
8 you want to install a charger curbside in the,
9 what we call the furniture zone, that's the part
10 right next to the curb, you do have to get an
11 electrical permit. Obviously, these are in the
12 public right of way, so we want them to be safe,
13 and there's definitely been some instances where
14 they haven't been installed safely. In other
15 cities, we see instances where people drag an
16 extension cord across the sidewalk. That's not
17 safe. We don't -- we, we'd like to not have
18 that. It's both a tripping hazard and an
19 electrical hazard. It's -- the cord's not made
20 to be stepped on a thousand times a day. So we
21 want these to be safe.

22 I'm not aware of any instances, so far,
23 where somebody has wanted to install them on the
24 public land, though. Not just the public right
25 of way curbside in front of their own home, but

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2 actual public land.

3 COUNCILMEMBER AHMAD: Okay.

4 MR. PUCHALSKY: And that, that would
5 maybe be a question we can take back to L&I.

6 COUNCILMEMBER AHMAD: Okay. So in
7 other words, we're leaving it up to the, the
8 company in terms of what happens past being
9 licensed to have an electrician install it. Is
10 there -- what is the oversight of that process
11 from L&I? Like, do we have any -- is there a
12 yearly checking on how this unit is doing, or
13 what is the process of follow through on this
14 once it's been installed?

15 MR. PUCHALSKY: Yeah, I, I, I'm not
16 aware of regular inspection. I think maybe it's
17 useful to, to break these up into a few different
18 categories. I think there's the typical curbside
19 installation that's in front of someone's home.
20 It's, it's not operated by any of these charging
21 companies. It's just their own personal charger.
22 They bought it from somewhere --

23 COUNCILMEMBER AHMAD: Okay.

24 MR. PUCHALSKY: -- hired an
25 electrician, and it's theirs. I'm, I'm fairly

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2 certain there's not a regular inspection on that,

3 but I -- we can find out for sure. And then

4 there's the, the, the, the types of things we

5 find in parking lots. So --

6 COUNCILMEMBER AHMAD: Yeah.

7 MR. PUCHALSKY: -- I, I go to the Home

8 Depot in South Philly, sometimes, you know,

9 across, there's in those parking lots, you know,

10 you know, around the 25th and Oregon area there's

11 some charging stations there. There's, you know,

12 around the IKEA, there's lots of charging

13 stations. Maybe we'll have to get back to you

14 on, on those kind of more, more commercial. Not

15 just for personal use, but the commercial what

16 the --

17 COUNCILMEMBER AHMAD: So like Wawa has

18 -- now has charging --

19 MR. PUCHALSKY: Yeah.

20 COUNCILMEMBER AHMAD: -- stations on

21 their property. But because those are private

22 property, that's not in your jurisdiction to kind

23 of see. But I, I'm really getting at, regardless

24 of where, where you install it, should we have

25 some guidelines around what that installation

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2 looks like and what that maintenance piece looks
3 like, whether it's on private property or it's
4 on, on, you know, the curbside issues.

5 And if we were to look at other spaces,
6 like the airport is looking to put in a whole
7 bunch of chargers, if PPA is going to do it, what
8 are -- what is the requirement around of the
9 company when they put that in? And, and when I
10 describe the scenario of potentially having a
11 workforce development component of training
12 people to do the maintenance and create
13 businesses out of that, how would you envision
14 them interacting? And are we requiring our
15 charging companies to contract with somebody or
16 they provide it themselves? And do we have
17 evidence of them providing that sort of
18 maintenance and servicing?

19 I don't see anything in the code that
20 requires any of this. If -- I'm not sure. But
21 am I correct in that assumption?

22 MR. PUCHALSKY: Yeah, I'm, I'm not
23 aware of anything. And I -- so Anna mentioned in
24 her testimony that, or in her, her comments that
25 the federal guidelines for the new grant programs

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2 have a 97 percent uptime requirement. I think
3 what's left unsaid there is that requirement is
4 put in because the uptime currently we've seen in
5 the field is, is drastically lower than that,
6 some 80 percent or lower. I think some of those
7 could be flagged with the -- if the -- if the
8 charger knows it's not working, that's one set of
9 problems, and the company can send somebody out.
10 You know, talking to my colleague Akshay Malik,
11 who's here today, you know, he pointed out some
12 miscreant can put a piece of bubble gum --
13 COUNCILMEMBER AHMAD: Yes. Yes.
14 MR. PUCHALSKY: -- in the charger and
15 then you -- not only does it not work, but you
16 don't know it doesn't work until someone tries to
17 use the thing. So it, it -- it's, it's
18 definitely in the public interest that there is a
19 high uptime rate, whether that is in -- whether
20 the equipment is paid for by federal funds and
21 that's a federal requirement or it's a private
22 investment and there -- doesn't have the
23 requirement. I, I think that's something we'll
24 have to look into and get back to you, but I
25 certainly think it's, it's an important topic.

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2 MS. KELLY: I just wanted to add as

3 well -- oh, I don't know if --

4 MR. PUCHALSKY: No, you're good.

5 MS. KELLY: -- that's working. Okay.

6 Just wanted to add as well. I mentioned the

7 governance committee, first meeting of which is,

8 is next week, and we've included agencies from

9 across the city government, including L&I, in

10 that governance committee. So we're really

11 hopeful that that governance committee can serve

12 as a venue for these kinds of conversations

13 around how we think about that moving forward,

14 especially when thinking about charging on public

15 property.

16 COUNCILMEMBER AHMAD: Right. I have

17 another question. So, you know, the -- we're

18 going to have these vehicles, and in terms of

19 environmental justice, what are -- what is being

20 done to improve accessibility and ensure that,

21 you know, lower income communities are not being

22 left behind with these effects of carbon dioxide

23 emissions? Where are we on that? What, what

24 sort of efforts are we making to have equity on

25 this issue?

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2 MR. PUCHALSKY: So, so I think what we
3 see, so far it's mostly been up to the private
4 sector. And what we've seen is that when we've
5 mostly left it up to the private sector, we, we
6 don't have an equitable distribution of charging
7 infrastructure in this city. So that if you're
8 live in Center City or certain other
9 neighborhoods, you've got a lot of choices.
10 Whereas if maybe you live in North Philly, your
11 choices are much sparse.

12 So what, you know, there's -- it's a --
13 it's a problem that remains to be solved yet.
14 But, but what we've done so far is that we've
15 tried to, when we have grant applications, we're
16 looking at that to try to install.

17 So we, we had a application. It was
18 led by Akshay Malik for the CFI program, and we,
19 we, we, we, we chose locations for that grant
20 that hit those areas that are low income, tend to
21 be higher minority populations around rec centers
22 and other public facilities where we could
23 install charging infrastructure to, to, to fill
24 some of the gap that the -- that the private
25 sector miss.

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2 We didn't get that, but we are, like
3 anytime we don't win a grant, we, we learn, we
4 get a debrief, and then when we -- comes time to
5 submit again, we hopefully submit a better thing.
6 But that is going to be part of our grant
7 strategy to, to make sure that we're, we're
8 filling some gaps in the short-term and then
9 looking for other policies to incentivize the
10 private sector to install more charging in
11 neighborhoods, whether that's something at a rec
12 center or, I think you've mentioned yourself, a
13 service station model. How can we get the
14 private sector to install, you know, just like
15 you have gas stations in --

16 COUNCILMEMBER AHMAD: That's right.

17 MR. PUCHALSKY: -- every neighborhood
18 in the city, how can we get to the private sector
19 to install EV charging in every neighborhood in
20 the city?

21 MS. KELLY: Oh, just also wanted to
22 mention that the grant application I mentioned
23 for 25 additional chargers in PPA community lots.
24 One thing that's really wonderful about the PPA
25 community lots is they're pretty equally

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2 distributed throughout the city, and they

3 actually fill in a lot of the gaps that we're

4 seeing and where public charging and

5 infrastructure is available.

6 So we have submitted in that grant for

7 the additional 25 chargers, we specifically

8 looked at those Justice40 neighborhoods as the --

9 Biden administration requests for those -- for

10 those grants. And, and that's what we applied

11 for.

12 COUNCILMEMBER AHMAD: And so that

13 incentive could come from the federal government

14 itself, right?

15 MS. KELLY: Mm-hmm.

16 COUNCILMEMBER AHMAD: When they are

17 giving any kind of public money to the private

18 sector to incentivize this, and that's the

19 advocacy we can go do from the ground up. To

20 say, "When you're doing that, what else are you

21 asking for?" When, when we want equity included

22 in that process. Doing equity doesn't mean we

23 can't be a profitable business. I want to

24 underscore that, that I think sometimes people

25 think those are mutually exclusive and they're

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2 not.

3 So I think we have to find out ways to
4 make them profitable for the private sector, at
5 the same time, making sure that equity is a
6 priority in how we do that. Because money from a
7 low-income person is green as the money from, you
8 know, someone with a high income is also green.
9 It has the same buying power, right? So we need
10 to really, as a city, as a government, I think we
11 need to start thinking of how we bring those
12 forward and work with the federal government
13 because there's so much money being put into
14 this.

15 And that was what worries me sometimes,
16 that it is a lot of money and it's sort of hope
17 it's not willy-nilly, you know. We, we saw this
18 in the pandemic where so much money came down and
19 a lot of -- we didn't have infrastructure,
20 financial infrastructure to account for all of
21 that and led to a lot of issues. So, lessons
22 learned. Let's apply them here.

23 So, and the last question I have is on
24 the status of the Plug In Philly. I know it's
25 very new. Do you have any sense of enrollment?

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2 Do you know what we can project out of what's
3 happening there?

4 MS. KELLY: We can definitely get back
5 to you on that. Lily Reynolds, the director of
6 federal infrastructure strategies, is leading
7 that effort, and I know that they're underway.
8 Do you have any --

9 MR. PUCHALSKY: We'll get back to you
10 on that.

11 MS. KELLY: Yeah, we'll get back to you
12 on that.

13 COUNCILMEMBER AHMAD: Okay. Okay. You
14 have a question?

15 COUNCILMEMBER GAUTHIER: Oh, I, I call.
16 I, I apologize.

17 COUNCILMEMBER AHMAD: Yeah. Yeah.

18 COUNCILMEMBER GAUTHIER: Councilmember
19 O'Rourke. And then Councilmember Driscoll.

20 COUNCILMEMBER DRISCOLL: Sure.

21 COUNCILMEMBER O'ROURKE: Thank you,
22 Madam Chair, and good afternoon.

23 MS. KELLY: Good afternoon.

24 COUNCILMEMBER O'ROURKE: Some of this
25 you've actually, actually covered in your -- in

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2 your testimony, but I kind of wanted to get more
3 out of you from it, just if you could speak to
4 some of -- some of it. I think you stated that
5 the majority of the, the EV stations right now in
6 the city are located here in Center City, but
7 that you were projecting to see a, a development
8 of them through PPA at all of their lots across
9 the city through some federal dollars.

10 Can you talk again about the general --
11 about other placements beyond those two spaces
12 where you know the charging stations are right
13 now? Kind of like, where are the other rare
14 spots where folks might be able to find them?

15 MS. KELLY: Sure. So I think that I
16 have a map that I included in my supplemental
17 testimony that shows where the chargers are
18 currently located. So right now, they're pretty
19 concentrated in Center City. And then there are
20 some publicly available chargers that are also in
21 northwest area, but pretty, pretty concentrated
22 in Center City right now in terms of publicly
23 available.

24 COUNCILMEMBER O'ROURKE: Got you. And
25 I'm assuming because these things -- these were

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2 private chargers you're talking about that were
3 developed in, like Northwest or in these other,
4 other ones, these are privately owned charging
5 stations -- charging stations?

6 MS. KELLY: Yeah. So it's a --

7 COUNCILMEMBER O'ROURKE: Okay.

8 MS. KELLY: -- combination of the
9 curbside charging program. So individuals who
10 installed them on their curbside to charge their
11 own private vehicles and then chargers owned by
12 private companies that are publicly accessible.

13 COUNCILMEMBER O'ROURKE: Okay. This
14 may not be a relevant question. What criteria
15 does the city use to decide, or will it decide to
16 where to locate the new EV charging stations
17 going -- coming forward?

18 MS. KELLY: Yeah, that's a fantastic
19 question. So that is another really important
20 question that we're hoping to address in this
21 governance committee, is a really, you know,
22 comprehensive set of guidelines for if, you know,
23 a vendor is to come to the city and say, "We want
24 to install a charger here, or we want to
25 install," you know, we, we want to make sure that

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2 we have a comprehensive look at the city, and,

3 and we can go through a checklist and say, like,

4 "This is our siting criteria and this is how we

5 want to do it."

6 COUNCILMEMBER O'ROURKE: So we need

7 access to charging stations for electrical

8 vehicles as we make this transition. And also,

9 I, I recognize the need for even greener options

10 for transit to meet our, our carbon emission

11 goals.

12 How is OTIS thinking about locating

13 charging stations? So once you come to those

14 meetings and you start working out the criteria.

15 So that they're useful for EV drivers, but also

16 don't discourage even greener transportation

17 options, like walking, like bicycling, like

18 public transit. For example, can charging

19 stations be placed strategically to even

20 encourage these greener options as connections to

21 the final destination?

22 And I want to ask it now because the

23 infrastructure is not completely built out, and

24 it would be nice to begin with the mindset

25 towards, how can we accommodate this that we

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2 need, but also be mindful that we want to
3 generate, you know, non-car ways of, of getting
4 around?

5 MR. PUCHALSKY: Yeah. I think that's a
6 great question. I think you've kind of framed it
7 that EV charging, and I think even Councilmember
8 Ahmad framed it, that it's, it's part -- it's
9 part of a transportation strategy. We, we're an
10 autocentric city, we're an autocentric country.
11 We can't change that. It's -- we should have the
12 driving that people do the cleanest way possible.
13 But we also need to make transit, walking, and
14 biking safe, affordable, convenient for people.
15 So we've got to do both of those things. That's
16 the chew gum and walk at the same time.

17 It's a great -- I don't think we've got
18 it all figured out, it's a great question, but I
19 know people have two things. People have talked
20 about this idea of mobility hubs, where you'd
21 have transit, you'd have bike share, and you'd
22 have some electric vehicle charging. I think
23 there's probably places that make sense, places
24 where it doesn't make sense.

25 I think the -- one of the problems is

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2 having so much of the electrical vehicle charging

3 in Center City, it's, it's not just that it's,

4 that, that, you know, tends to be the wealthiest

5 part of the city, but it's, it's also the, the,

6 the, the most rich in terms of being able to

7 walk, bike, and take transit. So that's where I

8 think it makes sense that you, you, you have --

9 you try to concentrate some of your electric

10 vehicle charging in some of the places where it

11 is more natural for people to drive.

12 So Roosevelt Boulevard is a great case.

13 It's, it's, you know, there's a lot of more

14 autocentric uses. That, that would be a great

15 place where people are going to drive. We're,

16 we're trying to make transit better. I know

17 Councilmember Driscoll has been very interested

18 in improving transit along Roosevelt Boulevard.

19 We want to do that, but we also want to make sure

20 that the people who are going to drive in the

21 northeast have -- are able to use electric

22 vehicles to do that driving same places and

23 maybe, you know, further parts of the southwest

24 of the city.

25 COUNCILMEMBER O'ROURKE: But you are

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2 thinking about it already. You're looking
3 forward to having those conversations and
4 figuring out how to make that more clear. Yes?

5 MR. PUCHALSKY: Yeah.

6 MR. PUCHALSKY: I appreciate you, sir.

7 Thank you so much.

8 MR. PUCHALSKY: Thanks.

9 COUNCILMEMBER O'ROURKE: Thank you,
10 Madam Chair.

11 COUNCILMEMBER GAUTHIER: Councilmember
12 Driscoll.

13 COUNCILMEMBER DRISCOLL: So thank you.
14 Thank you, for --

15 COUNCILMEMBER AHMAD: Yeah.

16 COUNCILMEMBER DRISCOLL: Yeah, thank
17 you for -- whoa. Thank you for your efforts

18 here. We, we do appreciate it. And this isn't

19 specific to you. It's probably for all the

20 stakeholders in a room that, you know, that can,

21 can be, are ambassadors of doing the right thing.

22 Late last year, an investigative

23 reporter from Channel 10, Claudia Vargas, brought

24 to my attention that both the city of

25 Philadelphia itself and contractors in the city

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2 of Philadelphia were installing these charging
3 stations without permits. And you can imagine
4 how dangerous that is.

5 So I, as chair of the Oversight
6 Committee of License and Inspection, you know, I
7 immediately notified the commissioner of license
8 and inspection, pointed out that the city is not
9 immune of ourselves as a government from getting
10 permits for these stations. And as -- and I want
11 these things to proliferate and, and, and be in
12 appropriate places so that my colleague can drive
13 her car.

14 But I just wanted to use this forum to
15 bring it to the stakeholders in the room. I know
16 Local 98 teaches that in their classes and very
17 grateful for that, but just as we go forward, if
18 you see something, say something, and, and we're
19 on your side on this issue. Thank you.

20 MR. PUCHALSKY: Thank you.

21 MS. KELLY: Thank you.

22 COUNCILMEMBER GAUTHIER: Great. And I
23 know that this hearing is mostly about public
24 charging stations, but are you able to offer any
25 information on our plans to also expand the

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2 ability for city workers to access charging

3 stations for, for EVs?

4 MR. PUCHALSKY: Yeah, I think for that,

5 I'd like to call up Dominic McGraw from the

6 Office of Sustainability to answer that question.

7 COUNCILMEMBER GAUTHIER: Great.

8 MR. PUCHALSKY: Just -- he can sit

9 there.

10 MR. MCGRAW: Good afternoon, council

11 members. I'm Dominic McGraw from the Office of

12 Sustainability. I'm the deputy director of

13 energy services and operations.

14 COUNCILMEMBER GAUTHIER: Great.

15 MR. MCGRAW: Did you -- oh, sorry.

16 Was there --

17 COUNCILMEMBER GAUTHIER: So the

18 question is, are you able to offer any

19 information on our plans while building out

20 public charging stations to also expand the

21 capacity for city employees to charge their EVs?

22 MR. MCGRAW: Yes. So we are working

23 across departments to expand EV infrastructure.

24 We're working directly with Department of Fleet

25 Services to really look at and evaluate where the

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2 most critical need is for additional electric
3 vehicle chargers. All the current chargers that
4 we have now, out of the hundred some chargers,
5 only one is a smart charger. So we're looking to
6 incorporate more technology into these, upgrading
7 these chargers that we have and expanding the
8 footprint.

9 We're -- we've applied for several
10 grants. One notably is the Climate Pollution
11 Reduction Grant through the Inflation Reduction
12 Act. So if we're awarded those funds, that'll
13 significantly help us to expand out in, in what
14 we're looking, looking at.

15 Right now, our first Level 3, which
16 will be -- also be a smart charger, will be --
17 is, is actively being installed in one of our
18 fleet shop sites. And so departments can use
19 that site to, to charge their vehicles, much like
20 the, the contracted Level 3 sites that we have.
21 But we're, we're, we're really looking to expand.

22 And, and Department of Fleet Services
23 within this capital plan for fiscal year 25 is
24 putting forward some charging infrastructure, as
25 is our department. So we're going to work in, in

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2 tandem. So Fleet Services will be installing

3 Level 3 chargers in their fleet shops. And then

4 we are looking at Level 2 and 3 across citywide

5 to assist, including assisting the water

6 department with, with their needs.

7 COUNCILMEMBER GAUTHIER: Great. And

8 where are we now in terms of charging stations

9 available to municipal employees, and where are

10 we trying to get by what timeline?

11 MR. MCGRAW: Great question. So I

12 think right now we're developing plans, looking

13 at assessing the data from the current EVs that

14 we have, what -- using -- we, we've recently

15 released our Municipal Clean Fleet Plan update a

16 few weeks ago, and I can -- I can share that

17 around.

18 And the idea here is really to expand

19 the footprint, so -- but it's really -- it's

20 really an assessment. So we need to assess our

21 sites, which takes time. Right now, we need to

22 do a service and meter request per site to assess

23 with PECO that there's enough local capacity to,

24 to support the charging infrastructure, and then

25 also, does the building itself need a panel

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2 upgrade or whatnot?

3 And what we're finding as we're going

4 around is, as you can imagine, the, the, you

5 know, the original electrical design was not

6 anticipating the, the, the demand for, for these.

7 And as we're incorporating more cooling in our

8 facilities and that demand is, is increasing, you

9 know, what can we do? So, so really using smart

10 chargers will help us be able to adapt. And I

11 think we're really trying to develop what that

12 plan looks like so we don't -- we don't have a

13 full plan to, to, to give you all today, but

14 we're, we're actively developing it with

15 consultants and, and assessing our sites right

16 now.

17 COUNCILMEMBER GAUTHIER: Great. Thank

18 you. And we'd love to see the update to the

19 Clean Fleet --

20 MR. MCGRAW: Absolutely.

21 COUNCILMEMBER GAUTHIER: -- Plan.

22 Thank you all for your testimony and for your

23 work.

24 COUNCILMEMBER AHMAD: I, I have one

25 question before they go.

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2 COUNCILMEMBER GAUTHIER: Sure.

3 COUNCILMEMBER AHMAD: It's just sort of

4 a house --

5 UNIDENTIFIED SPEAKER: Your mic is off.

6 COUNCILMEMBER AHMAD: Yeah.

7 Housekeeping. I'm getting it. Housekeeping.

8 And you said you were putting like a group

9 together to discuss all of this. What is the

10 role city planning commission is playing on this?

11 You know, this how we are doing the strategic

12 planning?

13 MS. KELLY: Yes. So they will be an

14 active member of the, the governance committee

15 (indiscernible).

16 COUNCILMEMBER AHMAD: And the reason I

17 ask this is because they're the ones to

18 disseminate to the rest of the city. Where are

19 we going with this? You know, you have very

20 specific lanes, I understand, you know, in, in,

21 in the Department of Transportation. But I think

22 we need sort of a, a messaging for the -- for the

23 rest of the city and for the rest of the country

24 to see that.

25 And I would love to see the city

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2 planning commission, who has oversight over lots

3 of other things that are happening in the city,

4 not just this and how we are working in concert

5 to change, you know, what Philadelphia is

6 perceived as. And that's really why the question

7 was, is, how are we changing perceptions?

8 Because we need more revenue, right? And that'll

9 only come if we're changing the perception that

10 we are a city looking to be innovative, looking

11 to be, you know, looking into the future and also

12 doing things that look growth oriented, where

13 people can participate in the private sector as

14 well. So thank you so very much. Yeah.

15 COUNCILMEMBER GAUTHIER: Thank you.

16 MS. KELLY: Thank you.

17 MR. PUCHALSKY: Thank you.

18 COUNCILMEMBER GAUTHIER: Will the clerk

19 please call the next panel of witnesses to

20 testify on the resolution?

21 THE CLERK: Okay. The third panel

22 includes --

23 COUNCILMEMBER AHMAD: Second.

24 THE CLERK: Oh, excuse me, the second

25 panel includes Will Sowers, senior manager of

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2 public partnerships and policy for Zipcar, Nigel

3 Broomhall, cofounder and CEO of Invisible Urban

4 Charging, and Paula Hinson, electric vehicle

5 territory manager for Hough Capital LLC.

6 MS. HINSON: Yeah.

7 MR. SOWERS: Well, how are you?

8 COUNCILMEMBER GAUTHIER: Good

9 afternoon. Please state your name for the record

10 and proceed with your testimony.

11 MR. SOWERS: Good morning. Or good

12 afternoon. My name is Will Sowers, Chair

13 Gauthier, Chair O'Rourke, and members of the

14 joint committees of the Environment, Global

15 Opportunities, and the Creative and Environment

16 Innovative Economy. My name is Will Sowers and I

17 serve as the senior manager of public

18 partnerships -- thank you. And policy for

19 Zipcar.

20 I appreciate the opportunity to provide

21 testimony on how Zipcar and car sharing can help

22 advance the city's electrification goals under

23 Resolution No. 240172 and to answer any questions

24 you may have today.

25 Zipcar is the world's leading car

1 4/26/24 - JOINT - RESOLUTION NO. 240172.
2 sharing network, driven by the mission to enable
3 simple and responsible urban living by reducing
4 the need for personal car ownership. Car sharing
5 allows Zipcar members to reserve vehicles by the
6 hour or by the day, typically from a location
7 just a short distance from home. By sharing a
8 car, fewer personal vehicles are on the road,
9 which means less congestion, less carbon
10 emissions, less curb and parking competition, and
11 more free space in neighborhoods across the city
12 for people and not cars.

13 While Zipcar has a national presence,
14 we consider our relationship with Philadelphia to
15 be particularly important as our president,
16 Angelo Adams, is a proud Philly native hailing
17 from the 9th Councilman District. While Angelo
18 regrets that he could not be here today, he
19 recently visited to help launch our new
20 partnership with the Philadelphia Housing
21 Authority, where Zipcar provides affordable,
22 convenient vehicles to residents, enabling them
23 to access personal and professional
24 opportunities. A press release outlining the
25 partnership has been submitted as part of my

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2 testimony.

3 On March 4th earlier this year, my
4 colleague, Torrey Fishman, had the opportunity to
5 testify before the Legislative Oversight
6 Committee on how car sharing can advance
7 Philadelphia's carbon neutrality goals. A copy
8 of his testimony has also been submitted as part
9 of today's and includes information regarding
10 this -- the specific impact of car sharing for
11 your residents. Today I'll focus specifically on
12 electrical -- electric vehicles, known as EVs, as
13 part of our car sharing fleet.

14 Last year marked a beginning of a new
15 chapter for Zipcar. We further expanded our
16 commitment to reducing carbon emissions by
17 launching EVs across multiple markets, including
18 here in Philadelphia. We also joined the White
19 House EV Acceleration Challenge, committing to
20 placing 25 percent of our EV fleet in
21 overburdened communities and expanding our EV
22 fleet to -- up to current -- double its current
23 size in 2024.

24 EV car sharing has been recognized as a
25 significant path forward to electrifying urban

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2 transportation systems. In a 2020 study

3 conducted by Dr. Susan Shaheen of the University

4 of California Berkeley's Transportation

5 Sustainability Research Center, EV car sharing

6 users were more likely to recommend EVs to others

7 and more likely to purchase an EV in the future.

8 The Biden-Harris administration and the

9 Joint Office of Energy and Transportation

10 recently announced a \$54 million funding

11 opportunity, just this past week, as part of its

12 Communities Taking Charge Accelerator, that will

13 provide charging and deployment solutions for

14 shared electric vehicles, a potential opportunity

15 to expand EV car sharing in cities nationwide

16 like Philly.

17 EV car sharing provides access to

18 electric vehicles to those who cannot afford to

19 lease or purchase one. It removes the -- removes

20 the barrier to EV adoption for those without

21 access to home charging, particularly those

22 living in multifamily housing. It expands

23 sustainable travel options for those who rely on

24 biking, walking, and public transit. And while a

25 typical Zipcar member reduces their carbon

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2 footprint by 1600 pounds per year compared to
3 non-car sharers, electrifying those trips further
4 reduces greenhouse gas emissions.

5 Deploying electric vehicles in a car
6 sharing network has different challenges compared
7 to a typical consumer owned EV or centralized
8 fleet. An EV car sharing trip can be someone's
9 first EV experience, and range anxiety is a
10 common concern. As research by Dr. Shaheen in a
11 2022 study, Vehicle Electrification in Carsharing
12 and Transportation Network Company Fleets, car
13 share operators must carefully consider how to
14 ensure users have a sufficient battery charge to
15 complete their trip, as insufficient power levels
16 could have a long-term impact on their
17 willingness to use it again in the future.

18 Furthermore, Shaheen suggests that
19 infrastructure uncertainties, location, and cost
20 have significant impacts on the ability to
21 electrify shared vehicles.

22 To mitigate those challenges, Zipcar
23 has prioritized creating a positive EV and EV
24 charging experience for our members and partners.
25 Zipcar uses a variety of charging methods to

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2 ensure our vehicles are ready for every
3 reservation, such as dedicated Level 2 chargers
4 at our home locations, mobile charging, and
5 shuttling our vehicles to DC fast chargers.

6 Additionally, members receive an EV
7 onboarding guide that informs them on how to find
8 charging stations and charge their Zipcar mid
9 trip. We include the cost of charging with each
10 reservation, just like our gas vehicles, and
11 provide access via an RFID card in the vehicle
12 through partnerships with EVgo and ChargePoint.
13 We proactively monitor the charging levels of our
14 electric Zipcars to make sure our members have a
15 positive EV experience.

16 This world class experience is unlike
17 that of the average EV car owner and a result of
18 our strong partnerships with innovative industry
19 partners in cities. At Zipcar, we believe the
20 road to electrification rests on a strong
21 foundation of convenient charging infrastructure,
22 which is just starting to emerge in cities
23 nationwide.

24 An optimal charging framework is
25 necessary to support an electrified fleet. For

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2 charging infrastructure to be successful, we
3 believe there are four key areas infrastructure
4 must include. It must be reliable, well
5 maintained, and easy to use. It must be
6 convenient and easy to find, no different than a
7 gas station. It must be in safe, well-lit
8 locations and it must be available across the
9 city at different types of locations so every
10 resident and visitor can have easy access to
11 charging.

12 As we electrified our fleet, one
13 central theme emerged from our learnings,
14 partnership. Partnerships across the EV
15 ecosystem with government, charging operators,
16 housing authorities, residential complexes,
17 universities, lodging, and other groups have
18 provided the template to -- for successful
19 programs. A few of those include our partnership
20 with the Sacramento Metropolitan Air Quality
21 Management District to create our community car
22 share.

23 EV car sharing in low income,
24 disadvantaged communities, recently featured in a
25 US Department of Energy's case study. A

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2 partnership with the New York City Department of
3 Citywide Administrative Services to enable city
4 employees to use electric Zipcars for city
5 business and a partnership with boutique hotel,
6 Staypineapple, located in Seattle and Portland,
7 which provides access to electric Zipcars for
8 hotel guests.

9 Today, we are working with our city
10 partners to find creative solutions to electrify
11 our car sharing locations. The city of Boston
12 was our first city partner to provide Zipcar with
13 dedicated Level 2 charging at its municipal lots.
14 Dedicated Level 2 charging allows the Zipcar
15 member to start a trip at a full charge and plug
16 back in when they return the car at its reserved
17 space, providing a positive EV charging
18 experience.

19 Many of our city locations, like here
20 in Philadelphia, are located curbside. Our
21 members love curbside car sharing locations.
22 They are convenient and easy to find. However,
23 curbside can be a challenge to electrify with
24 competing curb uses and high installation costs.

25 To resolve those issues, curbside

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2 chargers should have retractable cables to
3 minimize vandalism concerns and reduce conflicts
4 with pedestrians and cyclists with consideration
5 for utility pole or lamppost mounted applications
6 to reduce installation costs. For example, the
7 city of Seattle and its utility, Seattle City
8 Light, conducted a curbside charging pilot
9 program using pole mounted retractable cable
10 chargers, resulting in comprehensive car share
11 friendly design standards. A link to those
12 standards is included in my testimony.
13 A best practice we acquired from
14 providing shared electric vehicles as a
15 sustainable transportation solution is that
16 collaboration between the public and private
17 sector is critical to successfully meet and
18 expand sustainable transportation goals. By
19 working together and tapping our broad and deep
20 experience, Zipcar, the city of Philadelphia,
21 PECO, and other public and private sector
22 partners can advance this historic generational
23 transition and ensure that we are paving the way
24 for the future of sustainable transportation.
25 Further, we found that EV car sharing

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2 is the best way to bring affordable electric
3 vehicle access to low income and underserved
4 communities, and we look forward to working with
5 the city and other local partners on all
6 available grant or funding opportunities to make
7 this happen.

8 As a mission driven company, Zipcar
9 shares the city's goal of reducing carbon
10 emissions and can provide innovative solutions to
11 help the city become a national model that runs
12 on affordable, convenient, and sustainable
13 transportation. Zipcar has made material
14 commitments to provide and promote sustainable,
15 equitable transportation, not only in
16 Philadelphia, but across the country.

17 To that end, we look forward to
18 continuing the work with this -- these committees
19 and the city council to advance the city's carbon
20 neutrality goals under this resolution by
21 expanding electric car sharing as an affordable
22 and sustainable transportation option throughout
23 the city.

24 I appreciate Councilmember Ahmad's
25 sponsorship of this resolution and leadership on

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2 this issue. Thank you for your support and for

3 the opportunity to testify today. I would be

4 happy to answer any questions.

5 COUNCILMEMBER GAUTHIER: Thank you so

6 much. Ms. Hinson, can you please, please state

7 your name for the record and proceed with your

8 testimony?

9 MS. HINSON: Sure. Thank you for

10 having us. My name is Paula Hinson. I am a EV

11 consultant for Talson Solutions, and I am here

12 basically in support of Nigel. My background, I

13 used to sell electric vehicle charging stations

14 for Hough Capital and I have pretty extensive

15 experience in the sales of EV charging stations,

16 both Level 2 and Level 3. But I'm going to pass

17 the mic over to Nigel and he will give you a lot

18 more information.

19 MR. BROOMHALL: Thank you.

20 Distinguished members of the Council, thank you

21 for the opportunity to testify here today. My

22 name is Nigel Broomhall and I'm the chief

23 executive officer of Invisible Urban Charging.

24 IUC is a US-based company, contrary to my accent,

25 with a global footprint, footprint, and we're

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2 driven by a core mission, and that is to
3 accelerate the world's transition to electric
4 transport.

5 We achieve this by deploying and
6 maintaining reliable networks of publicly
7 accessible EV charging stations around the world.
8 Imagine a future where EV charging is as
9 ubiquitous as gas stations are today, a future
10 powered by clean and sustainable transportation,
11 and a future where charging infrastructure just
12 works. Here at IUC, we're actively making that
13 vision a reality.

14 We're proud -- we were proud to
15 announce, a couple of weeks ago, a landmark
16 partnership with CBRE to deploy one million
17 chargers across the United States across the next
18 five years. This collaboration builds on our
19 success in Europe, where we're -- we have also
20 signed contracts to install 300,000 chargers,
21 starting with the UK, Germany, Italy, and Norway.

22 We bring this global experience at
23 scale and a proven track record to Philadelphia,
24 ready to help the city become a leader in
25 accessible and reliable EV infrastructure.

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2 While Philadelphia has made strides in
3 promoting EV adoption, challenges remain
4 regarding reliability and maintenance of publicly
5 available charging stations. I can say that
6 these mirror the challenges that we see in almost
7 every other city around the world. There is
8 limited network coverage, many areas,
9 particularly underserved communities lack
10 adequate access to charging infrastructure.
11 Station downtime is an issue. Inoperable
12 chargers due to malfunction or lack of
13 maintenance create frustration, frustration for
14 EV drivers, and they hinder the transition to
15 electric transport.

16 Data transparency is an issue. A lack
17 of real time data on charger availability and
18 functionality makes trip planning for EV drivers
19 difficult. And small installations. EV chargers
20 installed in small numbers mean that any
21 inoperable stations and block stations become
22 material challenges for EV drivers. However,
23 these challenges also present exciting
24 opportunities, and IUC is uniquely positioned to
25 address these.

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2 We have global expertise, particularly
3 through our partners. Leveraging our experience
4 in diverse urban environments we can develop a
5 deployment strategy that considers Philadelphia's
6 specific needs. Scalable solutions. Our
7 solution is well-funded and highly scalable,
8 ensuring that we can meet Philadelphia's growing
9 EV infrastructure demands.

10 We're accountable for uptime. As we
11 would say in, in our world, one throat to choke,
12 we utilize high quality and future proof charging
13 technologies, data protocols, and security to
14 ensure we have visibility of our network 24 by
15 7/365 and ensuring a guaranteed uptime ratio
16 above 97 percent.

17 And scale and density. We only install
18 in minimum blocks of 10 charges at any one site,
19 and we encourage scaling this to between 10 and
20 20 percent of all parking stalls for future
21 proofing.

22 We do see also opportunities beyond
23 charging. The transition to EVs presents a
24 wealth of opportunities for Philadelphia beyond
25 just environmental benefits. IUC, along with our

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2 Philadelphia based partners like Talson

3 Solutions, a respected Philadelphia based

4 company, and others, are committed to working

5 with the city to unlock these opportunities.

6 Job creation and training is one in

7 particular. The deployment and maintenance of EV

8 charging infrastructure requires a skilled local

9 workforce. IUC, in collaboration with local

10 partners like Talson, can help create new

11 training programs and job opportunities for

12 Philadelphians, fostering a thriving, clean

13 energy industry in the city. We estimate the

14 creation of between 751,000 jobs to deploy and

15 maintain 20 to 25,000 EV chargers to meet demand

16 by 2030. And these job numbers don't go away,

17 they will continue to grow as EV numbers grow.

18 We also see an increased revenue

19 opportunity for the city. Ours is a charging as

20 a service model and this ensures that the city

21 retains 80 percent of the revenue from the EV

22 drivers using the charging stations. This new

23 income stream can be used to fund vital programs,

24 infrastructure improvements, and community

25 initiatives. Once deployed -- and each charging

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2 station is used only once per day -- we estimate
3 the city could generate \$75 million per year and
4 this approach continues to grow into the future.

5 Local and minority business
6 partnerships. We are committed to partnering
7 with local and minority owned businesses like
8 Talson for critical services like professional
9 and construction services. This not only fosters
10 economic inclusion, but leverages the expertise
11 and experience of these businesses for the
12 benefit of the entire city. In fact, a joint
13 proposal by IUC and other minority firms
14 highlighting this collaborative approach has
15 already been submitted to PennDOT.

16 As well as Talson, our local team
17 includes David Mason + Associates, US Facilities,
18 McKissack and Obermayer.

19 We agree with the estimations in
20 regards -- that were previously tabled, in
21 regards to the number of charging stations
22 Philadelphia will need. We estimate they will be
23 20 -- there will be between 20 and 35,000 public
24 charging stations to meet the demand by 2030 and
25 we are committed to working with the city of

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2 Philadelphia to develop a data driven plan to --
3 for deploying charging stations strategically
4 throughout the city, ensuring all residents have
5 access to reliable and convenient charging
6 options.

7 In terms of our approach, we provide a
8 cost effective, reliable, and sustainable
9 solution for Philadelphia's EV charging
10 infrastructure needs. We utilize our own
11 capital. That's used to deploy, most
12 importantly, permit, permit, design, deploy, and
13 maintain the network, eliminating upfront costs
14 for the city.

15 We're also not dependent on grants, but
16 we do have an innovative approach to how the city
17 could utilize grants to achieve a superior long-
18 term benefit. Our uptime guarantee ensures
19 reliable service and minimizes disruptions for EV
20 drivers. We do all this for a fixed fee per
21 socket and we take full responsibility for
22 ongoing maintenance, repairs, replacements, and
23 we -- that allows you to free up city resources
24 for other priorities.

25 In terms of economic benefits, we

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2 partner globally with established firms, CBRE and
3 JLL, to hire and train local workforces for
4 installation and maintenance, stimulating the
5 local economy, and as I said, the city retains 80
6 percent of the revenue generated by EV drivers
7 using the charging stations, creating that new
8 income stream. Our open data platform provides
9 valuable insights on charging usage patterns and
10 the city maintains control over pricing
11 structures for all EV charging.

12 From a long-term sustainability
13 perspective, we utilize standardized technologies
14 and guarantee replacing all charges at least once
15 within the term of the contract, ensuring
16 compatibility with evolving EV standards. Our
17 global experience and proven track records
18 position us as a reliable partner.

19 In terms of a sustainable future,
20 building a robust and reliable public EV charging
21 network in Philadelphia requires collaboration
22 between various stakeholders and we are committed
23 to working with city agencies to develop
24 strategic deployment plans and prioritize
25 underserved communities, leveraging our global

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2 expertise, utilities to ensure sufficient grid
3 capacity and explore innovative charging
4 solutions. Drawing on our experience in
5 collaborating with utilities worldwide and
6 community organizations to raise awareness about
7 EVs and promote charging accessibility in all
8 neighborhoods, fostering a more inclusive
9 transition to electric transportation.

10 In conclusion, building a robust and
11 accessible public EV charging network is just the
12 first step. By working together with the city
13 and local partners like Talson, IUC can help
14 Philadelphia unlock the full potential of the EV
15 revolution, creating a more sustainable,
16 prosperous, and equity -- equitable future for
17 all residents. We stand ready, ready to partner
18 with the city of Philadelphia to develop a
19 comprehensive EV charging strategy that addresses
20 not only infrastructure needs, but also job
21 creation, economic development, and community
22 benefits.

23 We welcome the opportunity to discuss
24 these issues further and collaborate with Council
25 to make Philadelphia a leader in the EV

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2 revolution.

3 COUNCILMEMBER GAUTHIER: Thank you so
4 much. Councilmember Ahmad.

5 COUNCILMEMBER AHMAD: Yeah. Thank you
6 so much. Yeah. I remember. Thank you so much
7 for your testimony, both of you. I'll start with
8 him because I have to remember his accent and
9 remember what he said. I'm doing a translation
10 in my head. Thank you so much. Congratulations
11 on your one million --

12 MR. BROOMHALL: Thank you.

13 COUNCILMEMBER AHMAD: -- EV charger
14 contract with CBRE. Where, where are those?
15 Just to -- just for curiosity. Where are those
16 going to be?

17 MR. BROOMHALL: They are across the US.
18 So there's no one specific area. CBRE has 15,000
19 different sites --

20 COUNCILMEMBER AHMAD: Yeah.

21 MR. BROOMHALL: -- so everywhere.
22 Yeah.

23 COUNCILMEMBER AHMAD: You seem to have
24 a lot of data around this. I, I don't know if
25 it's, you know, you know, if this data is

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2 anything you can share with us. We would love to
3 see how you came to these numbers and, and, and
4 see how we can kind of model some of it, since
5 you're actually going to go into a million of
6 these, right?

7 So my question is, what is the economic
8 model? Like what is, is the return on investment
9 on this site and sort of owners plus city look
10 like?

11 MR. BROOMHALL: So our model is
12 charging as a service where we invest capital and
13 installing the chargers. So we do everything end
14 to end. Permitting is important through design,
15 installation, commissioning, and then the ongoing
16 monitoring, management, maintenance, and
17 monetization on behalf of the site owner, in, in
18 this case the city.

19 What happens is we have a fixed fee,
20 and you need to have a transaction a day per
21 charger before chargers break even and become
22 profitable. We can share that model with you so
23 it shows how you can get to profitability on
24 charging infrastructure.

25 Our, our mission is to accelerate the

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2 transition through charging infrastructure, so
3 it's critical. And our model's designed to get
4 stations to profitability, so site owners want to
5 put in more infrastructure. So we can share that
6 with you.

7 COUNCILMEMBER AHMAD: So, so the
8 responsibility for all this servicing, you said
9 you do the whole maintenance and servicing for
10 the owner of the actual. So you don't actually
11 own the charging stations?

12 MR. BROOMHALL: We, we own the charging
13 stations.

14 COUNCILMEMBER AHMAD: You do.

15 MR. BROOMHALL: So that is on us. What
16 we provide as a service is a guaranteed uptime.
17 And we also ensure that the charging
18 infrastructure maintains pace with any technology
19 changes. So that future proofing piece is, is on
20 us as well.

21 COUNCILMEMBER AHMAD: And I have a
22 question for Will Sowers. So you will need his
23 chargers for your Zipcars, right? So --

24 MR. SOWERS: Exactly.

25 COUNCILMEMBER AHMAD: So, you know,

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2 it's a great model, and I think I've used them,

3 and I know many others have used them. What has

4 been -- do you have like quality -- well, maybe

5 qualitative and quantitative data around the

6 experience of your customers? Meaning they come

7 to -- they get a charge -- a car fully charged,

8 and then they go about their business and then

9 they bring it back and then they -- but in that

10 interim, they might run out of charge, or they

11 might need more charging. Do you get any

12 feedback? Do you have any information from them

13 of their experience using an EVZIP?

14 MR. SOWERS: We do. We've done

15 extensive research, both qualitative and

16 quantitative, with our membership on that

17 experience from the moment they pick up the EV to

18 the moment that they bring it back. And that is

19 in part why we have come to believe that, one, we

20 cannot move faster to electrify our fleet than

21 where infrastructure is going. And so because

22 it's the moment that we move faster is going to

23 be a poor experience for our members.

24 COUNCILMEMBER AHMAD: Right.

25 MR. SOWERS: And so we're taking those

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2 learnings, though, and that's why we've developed

3 an EV guide for them, to help them overcome some

4 of those challenges. So that EV guide comes

5 directly from those, those types of learnings.

6 And we do everything from not just, you know,

7 quantitative surveys, but also even qualitative

8 interviews where we talk one-on-one with a member

9 about that experience so we can incorporate that

10 directly into our learnings and our product

11 planning. So those learnings go directly into

12 what we may do next quarter to improve that

13 experience.

14 COUNCILMEMBER AHMAD: And again, I

15 don't know if you're able to share some of that

16 data because that would make our life a little

17 easier to know what the user experience has been

18 in our city and that would help us be more

19 strategic in how we do all these placements. So

20 we would love, from both of you, what you can

21 share to, to, to forward that to us. Yeah. You

22 know, whatever you can. That would be --

23 MR. SOWERS: Absolutely.

24 COUNCILMEMBER AHMAD: -- really much

25 appreciated.

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2 COUNCILMEMBER GAUTHIER: Thank you. I

3 have a question for Mr. Broomhall. What US

4 cities are doing this very well? And I know that

5 you're here, you're sort of, you're pitching.

6 However, I'm interested to know if, if you have

7 this information, do cities typically contract

8 out the building of this infrastructure or do

9 cities that typically do this themselves?

10 MR. BROOMHALL: That's a great --

11 that's a great question. So in the most part the

12 model has been contract out rather than do it

13 themselves. I think we're at where it's, it's,

14 it's getting very interesting is where that

15 revenue goes and, and how you offset things like

16 fuel exercise -- excise tax and things like that.

17 So we do get a lot of questions about that.

18 I will say that I've had some

19 interesting conversations in Georgia with the --

20 with the, the councils and with, with the

21 governor down there. Those are very interested

22 in those pieces. I think the predominant model

23 has been, take the federal grants or whatever

24 those grants are, and give, essentially give them

25 to developers to develop out infrastructure. And

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2 then obviously that future revenue sits with

3 whoever they've outsourced that piece to.

4 We don't think that that is in the

5 long-term best interests, interests of local

6 communities. And we are seeing -- we haven't

7 seen anybody take a leadership position on that

8 at this stage in the -- in the US. The model is

9 a little different in some of the European

10 cities. Probably if you wanted to look to the

11 best in breed charging infrastructure deployment

12 in the world, you couldn't go past Amsterdam.

13 Amsterdam has not only sufficient charging

14 infrastructure, but they've also done it very

15 well. Yeah.

16 COUNCILMEMBER GAUTHIER: And what does

17 -- I know that I heard the Councilmember speak,

18 for instance, and I, I think I heard it

19 referenced in other parts of this hearing, that

20 more people would buy EVs if they knew that the

21 infrastructure was there. But I'm curious about

22 what it looks like. Like is it just that we --

23 you build out the infrastructure and then people

24 automatically start buying EVs? Does it

25 typically take like a lot of education or some

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2 type of campaign? What has that looked like in

3 other cities?

4 MR. BROOMHALL: Yeah, it's -- it is a

5 bit of the case that if to the point that was

6 made, the more infrastructure that's put in, the

7 more people will purchase EVs is -- range anxiety

8 is always in the top five around the world. So

9 running out of electricity. I can tell you as

10 somebody who got to a charger the other day with

11 0 percent, I was a little nervous. So range

12 anxiety and, and getting a sufficient charging

13 infrastructure ahead is, is super critical.

14 You do see, particularly in workplace

15 deployments. So we work with some REITs across

16 the country, for example, and they are installing

17 chargers behind closed fences for anchor tenants.

18 And they have seen anywhere between a 5 and 10X

19 increase in staff buying EVs because they know

20 they can charge, charge the vehicles. So there

21 is a bit of a -- there's a little bit of build it

22 and they will come.

23 I guess we're, we're seeing some of the

24 consumer pull and regulatory push around the

25 world that suggests there's enough tailwinds here

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2 that, that the momentum will continue. I'm, I'm,
3 I'm sure you've seen the statistics that are
4 coming out of other parts of the world, but I saw
5 one yesterday which absolutely melted my brain.
6 In China, in the first two weeks of April, they
7 sold 514,000 vehicles. 268,000 were electric.
8 So we, we see this accelerating.

9 The -- probably the, the best curve to
10 look at in regards to uptake of EVs across the
11 world would be Norway. 10 years ago, EVs
12 represented 5 percent of sales. Now they're 90.
13 So we do see that, that accelerating. I, I share
14 the concerns of the Councilmember regarding some
15 of the US based car manufacturers that are
16 slowing down production. Other parts of the
17 world are not.

18 COUNCILMEMBER GAUTHIER: Are there any
19 more questions from members of the -- of the
20 committee for this panel?

21 COUNCILMEMBER AHMAD: I have one
22 question.

23 COUNCILMEMBER GAUTHIER: Sure.

24 COUNCILMEMBER AHMAD: You mentioned you
25 do the whole servicing, installation, servicing,

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2 all of that. Sorry. Again. You do all of the,
3 the entire process. What is the hiring process
4 been? Do you hire people, train them, and, and
5 then deploy them? And so they're your employees?

6 MR. BROOMHALL: They would be -- no.

7 So there is opportunities for local businesses,
8 to your point, you made earlier, to flourish. We
9 don't hire that, that core. We're a very lean
10 core organization and we use a hub and spoke
11 model, so we prefer to partner with the best.
12 And local is always better. So CBRE and JLL
13 provide some overarching project management, but
14 they will use subcontractors that are on the
15 ground locally, and that allows those businesses
16 to grow and flourish over time.

17 You can't -- you can do a degree of
18 remote maintenance for EV chargers, but you also
19 have to do visual inspections and you, you have
20 to look at things like damage, etc., plugs
21 breaking. So there is a, a significant on the
22 ground business and job creation opportunity in
23 front of cities that take a lead in this space.

24 COUNCILMEMBER AHMAD: And if you have
25 any numbers of that projection, we would love

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2 that. And I'm sure we -- our own Transportation
3 Department as well as our city planning is
4 probably looking at all those numbers as to what
5 the job creation model could look like.

6 I also wanted to -- the Zipcar piece
7 here and I forgot to ask the previous panel about
8 placement of these. Do you have -- as, as you
9 are, you know, putting out these Zipcars, are you
10 -- because you don't do the -- you just go to
11 whatever chargers there is or you have your own
12 installed chargers just for getting them renewed,
13 right? But not -- you, you don't have charges
14 elsewhere just on your property, on your company.

15 MR. SOWERS: So we utilized a variety
16 of methods to make sure that our EVs are charged.
17 So our preferred method is having a dedicated
18 Level 2 charger that lives at the home location
19 of the vehicle. And we rely on other property
20 owners, whether it's the city or multifamily
21 residential or private parking operators that
22 have installed those chargers. And so we're
23 using those chargers. But in other cities, we've
24 also done shuttling to DC fast chargers. So we
25 rely again on third party charging operators and

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2 their equipment.

3 And we've also used mobile charging

4 where we've provide -- where we've brought

5 charging to the vehicle where it's located. So

6 we've, we've -- we're experimenting with, I

7 guess, an all the above approach to, to try to

8 get EVs out as quickly as possible.

9 COUNCILMEMBER AHMAD: Thank you.

10 COUNCILMEMBER GAUTHIER: Great. Thank

11 you so much for your testimony.

12 MR. SOWERS: Thank you.

13 COUNCILMEMBER GAUTHIER: Will the clerk

14 please call the next panel of witnesses to

15 testify on the resolution?

16 THE CLERK: The third panel includes

17 Ignatius Fletcher Jr., instructor, ATEI Local 98

18 and IBEW, Thomas Bonner, senior, senior manager

19 of state and government affairs at PECO.

20 COUNCILMEMBER GAUTHIER: Good

21 afternoon. Please state your name for the record

22 and proceed with your testimony.

23 MR. FLETCHER: My name is Ignatius

24 Fletcher Jr. My name is Ignatius Fletcher Jr.

25 I'm a 19-year member of IBEW Local Union 98 and

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2 I'm a fourth-generation electrician and I'm
3 currently an instructor at the Apprentice
4 Training for the Electrical Industry for Local
5 98's Apprentice Training.

6 In an effort to reduce greenhouse gas
7 emissions and mitigate the negative effects of
8 climate change for future generations of
9 Philadelphia residents, the transition from
10 traditional automobiles to electric vehicles is a
11 necessity.

12 In order to accomplish these hefty, yet
13 attainable goals, the need for an increased EV
14 charging network and maintenance workforce is
15 imperative. Both the EV charging network and
16 workforce is important to Local 98 and to the
17 IBEW around the country and specifically in our
18 city.

19 Apprentice training through education
20 and training in modern, modern technologies such
21 as EV charging systems will work toward attaining
22 the goals of a better and cleaner environment.
23 These goals come with the caveat of having the
24 equipment installed safely, on time, and
25 reliably. The IBEW and Local 98 are prepared

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2 with a skilled and educated workforce that only

3 the IBEW can produce.

4 In order to reach our goal of reducing

5 greenhouse gas emissions by increasing the use of

6 electric vehicles, there is a need to install and

7 maintain many new electric vehicle charging

8 systems, EVCS, throughout the city of

9 Philadelphia.

10 The urban environment poses the most

11 challenging to EVCS infrastructure. Urban cities

12 are often overcrowded and a large majority of the

13 homes in these cities lack driveways or space for

14 residential EVCS. This requires the need of a

15 very strategic plan of where to develop and

16 locate EVCS within cities such as Philadelphia.

17 Without a well-thought-out plan for

18 map -- for mapping public EVCS within the city,

19 range anxiety and lack of infrastructure will

20 continue to slow the EV market as a whole.

21 COUNCILMEMBER GAUTHIER: Thank you.

22 MR. FLETCHER: This can limit users'

23 options for charging and may deter others from

24 using EVs altogether. Increasing the amount of

25 public EVCS available can help to accommodate

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2 residents of Philadelphia and encourage the
3 change from our traditional automobiles to EVs of
4 all kinds, including the battery electric
5 vehicle, the hybrid electric vehicle, and the
6 plug-in hybrid electric vehicle.

7 I have been a full-time instructor for
8 over eight years and have been involved in many
9 aspects of the electrical industry, specifically
10 with training, which include safety, from OSHA,
11 the National Electrical Code, life safety
12 systems, and emerging technologies.

13 Emerging technology courses I teach to
14 apprentices and journeymen alike include
15 photovoltaics or solar courses, lighting and
16 control systems, energy storage and micro grid
17 training and certification, as well as electric
18 vehicle charging systems.

19 EVCS is a technology that the IBEW and
20 NECA have been focused on for many years now.
21 Electrical Vehicle Training Program, EVITP, is
22 the first certification course for installing
23 electric vehicle equipment in the US and was
24 developed in 2011. My father, a retired member
25 and instructor, was involved with the development

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2 and adoption of that -- of that course's use in

3 IBEW when it first started.

4 IBEW and NECA partnered together to

5 install the first EVCS in Montgomery County in

6 2011 at King of Prussia Plaza. While EVs and

7 these charging equipment may be a new technology

8 to many, it is something that we have been

9 involved with for quite some time.

10 Local 98 members and apprentices can

11 and have received training in the EVITP program

12 to become certified installers. Our current

13 apprentice curriculum includes EVITP courses in

14 the five-year apprenticeship program. The EV

15 course includes lessons on electric vehicles,

16 electric vehicle charging equipment, the National

17 Electric Code, advanced load calculations, site

18 assessment, commissioning, and troubleshooting.

19 At the completion of this 18-hour

20 course, the students must take an online

21 certification exam, a third party provided

22 assessment from EVITP. This course and

23 documentation provides our members with knowledge

24 and skills related to the charging products and

25 associated equipment on the market today.

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2 Electrical workers completing this training go to
3 work with the ability to implement best practices
4 in areas such as charging station equipment,
5 infrastructure site assessment, load
6 calculations, installation, commissioning, and
7 troubleshooting.

8 The key to an electrical installation
9 or maintenance is to have a knowledgeable and
10 experienced electrician working on and completing
11 the project. Our IBEW and Local 98 electricians
12 understand the challenges and safety concerns
13 that come with this equipment.

14 Traditional troubleshooting and testing
15 techniques are not enough and, in many cases,
16 will not work on EVCS. Testing of this equipment
17 will require it to be energized in order to gain
18 proper readings and information. Only a
19 qualified person is able to complete these
20 projects in a safe and timely manner, with the
21 reliability that the equipment will work as
22 intended.

23 A qualified person as defined by NFPA
24 70, the National Electrical Code, is one who has
25 skills and knowledge related to the construction

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2 and operation of the electrical equipment and
3 installations and has received safety training to
4 recognize and avoid the hazards involved.

5 That definition describes all of our
6 IBEW Local 98 members. Our members go through a
7 five-year state accredited apprenticeship program
8 which includes 1,080 hours of classroom activity
9 and training and 8,000 on the job training hours.
10 Throughout this program, they receive OSHA 30
11 training, NFPA 70E, which is electrical safety
12 training, and EVITP training. I can't imagine
13 anyone more qualified for EVCS installations than
14 our dedicated members.

15 While there are many hurdles and
16 questions to overcome with building an, an EVCS
17 infrastructure, the city of Philadelphia will
18 benefit largely from the transitions to electric
19 vehicles. The issues in front of us are far
20 outweighed by the benefits of EVs and other
21 emerging technologies. The environmental impact
22 will help the generations that come after us, the
23 reduction of oil dependency will benefit people
24 now and, in the future, and the jobs that are
25 created for qualified electricians, other trades,

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2 and all people will have a lasting effect. Thank

3 you.

4 COUNCILMEMBER GAUTHIER: Thank you.

5 Please state your name for -- please state your

6 name for the record and proceed with your

7 testimony.

8 MR. BONNER: Yes. Hi. My name is Tom

9 Bonner. I'm senior manager of state government

10 affairs with PECO. As you know, PECO is the

11 electric company that serves Philadelphia and the

12 suburban counties. Thank you for the opportunity

13 to testify here today.

14 In addition to leading the company's

15 legislative policy efforts, my responsibilities

16 also include collaborating with the Philadelphia

17 Office of Sustainability and the Philadelphia

18 Energy Authority. I've been actively involved in

19 PECO's efforts to support transportation

20 electrification since 2009, including

21 representing the company on City EV Task Force

22 that was organized by Councilman Squilla back in

23 2016, 2017, and also the, the EV task force that

24 was held in 2023.

25 Take a moment just to commend and thank

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2 Chris Puchalsky, Anna Kelly, Akshay Malik, they
3 did a really extraordinary job organizing those
4 sessions, and I think they're going to produce
5 for you a very productive plan to help inform the
6 city strategy for EVs going forward. So really
7 compliment them on that effort.

8 We've also been an anchor tenant in the
9 Drive Electric PA Coalition working statewide on
10 EV issues since its inception, and have
11 collaborated with the Delaware Valley Regional
12 Planning Commission. Really looking at these
13 issues on a regional basis, which is critically
14 important. People don't travel just locally or
15 stop at city or municipal lines. We have really
16 a regional transportation system.

17 Assisting our customers and communities
18 with their efforts to advance electrification is
19 a key component of our company's path to clean
20 strategy, both to reduce our own greenhouse gas
21 emissions and assist our customers and
22 communities in their own efforts.

23 We do not own or operate publicly
24 accessible EV charging stations. Pennsylvania
25 law is still developing in terms of defining what

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2 the role is for public utilities in any form of
3 ownership of public charging stations, and at
4 this time the private sector and both equipment
5 developers and site hosts are taking that lead
6 role. The question, I think, still has to play
7 out as to really in terms of ensuring equitable
8 access if there is a role or not, for utilities
9 in earn -- owning charging stations to fill in
10 gaps.

11 Right now, with the federal dollars
12 that are available, available through the IIJA,
13 both the NEVI program and the Charging and
14 Fueling Infrastructure Program, there does seem
15 to be good momentum for providing that access.
16 But I think time will tell there whether there is
17 a role that, you know, we ultimately get bought
18 in and asked to play.

19 Where we have focused our efforts is on
20 providing incentives, technical support and
21 education to support the development of the EV
22 market.

23 To summarize our efforts, first in
24 terms of our own fleet, we are aiming -- the Path
25 to Clean says we're going to reduce our

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2 greenhouse gas footprint by 50 percent from a
3 2015 baseline by 2030, and then the goal is to
4 achieve net zero by 2050.

5 For our vehicles in our fleet, we're
6 using a combination of full battery electric
7 vehicles, plug-in hybrid vehicles, and then for
8 some of our heavier duty equipment, what you do
9 is you electrify the equipment and the cab, but
10 the vehicle is still operating on liquid fuels,
11 at least, you know, for the time being.

12 There are some particular constraints
13 for utilities. We operate on what's called a, a
14 mutual assistance model, where when you have a
15 major event like Hurricane Sandy or the ice storm
16 in 2014, crews from all over the country will
17 come and assist us with power restoration, and
18 when the event hits there, we do the same for
19 them. So you have to be able to ensure that
20 those heavy duty bucket trucks can travel across
21 country.

22 Right now, there's not the
23 infrastructure to support charging heavy duty
24 vehicles moving all across the country. So we,
25 we may not ultimately be able to fully electrify

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2 all of our vehicles, but we're watching the
3 technology develop and helping advance that.

4 Was really pleased we were the, the
5 title sponsor of the Philadelphia Auto Show's e-
6 Track. We've done something with the auto show
7 back since 2020, and we premiered a fully
8 electric bucket truck at that event. It was
9 great. It drew a ton of attention. People from
10 all over the floor of the auto show could see it
11 and came over to check out the all-electric
12 bucket truck.

13 We offer infrastructure incentives so
14 you -- applicants can achieve, under our public
15 benefit charging program, up to 50 percent rebate
16 on the cost of installing EV infrastructure.
17 That -- the public purpose program includes
18 fleets, transit and paratransit, school buses,
19 taxi and ride share vehicles, apartments, and
20 then locations that are made available to the
21 general public. We have enhanced incentives that
22 are also available for charging stations that are
23 located in environmental justice communities.

24 Our current program expires at the end
25 of this year, but as part of our recently filed

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2 electric rate case, we applied to extend that
3 through the end of 2026.

4 For rate incentives, as the market for
5 EV fast-charging service, it's still in its
6 developmental stage. We offer what's called a, a
7 demand charge relief. So when someone puts in a
8 fast charger, even if that charger is only used
9 once a month, that will set the bill for that one
10 -- that charger being used once a month. As you
11 build up demand, those demand charges can be a
12 bit of an impediment to getting the
13 infrastructure out there.

14 So we reduce those charges by 50
15 percent for the first three years of operation
16 while they build up utilization levels. You
17 don't want to do that everywhere because then you
18 never build up the utilization levels if people
19 are getting free electricity. So you really want
20 to balance the market. You want to get enough
21 infrastructure out there to address that range
22 anxiety that Councilmember Ahmad talked about,
23 but you don't want to build everywhere because
24 it's expensive and you can't ever get to the
25 point of commercial viability. So you're always

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2 trying to strike that balance there.

3 For residential customers, we also
4 offer time of use rates so that people can do
5 their charging overnight when there's lots of
6 extra capacity on the grid and extra supply and
7 they can get a cheaper rate for that.

8 In terms of operational support, we
9 have subject matter experts that have worked on
10 pretty much every EV charging station
11 installation project that has come into our
12 region. So they've kind of seen it all, know it
13 all, and can work with the customer to meet their
14 needs.

15 As soon as a project is filed with us
16 through a service and meter application for EV
17 charging, it gets assigned to one of our subject
18 matter experts and they will work hand in hand
19 with the customer from really application to
20 energization. It's a tough word to say,
21 energization.

22 Public education. As I think everyone
23 has noted, there's still a very low level of
24 knowledge and understanding of issues related to
25 EVs. So we work hard to get out into the

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2 community and educate the public on EV issues.
3 We lead numerous STEM education events. I've
4 been involved in a lot of those. That is --
5 those are some of the most fun hours of, of my
6 year, when I get to do those. We have
7 presentations to community organizations and our
8 EV website offers -- offers a wide range of tools
9 for the public, including how the -- how much
10 they will save in fuel, how much they will reduce
11 their carbon footprint, and also their, you know,
12 the, the bottom line, how much it's going to save
13 their wallet to shift from gasoline or diesel to
14 an electric vehicle.

15 Grant support is huge right now. We
16 talked a little -- I know everyone has talked
17 about the NEVI program and the IIJA. So the
18 state of Pennsylvania overall was provided \$151
19 million to support the development of its fast-
20 charging network. And we've been pleased to
21 partner with PennDOT since day one on the
22 implementation of that.

23 One thing we have stressed to them is
24 you don't want to just meet the minimum standards
25 of, of the NEVI program and put chargers 50 miles

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2 away. When you have a densely populated area,
3 like the Philadelphia area, that's accountable
4 for about 40 or 50 percent of all the EVs in the
5 state, you need to build out a radial network so
6 that people can come in and out of the city along
7 different routes and have access to charging.

8 The other advantage of that is instead
9 of building a handful of huge charging hubs that
10 have very expensive electric infrastructure and
11 really long lead time in building out that
12 infrastructure, you can build smaller facilities
13 that are serving a broader geographic area and
14 get them built faster and cheaper. And PennDOT
15 has done a fantastic job. They're one of the
16 national leaders. I think they were the second
17 state to get a project energized. There are some
18 states that haven't even put out their first RFP
19 yet. PennDOT's on their third round. So really
20 can't compliment them enough.

21 We've also worked closely with the city
22 and the DVRPC on applications under that CFI
23 program. Unfortunately, no one in Pennsylvania
24 won first round CFI grants, but we're really
25 pleased that the city and DVRPC are now jointly

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2 working together on a joint regional application
3 for the CFI program. We are, you know, happy to
4 again be an anchor tenant in that effort and do
5 everything we can to support that.

6 And finally, as you know, it has been
7 mentioned earlier, the city won an EV workforce
8 development program. So I know the IBEW is
9 working with that. We're also working to develop
10 content and provide training on how to work with
11 the utility on the -- on the installation of
12 charging stations.

13 So, in summary, creating an EV friendly
14 city with infrastructure that supports all forms
15 of transportation and that includes transit, that
16 includes passenger vehicles, that could include
17 electric bikes. I was talking to an electric
18 bike guy just the other day. It will require
19 planning, collaboration, and public engagement.
20 Establishing this infrastructure in an urbanized
21 environment does present some unique challenges,
22 but the benefits to the environment and the long-
23 term cost savings more than justify that effort.

24 So we really commend you on holding
25 this hearing today. We've been proud of the

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2 efforts we've undertaken over the last 15 years

3 to work with the city on this, and we know that's

4 only going to accelerate and become more

5 important in the years ahead. So thank you.

6 COUNCILMEMBER GAUTHIER: Thank you so

7 much. Councilmember Ahmad.

8 COUNCILMEMBER AHMAD: Yes. Thank you

9 so much for that testimony. I'll ask Ignatius

10 around -- first of all, thank you to your father,

11 because I actually went -- go to that King of

12 Plaza --King of Prussia Plaza and charge my car

13 there. So --

14 MR. FLETCHER: Thank you.

15 COUNCILMEMBER AHMAD: So, you know,

16 what I understand, and correct me if I'm wrong,

17 for installation, you need a certified

18 electrician to do the installation. I'm told for

19 maintenance you don't need that. Is that true?

20 MR. FLETCHER: So from, from my

21 understanding, there's a couple different

22 parameters to follow under different parts of

23 installations, specifically through the

24 infrastructure plan, through President Biden.

25 In that plan, it mentioned having

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2 certification in order to install anything that
3 was funded through that grant. And in that, it
4 also mentioned the EVITP training specifically.
5 So anything that is funded by that should have a
6 certified, not only electrician, but someone
7 certified in electric vehicle installation.

8 I don't believe that there's any
9 wording in there specifically for maintenance. I
10 think it is just for installation. However, just
11 along with any type of electrical installation,
12 anytime you do have electrical installation or
13 maintenance, you should have an electrical
14 licensed, you know, contractor to be able to do
15 that work.

16 And then whenever you have maintenance,
17 often, there is the need to do energized
18 electrical work, which would be the case with
19 electric vehicle charging systems. And once you
20 have the need for energized work, you need to
21 have someone who has training, specifically an
22 NFPA 70E for that. That's -- and that's
23 according to OSHA and the National -- the
24 National Fire Protection Agency that says that
25 you have to have someone who's qualified for

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2 those.

3 So where it doesn't say for

4 maintenance, maybe specifically, in still a

5 general application of how an electrician should

6 work is they should have those certifications

7 when they're doing that energized work.

8 COUNCILMEMBER AHMAD: And we can talk

9 about whether that clarification needs to be

10 made, right? And, and how we include that in

11 something.

12 MR. FLETCHER: Yeah, I --

13 COUNCILMEMBER AHMAD: You were going to

14 say?

15 MR. BONNER: I was just going to add

16 one thing. So certainly the maintenance on the

17 actual electric interconnection and the equipment

18 is one thing. Another factor to keep in mind is

19 the maintenance of the IT connection and the

20 telematics --

21 COUNCILMEMBER AHMAD: Yeah.

22 MR. BONNER: -- in the charging

23 station. Because a lot of literature I've read,

24 when a station is nonfunctional, it is at least

25 as common that it's the telematics that's the

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2 problem --

3 MR. FLETCHER: Yeah.

4 MR. BONNER: -- and the communication

5 -

6 MR. FLETCHER: And networking. Yeah.

7 MR. BONNER: -- not the actual, you

8 know, physical charging station.

9 COUNCILMEMBER AHMAD: So another

10 question, which we really haven't discussed much

11 here. How much area would you think it would be

12 necessary for an EV station with the canopy of

13 some sort? Some -- is there a need for

14 protection outside of the freezing, really hot?

15 I, I don't know -- because we don't have those at

16 all. They're not like our gas stations, right?

17 So I just wondered, what do you

18 envision, since, you know, you folks work with

19 these, what is the optimal user experience to

20 have any kind of canopy or shade or something?

21 Is that necessary for the equipment, and is that

22 something that would, you know, make it more

23 attractive?

24 MR. FLETCHER: So, for the equipment

25 itself, to my understanding, I don't think

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2 there's any protection necessarily necessary for

3 the equipment itself. I mean, the electrical

4 aspects of it, the over current protection and

5 every -- breakers and everything else, protecting

6 the wires and everything, is more --

7 COUNCILMEMBER AHMAD: They all have.

8 MR. FLETCHER: -- than sufficient

9 during installation. One of the things I would

10 say is, usually physical protection is a good

11 aspect to have, because obviously you have cars

12 pulling up to these stations, and, you know, as

13 you've seen just anywhere in the city and

14 country, drivers often make mistakes, whether it

15 be you think of like the yellow bollards that are

16 put up in front of a strip mall that have glass

17 fronts so they don't accidentally go through the

18 glass fronts. Same thing with a charging

19 station.

20 Sometimes it's best to have bollards in

21 certain locations to prevent that. Curbs. If

22 there's a curb there, that may help to prevent it

23 from being hit as well. I think more of the

24 physical damage related to cars.

25 The other aspects for protection is the

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2 cord itself. The cord is the most common issue
3 that you have outside of networking. The most
4 common physical problem is cord damage. It's run
5 over, it's not taken care of, and it could be
6 stolen as well, to be honest with you. Theft is
7 an issue with it.

8 So as one of the previous speakers
9 said, a retractable type of cord would be ideal,
10 although that comes to -- with an expense there.

11 The other types of protection, I think,
12 would be more related to maybe the user's
13 protection, you know, in a well-lit area, closer
14 to a building, where they would feel more
15 accommodating to be able to use it and safe in
16 that -- in that environment. But outside of
17 those -- outside of those protections, I don't
18 really think of anything else on the electrical
19 side.

20 COUNCILMEMBER AHMAD: The, the reason I
21 ask is, Chicago just had this big issue when they
22 had a very -- they had a snowstorm, ice storm,
23 really, and the chargers were dysfunctional, and
24 cars were piling up apparently. We don't have --
25 You know, with climate change, we don't have as

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2 cold winters here anymore, but. And I also heard
3 that heat, very high heat, is also a problem.

4 MR. FLETCHER: So, again, just going,
5 going off of my experience, and I --

6 COUNCILMEMBER AHMAD: Right.

7 MR. FLETCHER: -- might not be 100
8 percent, but usually the electric vehicle
9 charging systems and equipment, I don't think are
10 that greatly affected by the cold and heat. I
11 think that's more related to the batteries in the
12 electric vehicle themselves.

13 COUNCILMEMBER AHMAD: Okay.

14 MR. BONNER: The batteries in an
15 electric vehicle and batteries in general, when
16 it's extremely hot out, they get -- they create
17 heat as well. So the extra heat adds on to the
18 likelihood of damage, or would be similar to
19 overcharging the battery.

20 COUNCILMEMBER AHMAD: Okay.

21 MR. BONNER: Whereas cold weather, the
22 electrons basically inside the battery, which are
23 chemical based, they, they don't move as freely.
24 They're almost like us. They're too cold to
25 move. So they react slower, and the charging

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2 times get reduced because of that.

3 COUNCILMEMBER AHMAD: Okay. Thank you.

4 Quick --

5 MR. BONNER: Yeah. I feel cautious in

6 adding anything to what a fourth-generation

7 electrician has to say but I, I have been an EV

8 owner since 2018. In general, in really cold

9 weather, I think you -- a vehicle probably lose

10 about 30 percent --

11 COUNCILMEMBER AHMAD: Yeah.

12 MR. BONNER: -- of its range. That's

13 been --

14 COUNCILMEMBER AHMAD: I've noticed

15 that. Yeah.

16 MR. BONNER: -- my experience. I've

17 never found to have significantly reduced range,

18 even in hot weather, except, you know, to the

19 extent you're really running the air condition

20 high.

21 COUNCILMEMBER AHMAD: Right.

22 MR. BONNER: But I, I don't think it's

23 a big issue with hot. In terms of charging

24 speed, I -- there is certainly a little bit of

25 that factor of the --

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2 MR. FLETCHER: Yes.

3 MR. BONNER: -- electrons moving more
4 slowly, but there's, there's no reason the
5 equipment will not function. They have EVs all
6 up in Canada. There are EVs in Alaska and
7 Norway. Their climate's a lot colder than ours,
8 that are, you know, leaders in electrification.

9 COUNCILMEMBER AHMAD: Right.

10 MR. BONNER: And in terms of canopies,
11 I think I have seen some examples of like solar
12 canopies that are being put in --

13 COUNCILMEMBER AHMAD: Yes.

14 MR. BONNER: -- where you -- they're
15 putting solar panels on the top of canopies and
16 getting some emission free electric that way. In
17 general, you could say, "Well, canopy will make
18 it more comfortable for me to sit in my car while
19 I charge." But when a business owner puts an EV
20 charging, they generally would prefer you go --

21 COUNCILMEMBER AHMAD: Two of us.

22 MR. BONNER: -- into their store while
23 they're charging. So I think there --

24 MR. FLETCHER: Yeah.

25 MR. BONNER: -- may be a little bit of

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2 a push and pull on that.

3 COUNCILMEMBER AHMAD: Okay. And my

4 last question is, is PECO -- Exelon and PECO

5 involved in any -- you know, battery size and

6 battery capacitation is an issue for our cars,

7 right? Are you guys involved in that research at

8 all? Is that in your lane?

9 MR. BONNER: In terms of like second

10 life batteries, battery recycling, those issues

11 -

12 COUNCILMEMBER AHMAD: Right.

13 MR. BONNER: -- or just the quality of

14 batteries going into vehicles?

15 COUNCILMEMBER AHMAD: Quality and

16 capacity of that and including also concurrently

17 having the fast chargers. To have the fast

18 chargers be able to, to charge the battery.

19 MR. BONNER: Oh, okay.

20 COUNCILMEMBER AHMAD: The battery has

21 to be right sized for that as well.

22 MR. BONNER: Yeah. So there are some

23 companies that are building EV charging equipment

24 that have batteries that are integrated into it.

25 It makes the charging station more expensive, but

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2 it is a interesting idea, because one thing we
3 don't want -- well, if we want to avoid to the
4 greatest extent possible, is people charging
5 during those hottest peak summer days, the
6 hottest hours.

7 Most EV charging, we can offer
8 incentives and people can manage their own demand
9 to keep it out of those peak hours. But if
10 somebody is driving along the highway, when are
11 they going to stop? They're going to stop when
12 they want to stop to eat. And unfortunately,
13 that's the same time as the peak.

14 COUNCILMEMBER AHMAD: Yeah.

15 MR. BONNER: So some of these companies
16 are saying, "Well, let's put batteries in so that
17 we don't have to be drawing off the grid at peak
18 times and we can get a cheaper rate that way."
19 All that stuff is still kind of like evolving,
20 but it's very interesting.

21 That's also a question, like when
22 transit systems are putting in charging,
23 especially like what they call en-route charging,
24 where the bus will stop for a couple of minutes,
25 get a booster shot of charge, and, you know, they

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2 can either put in a battery that provides that
3 booster shot in the, the peak hours, or, you
4 know, they can, you know, build their strategy so
5 that they're bypassing the charger during the
6 peak hours.

7 So there's a lot of stuff that's still
8 pretty early on in development. And that's where
9 the vehicle manufacturers, the utilities, the
10 municipalities, we all need to be working
11 together and talking to each other, because what
12 we want as a utility, we want to make the most
13 optimal use of our grid. The grid is built to
14 serve that hottest summer day. Just about all
15 other times, we've got extra capacity. And to
16 the extent that more people are using it during
17 the lower capacity times, that puts downward
18 pressure on everybody's electric rates. And
19 that's a good thing for everybody. And we just
20 need to work together to keep the, the charges
21 out of the peak times.

22 COUNCILMEMBER AHMAD: Thank you. Thank
23 you.

24 MR. BONNER: I, I hope that answered
25 your question.

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2 COUNCILMEMBER AHMAD: Yes, it did.

3 Thank you.

4 MR. BONNER: Okay, great. Thanks.

5 COUNCILMEMBER GAUTHIER: I have a
6 question, Mr. Bonner.

7 MR. BONNER: Yes.

8 COUNCILMEMBER GAUTHIER: You talked
9 about PECO not owning any of the charging sites
10 at this time. Could you expound on what the
11 implications are for, you know, related to
12 whether PECO owns or does not own stations?

13 MR. BONNER: Yes. So, Pennsylvania,
14 the law is really silent on whether utilities can
15 own charging stations and put the cost of that
16 investment into the rates that people pay for
17 their electricity. I don't think there's anybody
18 who envisions -- and, and there are other states
19 where utilities own charging stations.

20 I don't think anybody envisions a
21 situation where I drive an EV, I drive up to a
22 charging station, and I get power that's
23 subsidized by somebody else. The question is,
24 can you put the cost of installing the charging
25 station in rates and then collect it back over,

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2 you know, 10, 20 years?

3 Pennsylvania law just doesn't speak to

4 it at all. There are some participants in the

5 market who say -- who say, "No, we should never

6 let utilities own and operate, because that's an

7 impediment to the private sector, the non-

8 utilities." There are others who say there are

9 parts of the, the private market that are never

10 - that are never going to be served. You know,

11 those underserved communities we talked about

12 earlier, that's all still being sorted out in

13 Pennsylvania.

14 COUNCILMEMBER GAUTHIER: So if PECO

15 owns stations, they might be cheaper for people

16 is that?

17 MR. BONNER: The concern would be

18 because we're building -- we would be building it

19 within the regulated model, there's less risk, so

20 we could, in theory, you know, undercut the --

21 somebody who was developing them with a higher

22 risk.

23 COUNCILMEMBER GAUTHIER: I see. And

24 then I imagine there might be implications on

25 like where stations are.

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2 MR. BONNER: I would say if some -- as
3 a public utility, we operate under a universal
4 service model. So you could say we would be well
5 suited to providing a public access charger that
6 might not be economically, you know, attractive
7 to somebody else. And all that's still, you
8 know, I think we're all figuring it out and the
9 market's still in really early-stage development.
10 There have been bills introduced since, I think,
11 2018 in the legislature. Most of them have
12 carved out a underserved community role,
13 potentially for utilities, but none of them have
14 been able to make it all the way to our
15 governor's desk.

16 COUNCILMEMBER GAUTHIER: Thank you.
17 And a question for Mr. Fletcher. If -- I think I
18 heard the city say that we had a goal of, or that
19 we need some 20,000 charging stations or
20 somewhere along those lines. How many jobs would
21 it create if we were to go about, you know, if we
22 were to try to reach that goal?

23 MR. FLETCHER: I can't -- I can't speak
24 on numbers for jobs. I'm an instructor at the
25 Apprentice Training. So that would be more on

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2 the business office side of our Local.

3 All I can say is that whatever the

4 workforce that would be needed, I'm confident

5 that Local 98 would be able to sustain that

6 workforce and help that workforce, both in what

7 we currently have, what we continue to do, and

8 even through other programs like Plug In Philly,

9 to help others be able to go through, whether it

10 be our program or a portion of our program, to be

11 able to install it. I've trained three years'

12 worth of apprentices, which is over 225

13 apprentices have gone through the training. I

14 currently have 75 more apprentices right now that

15 are in the midst of training. And I've taught a

16 couple hundred journeymen the course as well,

17 since it's -- since we've really hit the ground

18 running with, with all that.

19 But as far as the number of jobs that

20 would create, I don't have any good numbers on

21 that. I apologize.

22 COUNCILMEMBER GAUTHIER: Thank you.

23 That's okay. Just curious. Any other questions

24 from members of the committee for this panel?

25 COUNCILMEMBER AHMAD: No, we're good.

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2 COUNCILMEMBER GAUTHIER: Okay. Thank
3 you so much for your testimony today and for your
4 work.

5 MR. FLETCHER: Thank you.

6 MR. BONNER: Thank you very much for
7 inviting us.

8 COUNCILMEMBER GAUTHIER: I want to note
9 for the record that we have written testimony
10 that was submitted by the following people,
11 Natasha Fackler, infrastructure coordinator at
12 PennDOT, Ariella Maron, executive director of
13 Delaware Valley Regional Planning Commission,
14 Michael Bernhardt, PhD, director of
15 transportation at University of Pennsylvania,
16 Devi Ramkisson, executive director of the
17 Sustainable Business Network, Jennifer Reagan, an
18 EV owner, and, and we appreciate the submission
19 of that testimony.

20 Is there anyone else here today to
21 testify on this resolution? Seeing that there's
22 no one else here to testify on the resolution,
23 this concludes the business of the Joint
24 Committee on the Environment, as well as the
25 Creative and Innovative Economy, and we will

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2 adjourn for today.

3 The public hearing on Resolution No.

4 240172 is recessed to the call of the chair. So

5 thank you so much, everyone, for your attendance.

6 Thank you, Councilmember Ahmad.

7 COUNCILMEMBER AHMAD: Thank you.

8 COUNCILMEMBER O'ROURKE: Thank you.

9 - - -

10 (Joint Committee was adjourned.)

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2 CERTIFICATE OF TRANSCRIPTIONIST

3

4 I, ERICA PARADYSZ, Legal Transcriptionist, do

5 hereby certify:

6 That the foregoing is a complete and true

7 transcription of the original digital audio recording

8 of the proceedings captured in the foregoing matter.

9

10 IN WITNESS THEREOF, I have hereunto set my hand

11 this 13th day of May, 2024.

12

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Erica Paradysz

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