CITY COUNCIL CITY OF NEW YORK -----Х TRANSCRIPT OF THE MINUTES Of the COMMITTEE ON TRANSPORTATION ----- Х April 18, 2016 Start: 10:28 a.m. Recess: 12:10 a.m. HELD AT: Council Chambers - City Hall B E F O R E: YDANIS A. RODRIGUEZ Chairperson COUNCIL MEMBERS: Daniel R. Garodnick James Vacca Margaret S. Chin Stephen T. Levin Deborah L. Rose James G. Van Bramer David G. Greenfield Costa G. Constantinides Carlos Menchaca I. Daneek Miller Antonio Reynoso Donovan J. Richards

A P P E A R A N C E S (CONTINUED)

Nilda Mesa, Director NYC Mayor's Office of Sustainability

Keith Kerman, Chief Fleet Officer Department of Citywide Administrative Services, DCAS

Will Nicholas, Government Relations Manager Tesla Motors, Incorporated

Kevin Miller, Director Public Policy Charge Point

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2 [sound check, pause] 3 CHAIRPERSON RODRIGUEZ: Good morning and 4 welcome to today's hearing of the New York City 5 Council Transportation Committee. I am Ydanis 6 Rodriguez, Chair of the Committee, and I am joined by 7 my colleague Council Member Constantinides, Rose, 8 Vacca and Lander. As we kicked off Earth Work the--9 in Union Square yesterday, I saw how motivated our 10 city is to lower our collective impact on the 11 environment. Today's hearing is directly tied to 12 this goal focusing specifically on how to 13 considerably reduce emission output related to 14 vehicles. We will vote on a resolution and consider 15 legislation aimed at finding alternatives to fossil 16 fuel burning cars that remain so prevailing on our 17 Today, we will also vote on Resolution 1013 streets. 18 sponsored by myself and Council Member Constantinides 19 that would officially designate Earth Day this year, 20 this coming Friday Care-Free Day in New York City. 21 This initiative announced last month is designated to 2.2 lower our reliance on cares in New York City, 23 encourage carpooling, public transportation--

transportation and active transportation such biking

or walking at the same time that we recognize that

many neighborhoods, especially in Queens and 2 3 Brooklyn, they have to rely on cars because they 4 don't have other alternatives. This landmark day in 5 New York City will be just the first of an annual celebration of the many options New Yorkers have to 6 7 move about. The last organization that came on board 8 supporting this initiative are Catholic Church with 9 Cardinal Ballen (sp?) District 37 related in 32 BJ. Working with this strong support of the 10 Administration we will close down several area--11 12 several areas to car traffic in the city especially 13 Broadway from Union Square to 23rd Street area around 14 NYU and Washington Heights, Wadsworth from 173rd to 15 177, allowing pedestrians to foot the public space 16 without fear of moving vehicles. We have seen 17 tremendous success from similar initiatives in cities 18 across the world including Paris last year managing 19 Bubble Car, and we want to regain our status as a 20 global leader on climate change and sustainability efforts. 21

I want to remind everyone that Earth Day is again this coming Friday, and we ask everyone to please leave their cars including myself that own a car. I'm one of those 1.4 million New Yorkers that

have a car, and this coming Friday I have to find a way on how to take my daughters to the two school, keep going to my business as council member, but only using public transportation. If we are able, we can commute to work using bike, train, buses and then we can help our environment and, therefore, to save our planet.

9 We will also focus today on the steps the city is taking to reduce bill coordination on a 10 11 larger scale and hear Intro 1124 also sponsored by Council Member Constantinides and myself. This bill 12 13 will require the Department of Transportation to 14 create a pilot program for on-street charging 15 stations for electric vehicles. While much of our 16 city fleet [coughs] is already more energy efficient 17 than the typical fuel burning vehicles that continue 18 to roll off the assembly line especially given the 19 low price of gas today we can continue to push the 20 envelope and drive more demand to more efficient 21 options. We can do the same for private vehicle's 2.2 owners who are willing to spend a little more to meet 23 Through an on-street pilot program for a bit less. electric vehicle charging stations, New Yorkers will 24 have more access and option to recharge easing fears 25

over running out of batteries when driving. 2 It will 3 also add tangible structures to our streets helping 4 New Yorkers to realize that electric vehicles are an entirely suitable option because the city is 5 investing in more efficient infrastructure as well. 6 7 Over the weekend I read about how gas stations are 8 slowly disappearing downtown creating a fuel desert 9 that can be particularly hard on drivers and sometimes it can put the city in danger. We lived 10 11 that experience with Sandy, and when--when it took so 12 many blocks for someone to go and get gas. But if we 13 replace this gas station with charging docks on the street throughout the area, we can drive a shift away 14 15 from fuel burning cars and more readily reduce our emission output as a whole. We are interested in 16 17 hearing from the Administration their views on these 18 pieces of legislation, as well as the strategies and 19 method--methods they are employing to reduce our 20 emission totals from vehicles as the 80 by 50 year 21 plan initiative by Mayor Bill de Blasio. If there 2.2 are challenges to the bill, what can we do to 23 overcome them and further incentivize electric vehicle use in our city? What can we do to drive 24 25 down care use as whole whether through the

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installation of more protected bike lanes, investment 2 3 in mass transit, or crossing transit deserts in 4 Eastern Queens and Southeast Brooklyn. I'm eager to hear about these steps and again invite you all to 5 take part in Care-Free Day NYC this Friday. 6 With 7 that, I now will call my colleague Council Member 8 Constantinides to also speak on the legislation 9 before us today.

COUNCIL MEMBER CONSTANTINIDES: 10 Thank 11 you, Chair Rodriguez and--and thank you for your 12 strong environmental leadership when it comes to Car-13 Free Day on Earth Day this year as we begin Earth 14 This is a -- a landmark initiative that you've Week. 15 begun with Car-Free NYC. I'm so excited to see all 16 the great work that you've accomplished, and really 17 showing New Yorkers on how we can work together to 18 bring emissions down, and change the culture of our 19 So I want to thank you, Chairman, and as--and city. 20 as well for all that you do with the Transportation 21 Committee. Everyday millions of cars take to our 2.2 streets, and those cars emit dangerous gases from 23 their tailpipes. This exhaust is one of the leading causes of carbon and greenhouse gas emissions 24 responsible for climate change. 25 The exhaust accounts

2 for an estimated 75% of carbon monoxide pollution, one-third of smog and 27% of greenhouse gas emissions 3 4 in the United States. Any given day, hundreds of thousands of cars, trucks, buses and other vehicles 5 crisscross the New York City streets spewing millions 6 7 of metric tons of pollutants into the air in their 8 collective wake. Car exhaust hurts us both globally 9 and locally. New York has long suffered an epidemic of childhood asthma with 13% of children under 13 10 11 diagnosed with some form of asthma. Sulfur dioxide 12 and particulate matter, two of the more toxic 13 pollutants emitted from car exhaust are leading causes of this dangerous condition in children. 14 And 15 just to speak personally, my son as he goes to the doctor, I had never seen a nebulizer before in my 16 17 life, but now when he goes to the pediatrician, I see 18 lines of nebulizers there with the kids all lined up 19 to take their Abuterol treatment. We know asthma--20 childhood asthma is a serious issue, and I'm--I'm glad to be working with the Mayor's Office and the 21 2.2 Chair to continue to combat it. While many New 23 Yorkers do not drive to work, one step that can be [coughs] -- one step that those who--who do can take is 24 25 to participate in electric vehicle. New York's

2 energy grid is becoming increasingly green as we 3 transition to more renewable energy sources. The 4 more that electric vehicles can replace conventional 5 cars, the more our transportation can become clean renewable energy instead of from fossil fuel. 6 7 Embracing green energy for power generation alone isn't enough to stem the tide of climate change and 8 9 cleaner air. We must phase out every type of fossil fuel usage into the future. One of the biggest 10 11 challenges faced by consumers who want to use 12 electric cars, though, is the scarcity of places to 13 charge them. Some wealthier citizens may have access to private garages with electric chargers, but most 14 15 do not. By providing charging stations for public 16 use we can make it possible for New Yorkers who want 17 to make a green choice and switch to an electric car 18 to do so. We can make--make electric cars more 19 visible, and encourage their use. Intro 1124 is an 20 important step in reducing these emissions here in 21 New York City. By initiating--initiating this pilot 2.2 program that would place between two and seven 23 chargers in each borough, we can encourage the use of cleaner electric cars. The location and the 24 appropriate fee for usage all these charges will be 25

2 set by POT (sic) and placed on their website. By 3 implementing Intro 1124 and by encouraging the use of 4 electric vehicles, we would take an important step in reducing these risks and improving the health and 5 safety of New Yorkers protecting everyone from the 6 global crises such as climate change and the harmful 7 8 contamination of the air we breathe. Again, I want 9 to thank Chairman Rodriguez for your commitment. I want to thank the administration for your--for the 10 11 great work that you've done thus far, and on the 12 clean city's fleets and all the greenhouse gas 13 emissions that we've worked on so far, but we must go 14 further, and must continue to be bold. So, I look 15 forward to working with you. Thank you, Chairman. CHAIRPERSON RODRIGUEZ: 16 Thank--thank you, 17 Council Member Constantinides also not only for being 18 the lead and giving me the opportunity for me to be a 19

17 Council Member constantinides also not only for being 18 the lead and giving me the opportunity for me to be a 19 colleague on this legislation, but also for your 20 leadership when it comes to the Committee on 21 Transportation here, too. Now, before we begin in--22 in listening for the testimony from the 23 administration represented by the Administration and 24 the Directors of the Mayor's Office of 25 Sustainability, I would like to thank my committee

2 staff Counsel Kelly Taylor, Policy Analyst Jonathan 3 Masserano, Gafar Zaaloff, and my Chief of Staff 4 Carmen de la Rosa and may Deputy Chief of Staff for Communication and Legislation Rosa Murphy. 5 I'll now call on the [background comments] -- So then let's now 6 7 ask the counsel to administer the affirmation and invite the--the--the Administration to start their 8 9 testimony.

LEGAL COUNSEL TAYLOR: Would you please raise your right hand. Do you affirm to tell the truth, the whole truth and nothing but the truth in your testimony before the committee today, and to respond honestly to council member questions?

NILDA MESA: I do.

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16 LEGAL COUNSEL: TAYLOR: Thank you. 17 NILDA MESA: Good morning Chairman 18 Rodriguez, Chairman Constantinides and members of the 19 Committee on Transportation. My name is Nilda Mesa 20 and I'm the Director of the New York City Mayor's 21 Office of Sustainability. Thank you for the opportunity to testify today regarding Intro 1124, 2.2 23 which would require the establishment of a pilot program to install between two and seven on-street 24 electric vehicle charging stations in each of the 25

2 five boroughs by 2018. This hearing is fitting start 3 to Earth Week, which will see the release of the One 4 NYC Annual Update and the first ever celebration of Car-Free NYC, and I want to salute you for your 5 leadership on that Chairman Rodriguez. 6 The--the 7 adoption of electric vehicles is a major component of 8 Mayor Bill de Blasio's commitment to green 9 transportation, and more widely as we develop the transportation sector within our 80 by 50 Greenhouse 10 11 Gas Emissions Reduction Plan. [coughs] While approximately 70% of the city's overall greenhouse 12 13 gas emissions are derived from buildings, the next 14 largest tranche is transportation, which clocks in at 15 about 21% as of 2014. Approximately 76% of transportation greenhouse gas emissions come from 16 17 light duty vehicles or cars. For us to make a dent 18 in our transportation emissions, we will need to 19 address lowering emissions coming from cars. In One 20 New York, the Plan for a Strong and Just City, One 21 NYC, which was released a year ago this week, 2.2 transportation was explicitly added as a sector 23 within the planning for reducing the city's greenhouse gas emissions 80% by 2050 or 80 by 50. 24 In addition, One NYC include as another goal that NYC 25

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2	would have the cleanest air quality of any large city
3	in the US. Reducing fossil fuel based tailpipe
4	emissions within the city is good not only for the
5	environment, but also for our health because reducing
6	these vehicular helps to improve air quality.
7	Unfortunately, some of our poorest neighborhoods have
8	some of the highest rates of asthma in the U.S.
9	Asthma is the leading reason school children call in
10	sick, and when children are sick wage earners may
11	also need to miss work to care for them. So it is
12	the neighborhoods that need their education the most,
13	the neighborhoods where wage earners can't afford to
14	miss work, but must to care for sick relatives that
15	most cruelly bear the greatest impacts of gasoline
16	fueled cars. Increasing the use of electric vehicles
17	is an important means to reduce greenhouse gas
18	emissions and improve air quality, which in turn
19	promotes positive health and economic outcomes in
20	some of our most vulnerable communities.
21	As the overwhelming majority of
22	transportation emissions comes from private vehicles
23	running on gasoline, we are working to shift vehicle
24	trips to low carbon modes of transportation such as
25	walking, biking and public transit while

2 simultaneously working to reduce emissions from the 3 remaining vehicle travel to the greatest extent 4 possible. Within the private sector, more than 2,400 5 electric vehicles are currently registered in New York City. Manhattan has the most EVs registered 6 7 with Queens coming in second. Within Con Ed's overall service area about 5,500 EVs are registered 8 9 with the bulk in Westchester County. Cars typically are charged at home overnight or at the workplace. 10 11 These vehicles utilize a growing network of EV 12 charging locations throughout the five boroughs 13 mostly in private parking garages. Recent years have 14 seen steady growth in publicly available charging 15 infrastructure. EV drivers today can plug in at roughly 300 charging locations throughout the city. 16 17 Moreover, Local Law 130 of 2013 requires that 20% of 18 new parking spaces in garages citywide be capable of 19 supporting electric vehicle charging stations. 20 Demand for EV charging is likely to increase in the next 24 months as a new generation of electric 21 2.2 vehicles, which offer greater driving range at lower 23 cost comes to market. For instance, later this year Chevrolet will begin selling the Bolt, a pure battery 24 electric vehicle that can travel upwards of 200 miles 25

per change and will cost under \$40,000 before 2 incentives. In just a few weeks, Tesla has received 3 4 more than 325,000 pre-orders for its Model 3, which can travel 215 miles on a single charge, and will 5 retail for around 35,000 before incentives when 6 delivered in late 2017. More encourage--encouraging 7 8 still it was announced earlier this month that New 9 York State will offer a \$2,000 rebate on plug-in vehicles, which together with a \$7,500 federal tax 10 11 credit brings the total incentives for EVs purchased in New York State to \$9,500. As the demand side of 12 13 the EV market continues to solidify, it will spur demand for additional publicly available chargers. 14 15 The private sector is now actively seeking additional 16 locations throughout the city for expanding charging infrastructure. In conversations with the private 17 18 sector, we have been told of a number of challenges inhibiting greater adoption of EVs in New York City. 19 20 For example, not all chargers can charge all 21 vehicles. Some chargers take overnight to charge a 2.2 car, which is ideally suited to home charging or long 23 periods of parking, but not to multiple short trips. Other rapid chargers may be able to top off a car in 24 30 minutes. Signage to direct drivers is not always 25

clear either, and some of the most promising growth 2 3 for installation of chargers appears to be in public 4 lots near retail centers such as the Big Box Stores in shopping malls. Our own experience to date also 5 provides some insight, and illustrates the challenge 6 7 of anticipating demand for publicly available 8 chargers. In 2013, the city sought to support the 9 early adopter market for EVs by providing charging stations for use by the general public. 10 The 11 Department of Transportation and the New York Power 12 Authority entered into an agreement that allowed DOT 13 to install three charging stations in each of nine 14 municipal parking garages throughout the five 15 boroughs for a total of 27 dedicated EV charging 16 stations. EV drivers who used these public chargers 17 do not pay any additional fees up beyond the general 18 parking fee paid by all users of the facilities. Of 19 the nine municipal locations with charging stations, 20 the Court Square Municipal Parking facility in Long 21 Island City gets the most use with the equivalent of 2.2 two to three full EV charges each day. So far in 23 2016, this site alone has been responsible for diverting nearly a ton of greenhouse gas emissions by 24 using electricity instead of burning approximately 25

2 270 gallons of gasoline. Three other participating 3 locations in the Lower East Side, Flushing and Staten 4 Island, have seen moderate utilization rates while chargers in the remaining five facilities have been 5 used much less frequently. With respect to our 6 7 fleet, the city is committed to leading by example in this sector. On December 1, 2015, the Mayor 8 9 announced NYC Clean Fleet, an municipal fleet sustainability plan that will give New York City the 10 11 largest municipal electric vehicle fleet of any city 12 in the country and perhaps the world. With this 13 plan, the City intends to make New York City's 14 transportation system the cleanest in the country. 15 New York City operates the largest municipal fleet in 16 the country with more than 28,000 vehicles. Its 17 fleet size is second only to the federal government. 18 The City currently operates over 16,000 vehicles that 19 run on some type of alternative fuel, and its fleet 20 has some of the nation's largest programs for hybrid 21 vehicles, biodiesel and fleet car sharing. As part of Clean Fleet, the City pledged to achieve a 50% 2.2 23 reduction in greenhouse gas emissions from the City's fleet by 2025, and an 80% reduction by 2035. A major 24 component of NYC Clean Fleet is to add 2,000 electric 25

vehicles to the city's sedan fleet by 2025, giving us 2 3 what will be the largest municipal EV fleet of any 4 U.S. city. The city fleet already operates 388 full use plug-in vehicles, 65 of which have been 5 introduced since the Mayor's Clean Fleet 6 announcement. The city also operates an addition 610 7 off-road plug-in units including electric carts, 8 9 electric forklifts and solar power light towers and sign board. In the five months since the Mayor's 10 11 announcement, the city has placed orders for 225 new electric units including 185 full use sedans and 40 12 13 off-road units. We expect to receive all of these vehicles by the end of June 2016. NYC Fleet operates 14 15 the largest EV charging network in New York State 16 with 270 charges currently dedicated for city fleet 17 use at the Department of Parks and Recreation and 18 Department of Sanitation garages, police precincts, 19 DOT facilities and Department of Environment 20 Protection facilities. DCAS is currently finalizing 21 the first long-term citywide requirement contract for 2.2 fleet charging, and we expect the fleet charging 23 network to increase to at least 350 chargers by the end of the year. The most exciting addition to this 24 25 charging network is a freestanding solar carport

charger currently located at the municipal building, 2 3 which can be used to charge two vehicles using only 4 solar power. DCAS will be looking to expand its Solar Carport Initiative to meet the charging 5 infrastructure demands of the Clean Fleet EV 6 7 expansion. In addition, earlier this month, DCAS reached and agreement with Nissan for the donation of 8 9 ten new EV chargers for use by NYC Fleet. NYC Fleet is also working to reduce emissions from FDNY 10 11 ambulances. FDNY and DCAS have ordered 78--sorry--98 new ambulances with alternative power units from 12 13 Stealth Technology, which will greatly reduce unit idling, saving fuel and maintenance costs and also 14 15 improving air quality. In December 2015, DCAS issued 16 a Request for Information to engage the private 17 sector in our Clean Fleet effort. The response was 18 extensive with 77 formal responses to the RFI 19 representing a wide variety of alternative fuel 20 approaches. DCAS, our office and the major fleet 21 agencies will jointly review the responses and refine 2.2 our fleet strategy based on them. Finally, DCAS is 23 doing its part to support Car-Free NYC on April 22nd. It has asked agencies to limit non-essential fleet 24 use that day, and to find alternatives for 25

administrative functions, meetings and commuting. We
will be following up with agencies on their plans and
look forward to promoting alternative to car use this
month as well as moving forward. On the strength of
its leadership in sustainability we're proud to
report that NYC Fleet was recently award the 2016
Green Fleet of the Year by Fleet Owner Magazine.

On Intro 1124, the Mayor's Office of 9 Sustainability and our colleagues at DCAS and DOT 10 11 look forward to working with the Council to support the adoption of electric vehicles and the 12 13 infrastructure required to support them in New York. We suggest, however, based on our initial research 14 15 and experience to date that there may be different and better ways to support electric vehicles and the 16 17 method required by this legislation as currently 18 drafted. Intro 1124 would require DOT to install 19 between two and seven on-street electric vehicle 20 chargers in each borough, and to report on total 21 program costs, charger utilization and 2.2 recommendations based on program experience by March 23 1, 2018. To date in New York City on-street charging is an untested model. In part, that reflects open 24 unresolved questions such as whether on-street 25

parking with EV charging stations would be exclusive 2 3 to EVs or also available to other vehicles, and how 4 that might work where parking space is already at a It is not clear where the electric 5 premium. infrastructure could accommodate this on street, and 6 7 what the best type of charging stations would be. Ιf the chargers require approval from the Public Design 8 9 Commission, 180 days may not be enough time. We have only begun to tap opportunities for off-street 10 11 charging. In fact, there's still ample room for 12 improvement. We may want to review Local Law 130, 13 implementation to improve support for chargers in 14 private garages. With the efforts by the private 15 sector to build out additional infrastructure it is 16 possible that the private sector working with us 17 could best assess patterns in gas, and that we may be 18 able to limit the use of taxpayer funds while also 19 utilizing the private sector's expertise and 20 knowledge of customer needs and behavior to encourage 21 private deployment of chargers. It could be that the 2.2 greatest potential for growth is in the public lots 23 new retail rather than on-street parking in residential neighborhoods. We need more information. 24 Or, it might be wherever people access trains, buses 25

2 or ferries in the boroughs outside Manhattan. For 3 example, the high charger utilization at DOTs Court 4 Square facility demonstrates the promise of adding chargers at park and rides. If we could provide 5 access to chargers adjacent to public transportation, 6 7 we could in theory provide an incentive for drivers 8 to take mass transit where they may otherwise choose 9 to drive, and so improve traffic congestion as well. We do not have the answers yet, but we would like to 10 11 continue conversations with the Council so as to not 12 rule out other promising strategies. On behalf of 13 the Mayor's Office, I offer my strong support for the 14 expansion of electric vehicle use throughout the 15 city. The Mayor's Office of Sustainability, DOT and 16 DCAS welcome the opportunity to work with the members 17 of the Committee on Transportation and the Council to 18 craft a thoughtful and ambitious approach to catalyze 19 EV uptick in our city. Thank you again for the 20 opportunity to testify this morning. 21 CHAIRPERSON RODRIGUEZ: Thank you again for your leadership in--in the Office of 2.2 23 Sustainability and, of course, thank you to the Mayor

24 for his vision not only to talk about, you know, how 25 the city can do better, but also to invest in the

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2	resources that are needed in order to reduce
3	emissions not only related to vehicles but otherthe
4	other emissions that are produced by many buildings
5	and other source ofof emissions that we produce in
6	the city. I have a few questions. I know that my
7	colleagues also have, but before that, I would like
8	to recognize Council Member Van Bramer, Miller and
9	Levin and before we get into the question, we will
10	pause to go back and take a vote on the Car-Free Day.
11	[background comments] So I now call on the Clerk to
12	call the roll for Reso 1013 and encourage a yes vote
13	from my colleagues on Car-Free Day.
14	CLERK: Committee Clerk Matthew
15	DeStefano, Committee on Transportation. Roll call on
16	Resolution 1013-A. Chair Rodriguez.
17	CHAIRPERSON RODRIGUEZ: [off mic] Aye.
18	CLERK: Vacca.
19	COUNCIL MEMBER VACCA: I vote aye.
20	CLERK: Levin.
21	COUNCIL MEMBER LEVIN: I vote aye.
22	CLERK: Rose.
23	COUNCIL MEMBER ROSE: Aye.
24	CLERK: Van Bramer.
25	COUNCIL MEMBER VAN BRAMER: Aye.

2 CLERK: Constantinides.
3 COUNCIL MEMBER CONSTANTINIDES: Aye.
4 CLERK: Miller. [pause] Council Member-5 COUNCIL MEMBER MILLER: [interposing]
6 Permission to explain.

24

CLERK: Yes, sir.

8 COUNCIL MEMBER MILLER: Thank you. It--9 it gives me great pleasure to vote aye on this, and-and to continue to work with Chair Rodriguez and the 10 11 members of this community--of this committee not just 12 to make our--our streets environmentally safe and 13 friendly and to ease congestion, but to be able to 14 address--use the Car-Free Day to address the issues 15 of transportations deserts, and in the case of my district extreme transportation deserts that the 16 17 community is so looking forward to the benefits of 18 the Car-Free Day, and we want to be working 19 diligently to make sure that we move forward to 20 efforts, that we bring transportation opportunities 21 to all communities throughout the city, and we're 2.2 going to use this opportunity as a springboard. Ι 23 applaud the Chairman for his leadership on this, and looking forward to working, and again I vote aye. 24

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2	CLERK: By a vote of 7 in the
3	affirmative, 0 in the negative and no abstentions,
4	the resolution has been adopted.

CHAIRPERSON RODRIGUEZ: We will leave the 5 vote open for next 30 minutes for other colleagues 6 7 who are not here, and I would like to say that we recognize also that the way of how we've been able to 8 9 see so many stakeholders from the academic work, Columbia, CUNY, NYU and your school to the business 10 11 community their bill in Congress, Partner for a 12 Better New York. Everyone has come on board in the 13 New York restoration as for green, and--and, you 14 know, this only had the impossible Bike New York, 15 Citi Bike. It's--when we look about what we are doing, this is about making our city the first one in 16 17 the nation putting together Car-Free Day. So I'm 18 very grateful and thanks. This wouldn't have 19 happened with--without this great coalition and--and 20 also without the support of the Speaker, Melissa 21 Mark-Viverito, the Mayor de Blasio that already has sent the letter that you can see in DCAS website 2.2 23 encouraging all the city employees to have a plan to park their car that day. Let's go to work using 24 bikes, walking, mass transportation. I also want to 25

2 thank the MTA, New York City Transit who already are putting advertising through train station in the 3 4 last--starting this past Friday. So, you know, this is something that is possible because we can do more, 5 and with this we are committed to make the City the 6 7 first on in the nation with the huge initiative that doesn't belong to me. We just thought of the idea, 8 9 and this has been billed because from the private, academic and religion sector and governmental sector, 10 11 everyone wants to save our planet not only for our 12 generation but for the future generation. Now, let's 13 go back and--go back to the electric vehicle charging station. I have a few questions again. One is when 14 15 it comes--when you look at DCAS there's as far as we 16 know the information that we have, you now, DCAS is the agency that oversees the 27,000 vehicles that the 17 18 City use for all the agencies and to do business to keep our city running. What--what are the commitment 19 20 of those private contractors that DCAS use or the 21 agency do to lease vehicle or to rent vehicle? Has 2.2 there been any conversation or any of those entities 23 that DCAS rents vehicle from, also to encourage them to also move more into electrical vehicles? 24

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NILDA MESA: That's a very good question.
At this time, I think I'd like to call up Keith
Kerman from DCAS who can really speak in more detail
about their particular conversations. [background
comments, pause]

7 KEITH KERMAN: Hi. Keith Kerman, Chief Fleet Officer, DCAS. So, yes, where DCAS leases 8 9 vehicles, first off, we have the largest public contract with the Zip Car for car sharing, and in 10 11 that contract we are using--and most of the vehicles 12 we're using are hybrid vehicles for our Zip Car contracts where we need short-term additional 13 vehicles. Those are mostly hybrids. Zip has also 14 15 provided a small number so far of EV fits that are 16 being used at the Parks Department as car share 17 vehicles. So we do have some electric vehicles as 18 part of our Care Share Zip Program. In this--most of 19 the other vehicles that we lease or rent are really 20 heavy equipment units mostly at the Department of Transportation and a small number at Police and other 21 agencies. So for those, the main thing we're doing 2.2 23 is we are fueling those on biodiesel. So even if it's a rented or leased heavy equipment piece or 24 specialized piece, it's using biodiesel along with 25

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the rest of the city fleet. In addition, if there's 2 other--and there really is a small number of other 3 4 rented vehicles we would be renting, you know, hybrid vehicles as we do elsewhere, but the majority of our 5 rental car program is either the Zip Car Program, 6 7 which is all hybrid or EV or the Trucking Specialized 8 Program, which is biodiesel and that mirrors what we 9 do with our city vehicles.

CHAIRPERSON RODRIGUEZ: SO what about 10 11 those small vehicles use by the city employees 12 through the other--through the agencies like DOT, 13 DDC, DCAS or--and--and NYCHA? Like how are doing on 14 increasing? What is--what is the plan that we have 15 and how do we expect the city that, you know, next year we are adding this percentage of electrical 16 17 vehicle, in 2018 another one, and by 2020 like how 18 many of those-- Let's say if we have--if DCAS 19 oversees 27,000 vehicles, you can share with us if 20 you have information how many--what percentage or 21 what number of the 27 are a healthy (sic) vehicle? 2.2 What other percentage are like the small cars, and 23 for the group of small cars, let's say in five year, is there any plan to turn as many of those -- a small 24 25 vehicle that the city use, that the city employees

2 use to do inspection, HPD whatever to move into 3 electrical vehicles?

4 NILDA MESA: That's--this is our NYC Clean Fleet program, and so this is -- we are moving 5 towards having the largest electric vehicle fleet of 6 7 any municipality in the U.S. So, and most of those 8 will come from the light duty vehicles. It's, you 9 know, 2,000 or so, and so the idea as part of Clean Fleet is also that we have targets for reducing 10 11 greenhouse gas emissions within our--you know, because of this adoption of electric vehicles. 12 13 KEITH KERMAN: Did you want me--? 14 NILDA MESA: Yes, go ahead. 15 KEITH KERMAN: Okay. So, right, so the--16 the goal is to get to 2,000 vehicles by 2025 as the 17 Director said. 2,000 by 2025, electric plug-in vehicles. That's the full on-road units. There are 18 19 about 4,000 non-emergency light duty vehicles. It's 20 basically, 4,000 non-emergency cars. So right now we

21 have 380 of those are EVs, and basically the goal is 2.2 200 a year, and we already have, as was mentioned in 23 the testimony, order for 225 electric vehicles. for year one, and the announcement was made in 24 25 December. So five months later, we are basically

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So

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2	going to meet our year one goal, which is an
3	additional 200. We should be about 500 electric
4	vehicles on the road by the end of this year, and
5	then basically it'sit's pretty basic. We need to
6	do about 200 a year to get to our goal.
7	CHAIRPERSON RODRIGUEZ: How many small
8	vehicle for the 27,000 that the CityDCAS oversees,
9	I guess whatwhat number are like a small vehicle,
10	cars?
11	KEITH KERMAN: Four-four thousand.
12	CHAIRPERSON RODRIGUEZ: Four thousand?
13	KEITH KERMAN: Yep.
14	CHAIRPERSON RODRIGUEZ: So thethe
15	majority are like heavy vehicles used by
16	KEITH KERMAN: [interposing] Well, the
17	the Police Department operates over 8,000 emergency
18	response vehicles. Then everything else is really
19	the pickup trucks, the vans, the Sanitation garbage
20	trucks and the specialized equipment. Yes.
21	CHAIRPERSON RODRIGUEZ: Good. So what
22	about thethatthat large number let's say that's
23	use by the NYPD is there any plan that, you know, for
24	that since ifif they are let's say the largest one,
25	the agency that have the larger numbers of vehicles,

are--is the city in this case the Mayor's Office of Sustainability and DCAS as the agency that oversees have any plan let's say to say by--we are focusing on getting those NYPD cars to be one of those that we would like to turn them more as electrical vehicles?

7 NILDA MESA: There--right now there are some limitations in the technology for emergency 8 9 vehicles. Our understanding is that the City of Los Angeles with Tesla has, you know, basically built a 10 11 prototype for a police vehicle, but there isn't 12 really anything else that exists, and I'm not sure 13 that that's actually going into operation yet. But part of our commitment with the Clean Fleet Program 14 15 is to continue to be speaking with the manufacturers, 16 and with the agencies about what the new technology 17 is that's coming up, and to keep pushing, you know, 18 for that. And it--it applies as well for Department 19 of Sanitation vehicles as well as other heavy duty 20 vehicles. There--there are just some limitations 21 right now. Light duty, the cars that's sort of the--2.2 the lowest hanging fruit that we know exists and the 23 rest of them it's still under development.

CHAIRPERSON RODRIGUEZ: Thank you. Sowhat if--I was speaking this day to the Queens

2 Borough President Melinda Katz and we were having 3 this conversation about the electrical car, and one 4 thing that we were saying that, you know, she has children, I have children. For those of us, you 5 know, that have children, if we would like to get 6 7 moving to electrical car, one of the concerns that 8 she say we should talk is about what about if we were 9 in trouble with a battery. There's not a back-up battery that we have this car. What--how have the--10 11 you know the business sector share with the City when 12 you have this opportunity to meet on, you know, as 13 something that is new in the last--what? I don't 14 know, 20 years in moving to electrical car. Like 15 what is the challenges that the private sector 16 recognized, and that the city has identified as yes 17 you can run those amount--amount of miles with the--18 with the car being, with the battery, but what about 19 the challenge when that battery doesn't work? What 20 is the back up?

NILDA MESA: That--that is definitely one of the big factors inhibiting the adoption of electric vehicles--the--this summer, you know, one very promising development that car manufacturers like Chevy and Tesla will be coming out with vehicles

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that have essentially double the range of possible 2 3 use from their batteries. And so as that range 4 increases from, you know, what's currently available, what's called range anxiety is anticipated to go 5 down. But that's--that's why we're anticipating a--6 7 a, you know, an expansion within the city of electric 8 vehicle adoption. But range anxiety is -- is a very 9 real thing and that does inhibit and that's why, you know, most cars are either changed at home or at 10 11 work, and so, you know, I should say, you know, 12 where--wherever workplace parking is. And so that's 13 why it becomes critical to have, you know, these 14 options available.

15 CHAIRPERSON RODRIGUEZ: So we will give the opportunity to like my colleague Council Member 16 17 Greenfield to vote, and then Council Member--I would 18 like to recognize Council Member Garodnick, 19 Greenfield and Reynoso, and after the Council Member 20 vote, then I will give the opportunity to Council 21 Member Lander to ask the questions since he had to go 2.2 and chair a hearing. And, before calling on the 23 council member to vote, I would like to say that we recognize that Friday is Passover. So even though on 24 the Car-Free Day is all about volunteer, this is not 25

2 about creating inconvenience, but this is about 3 creating opportunity for those who can make it, and 4 go to be with the family and friends in the best way 5 they can. But again, the Car-Free Day is all 6 volunteer. Council Member Greenfield.

7 COUNCIL MEMBER GREENFIELD: Thank you very much, and Mr. Chairman, I want to congratulate 8 9 you and thank you. Nobody--nobody does more in this Council to advocate alternatives and better 10 11 transportation and cleaner transportation and safer 12 transportation than you do. And so I'm really 13 thankful for your leadership. As you mentioned, this 14 Friday is the Eve of Passover, and so I don't want 15 people to think that I'm going to vote for something that I can't do. So I'm going to abstain from this 16 17 particular vote just so folks recognize that I 18 support the cause, but myself and my family were 19 actually traveling that day like many other families 20 that for Passover. So I just want to be honest about 21 that, but I certainly support the cause and, in fact, 2.2 I myself drive an electric car that I charge right 23 here at City Hall. Thank you.

24 CLERK: Continuation of roll call vote, 25 Garodnick.

1 COMMITTEE ON TRANSPORTATION 35 2 COUNCIL MEMBER GARODNICK: Aye. 3 CLERK: Greenfield. COUNCIL MEMBER GREENFIELD: Abstain. 4 5 CLERK: Reynoso. 6 COUNCIL MEMBER REYNOSO: I vote aye on 7 all. 8 The vote--the vote now stands--CLERK: 9 I'm sorry. The vote now stands at 9 in the affirmative, 0 in the negative, 1 abstention. 10 11 CHAIRPERSON RODRIGUEZ: Great. 12 COUNCIL MEMBER LANDER: Thank you very 13 much, Mr. Chair for accommodating me before I run off 14 to Chair the Rules Committee hearing. Thanks to you 15 and Council Member Constantinides and the other co-16 sponsors for this good bill and--and pushing forward 17 this really critical issue. I just have one 18 question, which, you know, I think I've spoken with 19 you about before offline, but I--I wanted to ask the 20 sponsors to think with me about it as well. Though I 21 haven't been to Paris since they're doing it, I've 2.2 been reading about their Autolib system, which is for 23 those that don't know essentially it's like Bike Share of plug-in cars, and it seems to me a way that 24 both to build out a charging infrastructure to get 25

2 more people into electric cars, and in the same way 3 that Bike Share makes it a lot more possible for 4 people to take bike trips than they would. To make it more possible for people to start using those 5 cars. Some I believe would be able to give up their 6 7 own cars if we had a meaningful care share system of 8 any kind, and if it also were electric, it would also 9 significantly reduce emissions and potential build out the charging if we did it with a franchise model 10 11 where the franchiser like with City Bike got some on 12 street parking spaces. And the deal with them was in 13 exchange they were obligated to build out a charging 14 infrastructure that other vehicles could potentially 15 plug into. Perhaps it would help us achieve a lot of goals at once. So I just wonder this is something 16 17 that you have looked at or thought about? Whether it 18 might be a piece in some way of how we move forward 19 with this--with this effort to take a look at that 20 and see what it would look like to get there.

NILDA MESA: I would say we're still at early stages, and that's--that's an appealing model, and what we need to do is, you know, really dig into what all the possible opportunities are out there that's--you know, that would work within New York

2 City. I mean taking a look at sort of like usage 3 patterns and, you know, who is it that's driving 4 where and how we could facilitate that. But that's 5 certainly something that is very appealing for us to 6 be looking at.

7 COUNCIL MEMBER LANDER: All right, thank you. Well, let me just urge and I'll say this to the 8 9 chair and the co-sponsors that perhaps we could think about this as one of the models we would be looking 10 11 at. I know it's a lot of complicated questions. Obviously, there's been a lot about the driverless 12 13 cars, and they'll have a whole different 14 infrastructure set of requirements. They won't sit 15 on the streets in the same way with someone to plug 16 them in, but--but it seems to me this is worth 17 looking at may be a -- a part of our effort to think 18 about charging infrastructure, and about reducing 19 petroleum based car trips. So thanks for this 20 legislation. I look forward to continuing to work 21 with you in moving forward. 2.2 CHAIRPERSON RODRIGUEZ: Council Member 23 Constantinides.

COUNCIL MEMBER CONSTANTINIDES: Thank youChairman Rodriguez and Council Member Lander.

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2	Absolutely I think we will certainly take into
3	account every opportunity we can to expand electric
4	car infrastructure and II definitely look forward
5	to continuing that conversation with you. I'm with
6	you as well, Nilda. [laughs]
7	NILDA MESA: Thanks.
8	COUNCIL MEMBER CONSTANTINIDES: All
9	right, I willI have a few questions. How manyhow
10	many carelectric charging stations have we
11	installed in New York City in municipal lots that are
12	available to the public for utilization so far?
13	NILDA MESA: So there are about 27
14	COUNCIL MEMBER CONSTANTINIDES: 27.
15	NILDA MESA:that have been installed
16	so far. There arethere are 300 available, about
17	300 available citywide that arethat are not like at
18	municipal lots. Mostly those are in garages, and
19	most of those are in Manhattan, which kind of makes
20	sense when you think about, you know, people driving
21	into work then they would, you know, charge up while
22	they're here.
23	COUNCIL MEMBER CONSTANTINIDES: And
24	they'rebut they're in garages that you have to pay
25	for, oror

1 COMMITTEE ON TRANSPORTATION 39 2 NILDA MESA: [interposing] Yeah. 3 COUNCIL MEMBER CONSTANTINIDES: --with 4 these arrivals--5 NILDA MESA: [interposing] Yeah, on streets there's not--not a heck of a lot. Just--6 7 there--like I said, there are, you know, there's some real issues with--first off, there's the electric 8 9 infrastructure that's available, and I'm not saying these are complete deal stoppers. These are things 10 11 that--COUNCIL MEMBER CONSTANTINIDES: 12 13 [interposing] Uh-huh. 14 NILDA MESA: --you know, we need to think 15 through, and--and work out. So, you know, what's the availability of the electric infrastructure? But 16 17 also like how do you set it up in what types of 18 neighborhoods, you know, to account for our scarce 19 street parking already. You know, and it's just we 20 haven't worked through that, and we look forward to 21 working with you--2.2 COUNCIL MEMBER CONSTANTINIDES: 23 [interposing] Okay. NILDA MESA: -- on figuring out some of 24 those issues. 25

2	COUNCIL MEMBER CONSTANTINIDES: Asas to
3	why, asasas far as, you know, Local Law 130 of
4	of 2013 do we know how many chargers have already
5	been installed? I know it's to 20% are supposed to
6	be in every garage that is built. Do you know how
7	many of them built out that are accessible to the
8	public?
9	NILDA MESA: We do not know at this
10	point. So the requirement from 2013 was that 20% of
11	new parking spaces in garages be made easyI should
12	say charger ready, which does notwhich means that
13	the conduit is there. It does not necessarily mean
14	that there are chargers there and, you know,
15	internally as part of our 80 by 50 transportation
16	sector planning, that's one of the things that we've
17	identified that we really do need to get data on.
18	COUNCIL MEMBER CONSTANTINIDES: Okay. I
19	mean so I mean really we're not sure yet. [laughs]
20	NILDA MESA: No, we're not. That's why
21	that's whyyeah, I mean that's why I said, you know,
22	it could be that's, you know, through Local Law 130.

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23 One of the things we need to do is assess, you know, 24 how has this worked so far?

2	COUNCIL MEMBER CONSTANTINIDES: And this-
3	-thisso tell me because a lot of work as to how we
4	encourage the private sector to, you know, I mean I
5	think we're doing we're doing great work for the New
6	York City's fleet, and it sounds like we're really on
7	the right track. This sounds when it comes to
8	encouraging the public to sort of make that green
9	choicenow I've said over and over again when it's
10	hard to be green, people are going to make
11	traditional choices just because it'sit's society,
12	and ifif youif you make it easy to be
13	traditional, yeah, they go buy a car. Itit burns
14	petroleum. Everyone goes on their way, and that's
15	just the way it is.
16	NILDA MESA: Right.
17	COUNCIL MEMBER CONSTANTINIDES: But if we
18	can equalize and make it as easy to be green as it is
19	to be traditional, then people can make choices based
20	on green values and not oh, this is hard. [laughs]
21	NILDA MESA: Right. I mean therethere
22	are a lot of open questions, you know, and that's
23	something that we're hearing as well from the private
24	sector because they'reobviously they're very
25	interested in, you know, selling more cars, and in

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2	order to do that, we need to have more robust
3	infrastructure. And so, you know, one of the things
4	that we've heard from them is in that likein other
5	cities, for example, public parking like in lots near
6	retail is actually something that's very promising,
7	and they've seen a lot of growth with those models
8	because people will come.
9	COUNCIL MEMBER CONSTANTINIDES:
10	[interposing] Uh-huh.
11	NILDA MESA: They'll stay for a few
12	hours, you know, do their shopping or whatever. Get
13	a quick charge and then they can go. And sobut we
14	haven't reallywewe- don't know yet for New York
15	City what's thethe right combination.
16	COUNCIL MEMBER CONSTANTINIDES: Okay,
17	well I amI mean I look at, you know, all of the
18	suggestions as far as park and rides near public
19	transportation. I vote yes. In near retail I vote
20	yes, but I think we can do all three andand still
21	do our bill, and still do things that are still a
22	really comprehensive network. I don't think that
23	NILDA MESA: [interposing] Right.
24	COUNCIL MEMBER CONSTANTINIDES:1124
25	precludes us from
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1 COMMITTEE ON TRANSPORTATION 43 2 NILDA MESA: [interposing] Right. 3 COUNCIL MEMBER CONSTANTINIDES: --looking 4 at park and rides, and looking at retail centers, and see how we can build this larger network together. 5 Because I think we, you know, need to take that step. 6 7 And, you know, if I look at the cities of Boston and 8 Baltimore and Salt Lake City, and Indianapolis who 9 have managed to figure out residential parking, onstreet parking for electric vehicles and 10 11 infrastructure. I mean, we're New York--12 NILDA MESA: [interposing] Right. 13 COUNCIL MEMBER CONSTANTINIDES: --you I--I think we got some serious chops in all 14 know. 15 these other cities. 16 NILDA MESA: [laughs] I think that--I 17 can't agree with you more. 18 COUNCIL MEMBER CONSTANTINIDES: And we've I mean how--how we--you know, we're--we're 19 qot you. in the right place here. We've got the right mayor. 20 21 We've got the right administration. We've got the light readership and--also Mark-Viverito and Ydanis 2.2 23 Rodriguez to get this done. So I really urge that we can, you know, be bold here, and not let the--the 24 25 perfect be the enemy of the good.

2 NILDA MESA: [interposing] Right.
3 COUNCIL MEMBER CONSTANTINIDES: We get
4 something done as quickly as possible. Chair. Thank
5 you.

CHAIRPERSON RODRIGUEZ: And--and I would 6 7 say that, you know, I will invite you for a 8 demonstration especially you and your leadership. 9 It's also to look at as we are rezoning many parts of the city, also how can also the private sector, those 10 11 developers that also will be partners with the city. 12 So they does rezoning, you know, turning into great possibilities for working class and middle-class. And 13 14 also building 90% of some markets, apartments. How 15 can we also--or I can try and answer that question. 16 You know, is that something that the Administration 17 also has been looking at the possibility also to take 18 advantage that we are re-zoning hundreds of acres to 19 work with those developers also to look at those 20 areas as potential use for electric vehicle charging stations? 21

NILDA MESA: The--the 20%, you know, for the garages for off-street parking that applies, you know, sort of citywide. So, you know, that would certainly apply to development, and this question has

2 come up and, you know, like I say, we need to--we 3 need some more data. We need some more. We need to 4 think through this more.

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5 CHAIRPERSON RODRIGUEZ: [off mic] and I have that in my--[on mic] I know that having their 6 7 support the Mayor and the Speaker, their colleagues, 8 you know, the whole borough coalition, Car-Free days 9 are important and you'll doing. But I know that also your leadership also we can get a lot of support. 10 11 All the talk--talk that I heard about, you know, is 12 when you talk about DCAS, you know, you have the 13 experience. You've been there for so many years. When it comes to getting, you know, that came from 14 15 the Mayor to really go and--and we--you know, with other friends to other agencies to really--it started 16 17 with a good reduction of vehicle because we will get 18 those city vehicles. Those that I know are essential 19 to be parked. That's very important and you as the 20 director of this office not only we're looking to 21 work around the Car-free Day on this bill, but also 2.2 with other initiatives that in your leadership we 23 have seen also important in our city. Council Member Chin, do you have a question? 24

1 COMMITTEE ON TRANSPORTATION 46 2 COUNCIL MEMBER CHIN: [off mic] I wanted 3 to vote. 4 CHAIRPERSON RODRIGUEZ: I will go back to the vote for the other colleagues who are here. 5 CLERK: Continuation of roll call. 6 7 Council Member Chin. 8 COUNCIL MEMBER CHIN: I vote aye. 9 CLERK: The vote now stands at 10 in the affirmative, O--Council Member Miller. 10 11 COUNCIL MEMBER MILLER: I vote aye. The vote now stands at 11 in the 12 CLERK: 13 affirmative, 0 in the negative, 1 abstention. CHAIRPERSON RODRIGUEZ: And if the two 14 15 colleagues do not have--have any questions, if you do just let know, you know, then we move to the next 16 17 panel. And--and the bill that we are discussing to 18 day is the one expanding the electrical--electric 19 vehicle charging station throughout the city. Council Member Chin. 20 21 COUNCIL MEMBER CHIN: Thank you, Chair. There are three--I have three charging stations at 2.2 23 the municipal parking in my district on Delancey and Essex. Do you know how often are these charging 24 stations used? 25

2	NILDA MESA: [off mic] Do you know this?
3	[on mic] I don't off the top of my head, but we can
4	get back to you with that. It's moderate.
5	COUNCIL MEMBER CHIN: And then we heard.
6	I mean, we know there aresupposedly there are four
7	levels of charging stations available. So which
8	level are the three charging stations in the Delancey
9	and Essex Street municipal lot? Are they compatible
10	to all the electric vehicles?
11	NILDA MESA: So as I'mI'm looking at
12	Delancey and Essex Street, it'sit's sort of the
13	mid-range of utilization of the numbers of charging
14	stations we have citywide. It only accommodates
15	level 2 chargers, which are the long-time, you know,
16	thethe chargers that take a while to charge up the
17	cars.
18	COUNCIL MEMBER CHIN: So, that's not the
19	most up-to-date one?
20	NILDA MESA: I mean the otherI mean
21	they have put in them as fixes (sic), you know. (sic)
22	COUNCIL MEMBER CHIN: [interposing] How
23	long does it take to charge it up?
24	NILDA MESA: It's prettyit's like
25	overnight, you know and it's like a full day kind of

2 thing. So there are different--there are pros and 3 cons for both approaches, you know. So if you're 4 charging up at the workplace or you're charging overnight, we're going to leave the car there for a 5 while. It makes sense to have level 2 because it 6 7 uses elec--less electricity and it's, you know, it 8 can, it's like less strain on the grid, you know, at-9 -at a certain point. So, it's okay, but if what you need are--if what you're going to be doing are like, 10 11 you know, sort of multitudes of short trips or 12 something where you don't--you can't--you're not 13 going to be there all that long, then level 2 is a kind of a charger that doesn't quite accommodate that 14 15 other sort of use. 16 COUNCIL MEMBER CHIN: Now, and how are 17 these publicized? Is it just on your website or are the people who--who rent the space at the, let's say

18 19 at the parking lot that parks their cars overnight, 20 are they--you know, do they have that information 21 about electric charging stations are available there? 2.2 [background comments] 23 KEITH KERMAN: There--there are a number of services including the New York City DOT website, 24 and the NYC.gov websites and other kind of private EV 25

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promoting services that maintain the lists and distribute the lists to be the operators of where the locations are. And we are right now--it's a fairly known public, you know, it's--it's a somewhat, you know, smaller group of EV operators. So I think we get that information out to them pretty reliably.

8 COUNCIL MEMBER CHIN: Yeah, because I 9 remember, oh, gosh, it must have been at least five-five years ago or more in my district at the Grand 10 11 Street Co-ops we had a -- a pilot project where we had 12 a--an electric charging station right there where we 13 had some space for, and so the residents were able to 14 take advantage of it. Okay, thank you. Hopefully we 15 can really get this more popularized so that more 16 people can utilize it.

17 NILDA MESA: Yeah, there are a lot of, 18 you know, the -- the interesting thing now about 19 looking at this issue today as oppose to say even 20 like a year or two ago is that there have been some 21 major advances, you know, in the technology. So with 2.2 the range increasing and, you know, essentially 23 doubling for electric vehicles, you know, and those cars will be coming out like this summer or in a few 24 years, and that all of a sudden gives you a whole lot 25

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2	more flexibility. It makes things, you know, a lot
3	easier forfor consumers to use. So, II mean I'm
4	anticipating we're going to have a lot of exciting
5	possibilities in the next couple of years.
6	CHAIRPERSON RODRIGUEZ: Council Member
7	Richards.
8	COUNCIL MEMBER RICHARDS: Thank you.
9	Thank you, chairs for your leadership on this
10	critical issue as we try to move away from fossil
11	fuels. Obviously electric isis one that is a huge
12	direction we're trying to go, and I remember I
13	believe I have a bill, which required the city to
14	actually expand the EV allocations across the city a
15	little bit more. So I can't even remember if I
16	introduce that bill yet, but certainly look forward
17	to working with the admin on it. So I remember when
18	we were drafting thethe original bill, one of the
19	things that came up was UPS. UPS wanted totheir
20	fleet to go entirely electric andand one of the
21	reasons they could not is because of a lack of
22	infrastructure. So, Iso I wanted to hear where
23	we're at in terms of expanding electrical vehicle
24	infrastructure as obviously we're here to talk about
25	a pilot today, but entirely across the city we know
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2 that there's a need for it especially if we have 3 companies like UPS who want to go completely 4 electric.

5 NILDA MESA: We--today, I was really focusing more on, you know, cars and light duty 6 vehicles. The heavier duty vehicles it's, you more 7 8 of a challenge, and you're absolutely right that, you 9 know, UPS said to us a year ago that they would like to have more infrastructure. One of the things that 10 11 I think will be critical to our success is working 12 with the utilities on the infrastructure part, and--13 and understanding what it is that is going to be required in order to, you know, accommodate these 14 15 charging stations. Another thing that's going to be 16 necessary is to figure out what are the use patterns, 17 you know, for these trucks. I mean what is it, and--18 and that's something that I really I can't say I 19 understand [laughs] you know today. But that --20 there's a lot of information that we can get from the 21 private sector on that, and I think that's going to 2.2 be really critical to our success.

COUNCIL MEMBER RICHARDS: And I think one of the things my bill actually did in particular was push for more infrastructure to be put on public

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2	spaces. So is the city looking at expanding? So for
3	instance we have oneI believe one charging station
4	outside of these doors in City Hall's lot, but have
5	we looked at our own treasure in terms of trying to
6	figure out a way we can delve into having more usage
7	especially on public sitespublic sites the City
8	owns?

9 NILDA MESA: We--we--sorry. So we have 27 right now for--available for the public, and it's 10 11 something that I think we need to be, you know, 12 looking at more closely for our own vehicles, for 13 city fleet vehicles. We have quite a few. So, and that's in order to meet our commitment to have 2,000 14 15 electric vehicles in the next ten years or so. So 16 our own infrastructure is going to be expanding and--17 COUNCIL MEMBER RICHARDS: [interposing] 18 Right. 19 NILDA MESA: --you know, we're learning a lot just from doing that. 20 21 COUNCIL MEMBER RICHARDS: So it's going to be expanding. Do you have a number of where we're 2.2 23 at now, and so what you're looking to do as we move forward? 24 25

2 KEITH KERMAN: Yeah, thank you. So right 3 now, we have 273 electric charging stations on 4 municipal property serving the--the city fleet including the City Hall charger location that you 5 mentioned. By the end of the year, we'll be at 350, 6 7 and one of the things we're doing now, we had never 8 had a citywide requirement contract through DCAS for 9 EV charging. So we're in the final stages of selecting a vendor so that we will have a long-term 10 11 five-year contract for EV charging, and that will 12 help all the agencies and the major fleet--fleet 13 agencies expand that network. But our number for the 14 end of this year is 350, and then, you know, with 200 15 EVs coming every year, that number is going to grow enormously. So--so we are kind of taking every step 16 17 we can to grow the -- the charging capacity on public 18 land, but especially to serve the EV fleet that 19 we're--we're expanding so quickly. 20 COUNCIL MEMBER RICHARDS: All right, well 21 that's good news and I want to thank the Chairs once 2.2 again for their leadership on this issue, and look 23 forward to passing that bill. So that we can have more infrastructure especially on our city-owned 24 25 lots. Thank you so much.

2 CHAIRPERSON RODRIGUEZ: So with that, I'd 3 like to thank again Nilda Mesa, the Director of the 4 Mayor's Office of Sustainability, and Keith Kerman, we're relying on you as a--as the Fleet Manager of 5 DCAS, and your role in supporting those will be very 6 7 important. We will have a press conference on 8 Thursday, the 21 in Times Square, 45th and Broadway 9 giving more detail on the prep--with the preparation, but I know that the Mayor again with DOT, too, 10 11 they've been very helpful. There's a big plan that they have for the closing of Broadway from Union 12 13 Square to 23rd Street at the heart of crossing the 14 street and sending the message and--and again thank 15 you all my colleagues for being on board this 16 initiative. With that, I'm now going to be calling 17 the next panel. Will Nicholas from Tesla Motors, 18 Jessie Hart--Carp from Tesla 2, and Kevin George 19 Miller from Charge Points, and as they're coming to 20 the table, I'm going to take--I'm going to be taking 21 five minutes just to going and being present at the 2.2 other hearing. And now I would to ask the clerk to 23 please close the vote.

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2 CLERK: The--the vote now stands--the 3 final vote now stands 11 in the affirmative, 0 in the 4 negative, 1 abstention.

5 CHAIRPERSON RODRIGUEZ: Thank you. So 6 we'll be back in five minutes, but our guests stay in 7 the table. [pause, background comments, pause]

So to continue, 8 CHAIRPERSON RODRIGUEZ: 9 we will hear now the panel from the private sector, and as you know, like you represent, you know, those, 10 11 the part of the city of the--the society and only 12 here that is looking to do better in the city, but 13 also you're coming in national or international profile. So, we know that in order to move into the 14 15 electric vehicle charging stations through expanding through the--through the five borough in our city, 16 17 and make our city also the center of this innovation. 18 This is only what happened with the partnership with 19 public and private sector working together.

20 WILL NICHOLAS: Good morning. My name is 21 Will Nicholas and I'm the Government Relations 22 Manager for Tesla Motors, Incorporated. I want to 23 thank council members for allowing me the opportunity 24 to describe Tesla's interest in Bill 1124 before the 25 committee. Just last week one of the few gas

stations left in Manhattan closed. It seems an 2 3 appropriate time that we now discuss how to refuel 4 the city with the technology that will move us into 5 the future. Tesla is an American Technology and Design Company that solely manufactures and 6 7 distributes electric vehicles. Founded in 2003 by 8 five Silicon Valley engineers seeking to end our 9 country's dependence on oil, particularly foreign oil, this U.S. based company's core mission is to 10 11 catalyze the mass market for sustainable transport. 12 From the outset, Tesla's plan has been to capitalize 13 on its innovative new power train technology in high 14 end products with a goal to aggressively drive down 15 price for iterating and improving technology in subsequent product offerings. The company first 16 designed and built the market inspiring Tesla 17 18 Roadster in 2008, a two-seat sports car capable of 19 245 miles of range on a single charge and 0 to 60 time in 3.7 seconds. Nearly 2,500 units were sold 20 21 around the world with a starting price of \$109,000, and the car had an intentional limited production run 2.2 23 in order to quickly move to the next offering, the award winning Model S. Released in 2012, less than a 24 decade after the conclusion of the Roadster Program, 25

the Model S is capable of achieving over 270 miles of 2 3 range on the updated EPA test that takes into account 4 air conditioning usage, cold weather operation and 5 high speed driving. With a starting price of \$71,500, Tesla has taken out nearly half of the cost 6 7 of this next iteration vehicle, while providing 8 vastly improved utility for five adults and two 9 children, classic in storage, supercharging capability and performance with a 0 to 60 mile per 10 11 hour times in as little as 2.8 seconds, improved 12 range and dual motor all-wheel drive power train. 13 the Model S has won numerous awards by--and named in Motor Trends Magazine 2000 car--2013 Car of the Year, 14 15 and is being referred by Consumer Reports as the best 16 car they've ever tested and scoring on 103 out of a 17 possible 100. In the third quarter of last year, 18 Tesla related the Tesla Model X, a crossover vehicle 19 with seating up to seven adults, and other compelling 20 features. And just two weeks ago, the company 21 unveiled drivable prototypes for its mass market 2.2 vehicle, Model 3, the first car based on its third 23 generation platform with a starting price of \$35,000. Tesla now says that the affordable EV will travel 215 24 real world miles per charge, achieve a five star 25

2 safety rating in each category, seat five adults 3 comfortably, and having compatibility with the super 4 charge network. Scheduled for start-up production in May 2017, this third generation EV planned less than 5 a decade after the introduction of Tesla's first ever 6 vehicle, represent the market entry of a long-range 7 8 EV at a third of a price of the roadster. Once 9 achieved, this aggressive technology innovation will represent in engineering and price reduction that no 10 other automobile manufacturer has ever matched. 11 То 12 further the option of EVs and create driving 13 confidence for customers, Tesla has launched several 14 initiatives to make charging easy and convenient. 15 First the Model S and Model X are compatible with any conventional outlet. The universality of the 16 17 architecture allows customers to charge their 18 vehicles in the convenience [bell] of their homes 19 with standard 120 or 220 volt outlets. Tesla also 20 manufactures a wall fixture that charges up to 80 21 amps and has an 18-foot cord. These are often 2.2 installed in customer's garages, but workplaces and 23 businesses have begun to install them to accommodate employees and attract patrons. This effort to 24 25 partner with parking garages, shopping centers,

business parks and travel destinations has increased 2 3 Tesla's overall charging footprint. Tesla customers 4 can find wall connectors on the company's public 5 website, and receive navigation to the locations through the vehicle's 17-inch on-board screen. 6 7 Currently there are over 3,815 wall connectors across the United States with 105 of them in Manhattan and 8 9 Brooklyn. Tesla customers can also leverage thirdparty charges by adapters. J1772 adapters come 10 11 standard with each vehicle and Chatham (sic) Chargers 12 can be purchased online or at one of our service 13 centers. In addition to these options and potentially most importantly, Tesla customers have 14 15 access to the growing supercharger network that spans 16 the globe. Superchargers are free connectors that 17 charge Tesla EVs in minutes instead of hours. 18 Stations are strategically placed to minimize stops 19 during long distance travel, and are conveniently 20 located near restaurants, shopping centers and Wifi 21 hot spots. Tesla has--has deployed over 3,644 super chargers worldwide and over 1,841 in the United 2.2 23 States. Of those, 52 are located in New York. This network allows free long distance travel for our 24 customers on the most popularly traveled routes. 25 The

company is working rigorously to improve and expand 2 3 the network anticipating that there will be hundreds 4 of thousands of Tesla EVs on the road in the next few Tesla supports issues that encourage the 5 vears. acceleration of sustainable transport including 6 7 improving current charging infrastructure. Bill 1124 8 will enable New York City to start the impact of 9 public charging across each borough, and the data will allow stakeholders to thoughtfully shape the 10 11 landscape for future charging projects. Markets 12 around the world including New York City are 13 experiencing increase in EV interest, and it's 14 critical that stewards of this technology shift to 15 prepare for the upcoming demand. Due to the volume of drivers in the Greater New York City Metro area, 16 17 Tesla encourages stakeholders to consider installing 18 charging solutions that meet driver expectations 19 including convenient parking and quick charging. 20 Both are challenging, but it is important for the large scale of option to do these at level 3 or quick 21 2.2 charging locations are made available to the public 23 in addition to level 2 chargers. In understanding the limited space in our dense open landscape, Tesla 24 encourages policy that can remove barriers to 25

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identify charging locations and expedite the approval
processes. Optimizing the approach to build out the
infrastructure will help ensure that the city can
accommodate the many drivers who rely on EVs for
their personal transport. Thank you for the
opportunity to provide this testimony. I welcome any
questions about the bill with Tesla.

9 KEVIN MILLER: Thank you, Chairman Rodriguez and the three of you to the Transportation 10 11 Committee. My name is Kevin Miller and I'm the Director of Public Policy for Charge Point, Charge 12 13 Point designs and sell electric vehicle charging 14 stations and network services. Charge Point is the 15 world's largest and most open electric vehicle or EV charging network with more than 27,000 level 2 and DC 16 17 fast charging spots including more than 870 in New 18 York State with 435 of those in those city. Every 4-19 1/2 seconds a driver connects to a Charge Point 20 station, and by initiating over 15 million charging 21 sessions, Charge Point drivers have driven over 330 million gas free miles. EVs have some great 2.2 23 properties. They're good for the environment, and they help to end our addiction to foreign oil. 24 People who drive them love them and, of course, they 25

2 need a place to be charged, and we need to ensure 3 that there is a robust charging infrastructure to 4 enable people to use those cars. Charge Point does not own the EV charging infrastructure, but we sell 5 our products and services to organizations that do 6 7 provide those services. So typically these are 8 apartment building owners, employers, cities, 9 counties, and parking garage operators. Each one has its own model for providing charging services. 10 For 11 most, but not all employers, it's a free service to 12 encourage clean transportation, and it's an employee 13 benefit. Apartment building owners will often charge for the service just as they do for a coin-op 14 15 laundry. Cities and counties charge cost recovery 16 fees in order to avoid nearly giving away electricity 17 at the taxpayer's expense. Some of these services 18 are free, some are included in rent, some pay per 19 use, and some are modified to elicit charging 20 behavior and the highest utilization of the asset. 21 We support the overall intent and purpose of Intro 1124, which is to make EV charging more accessible 2.2 23 throughout the five boroughs. New York State has made a commitment to put over 800,000 zero emission 24 vehicles on the road by 2025, and this statewide goal 25

2 will require strategies for deploying charging 3 infrastructure that work Upstate just like they will 4 in the city. The most critical barriers to the 5 widespread adoption of EVs in New York City are the vehicle cost. A minimal amount of publicly 6 7 accessible parking areas within walking distance of 8 workplaces, the lack of engagement with New York City 9 employers on the benefits of workplace charging, and the absence of curbside EV charging. With regard to 10 11 vehicle cost, the EV rebate included in the New York 12 State budget, which Charge Point hopes will be 13 allocated sufficient funding to reach as many New 14 Yorkers as possible comes as the price for EVs 15 continues to drop as battery technology improves. 16 With regard to EVs and the workplace in New York 17 City, Charge Point is partnering with CALSTART, the 18 New York City Department of Transportation, the 19 Northeast States for Coordinated Air Use Management, 20 Empire State Clean Cities Coalition to roll out the 21 Charge to Work New York City program. Charge to Work 2.2 NYC will build a stronger awareness of the benefits 23 of EVs among consumers reduce and user EV costs, directly reduce greenhouse gas emissions by up to 24 2,300 metric tons per year. [bell] For right access 25

2 to a growing network of Charge Point charging stations, and produce a variety of direct community 3 benefits including cleaners air, improved quality of 4 life, job growth and enhanced rebate opportunities 5 for veterans and employers who live--employees who 6 7 live and work in economically disadvantaged communities. Charge Point is enthusiastic about the 8 9 attention that the City Council is paying to the issue of curbside charging. We have experience in 10 11 deploying curbside stations in cities like Los 12 Angeles, San Francisco and Washington, D.C. We 13 strongly support any effort to expand access to charging, and also recommend that any decision to 14 15 shape EV charging infrastructure strategy in New York 16 be made in the context of the smart network of home, 17 multi-unit dwelling, workplace and public EV charging 18 services. We applaud the focus on data gathering in Intro 1124. Charge Point has data from every one of 19 20 our Smart network stations ever deployed, and we 21 would encourage New York City to harness the full range of data available to inform its charging 2.2 23 infrastructure priorities. Leveraging data from a network of smart chargers gives insight into charging 24 station utilization, unique users, vehicle types and 25

2 much more, which can all be viewed by any range of 3 geographic units from the zip code down to the city 4 block or any unit of time. So, we thank you for the opportunity to testify on behalf of Intro 1124, and 5 look forward to working with the committee, staff and 6 7 other Stakeholders to devise comprehensive strategies to accelerate sustainable and scalable growth of EV 8 9 charging in New York City. Thank you.

CHAIRPERSON RODRIGUEZ: I have two 10 11 questions and my colleagues also have. One is how do 12 you describe where the city is right now when we 13 compare with other cities throughout the nation or 14 throughout the world when it comes to moving more 15 intro electrical cars, electric cars and, therefore, 16 of course, like taking care of the whole 17 infrastructure because the chargers are important in order to make it? 18

19 KEVIN MILLER: Well, there--there are two 20 main drivers of EV adoption. One is EV rebates, and 21 the other it's access to charging. New York State 22 for a while had been behind the curve, but is now 23 getting ahead of the curve, and has taken the 24 initiative to incentivize EVs through direct rebates, 25 and we're working with a coalition to support the

2 full funding of that EV rebate as announced in the 3 New York State budget and the other has to do with 4 expansion of charging infrastructure. NYSERDA is going to be rolling out an incentive for EV charging 5 infrastructure. So we support all efforts to 6 7 continue a sustainable and scalable increase of 8 charging station access in the city. New York has 9 unique challenges when it comes to parking, and we-we have been partnering with the City Department of 10 11 Transportation as well as other stakeholders in 12 Office of Sustainability to address a comprehensive 13 strategy, and we would welcome working and providing any resources that we have available to the committee 14 15 to address those issues, and in New York City 16 specific fashion.

17 WILL NICHOLAS: I think owning a car in 18 New York City is different than most other urban 19 metropolises across the United States, but what we've 20 seen is we've--as a manufacturer, we've driven the cost down of electric vehicles. We foresee that the 21 2.2 adoption rate will only increase, and so while 23 parking remains hard for any vehicle, I thin that it's very important for this committee and for the 24 stakeholders to be mindful of what EV adoption will 25

2	look like not only right now, but in the years to
3	come. In my testimony, I had mentioned that we have
4	\$35,000 model coming out. Other manufacturers, BMW,
5	General Motors also have vehicles at that price point
6	on the way. So, I think that it's very critical to
7	considering the type of charging that will be
8	necessary at all places that have parking whether
9	they're public, multi-unit or private.
10	KEVIN MILLER: And if I may, one more
11	comment, in some models that we've seen across the
12	state, the more successful ones have been where we
13	bring in a broad group of stakeholders from the
14	utilities to private actors to site hosts to make
15	sure that everyone has skin in the game. There are
16	some assets that are best managed at the larger
17	scale. So we've seen sustainable models that focus
18	on utility partnership, and there are ways that we
19	can encourage that to happen. We're working with
20	Con-Ed and the State government is also encouraging
21	that and we'll be focusing on that through the right
22	(sic) proceedings that are coming forth, but bringing
23	more actors to the table, and highlighting this at
24	the level that you are is an important step.

2 CHAIRPERSON RODRIGUEZ: Great. Which 3 (off mic)

WEILL NICHOLAS: Which city? Well, the-40% of the EV market is out of California. So, you
know, I think it's safe to say that it might be Los
Angeles as the top city, but New York is in the top
ten of metro areas across--across the country I
believe fourth or fifth for EV adoption.

10 KEVIN MILLER: Agreed. Los Angeles and 11 other West Coast cities, San Francisco, Portland, 12 Seattle and on the East Coast I think, you know, it's 13 certainly not comparable in terms of size or density, 14 but Atlanta and parts of Miami as well, are--are 15 leading kind in the issues with charging 16 infrastructure.

17 CHAIRPERSON RODRIGUEZ: Great. Council18 Member (off mic).

19 COUNCIL MEMBER CONSTANTINIDES: Thank you 20 Chair Rodriguez. So what--what can we learn from Los 21 Angeles. What type of network have they put together 22 that sort of makes them the cream of the crop?

KEVIN MILLER: Some of the important work that's been taking place in California has to do, as I mentioned, by bringing in utility partners to take

2 on the cost of infrastructure that can be prohibitive, the insulation piece not for the 3 4 charging station itself, but for the connections between the grid and the charging station. 5 So by expanding their role into that long-term asset, that 6 has been a key to unlocking the potential of the 7 8 There are statewide policies there, which market. 9 have driven the focus towards adoption of EVs and infrastructure, and that's something that we're 10 11 seeing happen in New York State now, but there are 12 city level policies such as the ones that are on the 13 table that can highlight the potential for growth. 14 So there are some factors that if we bring 15 stakeholders together at the city level, we can 16 encourage state level policies to continue to shape a 17 scalable model that isn't reliant on--on grant 18 funding, but that can be scalable and sustainable. 19 And I think only 0.5% of any of our stations across 20 the country are tied to grant dollars. So you need to make sure that the model for continuing to drive 21 growth in EV charging infrastructure is one that 2.2 23 can't get the rug pulled our from under it. That can stand up on its own two feet, and that's what we've 24 seen with our model. 25

2 COUNCIL MEMBER CONSTANTINIDES: I mean 3 I'm looking at, you know, the Administration's 4 testimony, and I think some of the things that they spoke about are all things that we should be doing in 5 looking at opportunities to place them near retail 6 7 sectors makes a lot of sense. Looking at opportunity 8 to put them near park and rides, near public 9 transportation. That makes sense as well, but I think that as part of a scalable model of the--the 10 11 fundaments of 1124 like having residential on-street 12 parking should be part of that larger network. And I 13 think that if we build the comprehensive network, we will make it easier. But people are continuing to 14 15 buy cars, and if my care is a 120,000 miles, it's 13 16 years old, I've got maybe a year left on my car, I'm 17 going to want to purchase a new vehicle. But if you-18 -if you have infrastructure, as I said before, it has 19 to be as easy to be green as it is traditional, and 20 people just are not going to make that green choice 21 because they are--it's either too complicated or too 2.2 expensive. If we can take the complication away, I 23 really believe that people will make their choices based on green values. I don't know if you want--24

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2 it's not really a question, but if you want to 3 comment on any of that statement.

4 KEVIN MILLER: We're thinking all of the above approaches typically is why you need to 5 consider all of the different venues for charging and 6 7 making sure that the pilot that gets rolled out is just done in context with some of the other venues 8 9 that you've highlighted is important. But it's not to say that one shouldn't consider one option because 10 11 you're doing others right, and all the above approach 12 is necessary in making sure that you look at retail 13 stores. You know, you can have two hours of free charging by a site host. If they decide to offer 14 15 that to bring customers there, there are a lot of 16 economic development opportunities with these killing 17 two birds with one stone. But that's not to say that 18 we shouldn't consider all options on the table.

WILL NICHOLAS: Yeah, a second on that.
I think it would be education and--and marketing to
business owners and employers to provide this type of
charging will only help increase the amount of
charging in the pervasiveness of charging that's-that's offered throughout New York. I think that,
you know, the Brooklyn Navy Yard is an example.

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2	We're certainly working with them to make sure that,
3	you know, as they begin construction we can partner
4	to provide that type oftype of charging convenience
5	and it will not only bring an added benefit to the
6	patrons, but it can an improved economic situation in
7	the Navy Yard and the tenant itself because they are
8	then attracting the type of folks that would like to
9	do business, but also recharge their cars while
10	they're doing so.
11	COUNCIL MEMBER CONSTANTINIDES: Okay,
12	thank you. Thank you, Mr. Chair.
13	CHAIRPERSON RODRIGUEZ: Great. [off mic]
14	the conversation of, you know, as I said, private and
15	public have to be working together to, you know,
16	respond to something that is important for our
17	consumers. And that's the city, you know, that we
18	also can be in the same place or leading of the city
19	when it comes to innovation. So thank you
20	KEVIN MILLER: Thank you.
21	WILL NICHOLAS: Thank you.
22	CHAIRPERSON RODRIGUEZ: Yes. So the
23	nextI'm sorry. I'm sorry, if you don't mind in
24	yourI want to give the opportunity to Council
25	Member Greenfield. He also have a few questions.

2	COUNCIL MEMBER GREENFIELD: I apologize
3	because I'm literally between two hearings at once.
4	It's a neat trick that we do here in the City
5	Council. I once again want to thank the respective
6	chairs for their commitment to passing this
7	legislation. I'm a proud to be a co-sponsor of the
8	legislation as well. I just wanted to say for the
9	record that I'mas the ads say I'mI'm not just
10	I'm not just a fan of Charge Point, but a member
11	myself. I have a card in my pocket, and I use it
12	widely. Not so for Tesla, quite frankly, because
13	you're too expensive on my civil servant's salary,
14	but I'm looking forward to the new \$35,000 car.
15	Maybe we canwe can afford that when it actually
16	comes out. My only questionmy only question is
17	well, I guess it's a two-part question. One is I
18	noticed that some of the newer charges don't fit with
19	my car, which is I guess a year old. What's with the
20	compatibility of the cars? Are they all sort of the
21	same across the board, or are there challenges in
22	terms of the usage of compatibility when it comes to
23	these electric charging stations?
24	KEVIN MILER: There are two primary
25	technologies for charging, two families of charging

2 and I believe the Mayor's Office of Sustainability 3 flagged that some stations can handle one or the 4 other. Charge Point does have products that can fit all ports, and that's important part of--that you're-5 -that you're highlighting, counselor, is the 6 7 transparency and the open accessibility so that folks 8 who need a charge know where to go to get it. There 9 are publicly available data sets hosted nationally that identify the types of charging stations and the 10 11 types of cars they support. These are conversations 12 that are happening I believe on the auto side. То 13 the extent that you can make charging as barrier free 14 to the driver as possible is critical. On Charge 15 Point's front, you know, we're working with a range 16 of charging stakeholders to make it possible to have 17 a membership in any charging station network and use 18 the--that to access any other charging station 19 networks, the chargers. So we need to make sure that 20 we're reducing barriers to -- to charging services, and 21 that's an important issue to highlight. 2.2 COUNCIL MEMBER GREENFIELD: And then my 23 question for Tesla actually is, you know, my experience when I was looking for an electric car it 24

was actually difficult. Quite frankly, most of the

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2	dealers that I went to they weren't interested. I
3	rebuffed me. Do you find that's sort of a similar

4 experience that dealers for whatever reason push 5 people away from electric and towards gas cars? 75

They

WILL NICHOLAS: I think that's one of the 6 7 primary reasons why we're so committed to owning and 8 operating our own stores. We see them as educational 9 outposts as we understand that making a shift in one 10 of the most important or--and expensive purchases 11 that you make requires a lot of education. And so, 12 we're committed to providing that education on a large scale, and I think that's because electric 13 14 vehicles is as you know require less service, that 15 tends to be a very significant revenue stream for 16 dealership. And when they can't count on the--the 17 service that an electric vehicle would have compared 18 to an internal combustion engine, I can understand 19 why they would make business decisions to focus on the sale of a, you know, petroleum based vehicle and 20 not an electric car. 21

COUNCIL MEMBER GREENFIELD: Thank you. I have to go back to my other hearing, but I appreciate it. Take care.

WILL NICHOLAS: You, too. Thank you.

COUNCIL MEMBER CONSTANTINIDES: Thank you 2 3 Council Member Greenfield. On--on behalf of Chair 4 Rodriguez I thank you both and look forward to working with the industry and having a more robust 5 conversation on electric vehicles. Thank you. 6 7 KEVIN MILLER: Thank you, Council. COUNCIL MEMBER CONSTANTINIDES: The next 8 9 panel will be Kimberly Ong from the Natural Resources Defense Council; Christina Foccacia (sp?). I'm sorry 10 11 about that if I pronounced it wrong, and R.G. Evgo 12 (sp?) and Bethany Bowyer from Downtown Brooklyn 13 Partnership. If you can all come forward and the 14 attorney will swear you in. 15 [background comments] 16 COUNCIL MEMBER CONSTANTINIDES: Oh, well, 17 I--I just--if that works, I mean. [pause] All 18 right, great. Fantastic. If you can begin on the 19 left there and then work your way over, that would be 20 great. Thank you. 21 KIMBERLY ONG: Good morning. I guess, 2.2 Chairman Rodriguez--Rodriguez is busy, but good 23 morning, Mr. Constant--Constantinides. My name is Kimberly Ong and I'm an attorney at the Natural 24 25 Resources Defense Council. As you probably know,

2 NRDC is a national non-profit legal and scientific 3 organization that has been active on a wide range of 4 environmental issues around the globe and right here in New York City since its founding in 1970. 5 Ι appreciate the opportunity to testify before you 6 7 today. We submitted written comments so I'm just going to summarize them here since it looks like 8 9 we're running kind of late. NRDC strongly supports Intro 1124. We are convinced that installing 10 11 curbside electric vehicle charging stations would 12 encourage the widespread adoption of electric vehicles, which in turn would reduce the greenhouse 13 14 gas emissions and improve air quality in the city. 15 NRDC encourages the adoption of electric vehicles in 16 New York City because it's necessary to combat both 17 climate change and air pollution. A study by NRDC 18 and the Electric Power Research Institute found that 19 widespread electric vehicle use nationwide could cut 20 carbon pollution by 550 million metric tons annually in 2050 equivalent to the emissions from 100 million 21 2.2 passenger cars. On the regional level, New York 23 State has signed an agreement with seven other states to collectively put 3.3 million zero emission 24 vehicles on the road by 2025. New York's share is to 25

place approximately 820,000 zero emission vehicles on 2 3 the roads in the next nine years. As of early 2016, 4 there were only about 12,000 zero emission vehicles in New York State. Therefore, a nearly 70 fold 5 increase will be required in the next decade to meet 6 7 the State's commitment. Widespread electric vehicle 8 use would also combat ozone and particulate matter 9 pollution since electric vehicles do not emit pollution from the tailpipes unlike gas power 10 11 vehicles. Both ozone and particulate pollution can 12 aggra--aggregate--aggravate asthma and other lung 13 conditions, and cause premature death in people with 14 heart and lung disease. In 2013, 2,700 premature 15 deaths were tied to ozone and fine particulate matter related health issues, eight times higher than the 16 17 number of people who died from murder. The lack of 18 public charging stations in New York City is a major 19 impediment to progress in electric vehicles. There 20 are only 260 publicly available charging stations 21 within the city limits, and the vast majority of them 2.2 are located in private parking facilities in 23 Manhattan. This shortage of available charging stations can lead to range anxiety which can serve as 24 a barrier to electric vehicle adoption. 25 With

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curbside charging stations in all five boroughs, 2 3 drivers across the city would be able to plug in more 4 maximizing the use--usefulness and benefits of electric vehicles. Charging stations would also 5 serve as a symbol educating New Yorkers about the 6 7 benefits of electric vehicles and reminding us all 8 that climate change is not only real but happening to 9 us now, and that there are practical solutions to this global problem. If the Council were to adopt 10 11 this legislation, it would be following sensibly in 12 the footsteps of other progressive cities. For 13 example, Washington, DC has already installed at 14 least 20 charging stations on its city streets. The 15 City of Amsterdam has over 1,000 public charging 16 stations and aims to have 4,000 charging points by the year 2018. When Indianapolis completes their 17 18 electric vehicle program, it will have 200 charging 19 stations on the streets. In addition, cities like 20 Baltimore, Boston, Burbank, Oslo, Paris, London and Berlin have all moved successfully to implement 21 electric vehicle charging station programs. 2.2 [bell] 23 In short, NRDC believe s that Intro 1124, if enacted, would reduce reliance on dirty fossil fuels, cut 24 climate change emissions and reduce air pollutants 25

for residents of neighborhoods across New York City.
We thank you, Mr. Chairman for holding this hearing
and for your leadership on this issue. NRDC
certainly supports the proposed legislation. Thank
you.

7 BETHANY BOWYER: [off mic] Good afternoon. [on mic] Good afternoon, now. Chairman 8 9 Rodriguez and Constantinides. My name Bethany I'm the Deputy Director of Real Estate and 10 Bowver. 11 Planning at the Downtown Brooklyn Partnership, and I'm here to--this afternoon just to voice our strong 12 13 support for the proposed legislation to help launch 14 electric vehicle infrastructure in New York City. As 15 you may know, the Downtown Brooklyn Part--Partnership 16 is a not-for-profit economic development organization 17 overseeing three major business improvement districts 18 that serves also the growth of Downtown Brooklyn as a 19 thriving business retail, cultural, educational and 20 resident neighborhood. As the largest commercial district outside of Manhattan, Downtown Brooklyn is 21 2.2 also along with the Brooklyn Navy Yard in Dumbo part 23 of the Brooklyn Triangle, which has become a magnet for the world's pioneering and creative entrepreneurs 24 and has emerged as one of the largest tech clusters 25

2 in New York City. Since the release of the Brooklyn 3 Tech Triangle's Strategic Plan the innovation an 4 economy in Brooklyn is stronger than ever now supporting more than 1,350 innovation companies, 22% 5 6 more than just three years ago, and that supports 7 over 17,000 jobs. To continue the growth of the Tech 8 Triangle, we believe the area must be supported by 9 innovative infrastructure and electric infrastructure is a great way to do that. In addition to our 10 11 innovation economy, Downtown Brooklyn is home to more than over 60,000 office workers, more than 60,000 12 13 college students many of whom commute from further out within the borough, and a tremendously growing 14 15 residential population. Because of all of this, we 16 believe Downtown Brooklyn is an excellent location 17 for the City and DOT to launch Brooklyn's Electric 18 Vehicle Pilot Program. And because of our 19 relationships and convening power with utilities and 20 the real estate community, we look forward to working 21 with the City and the private sector in furthering 2.2 electric vehicles. As you likely know, electric 23 vehicles also emit 70% less carbon per mile traveled than conventional vehicles. Their adoption can 24 greatly reduce local air pollution especially in 25

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traffic heavy neighborhood such as Downtown Brooklyn. 2 3 As the city moves to hopefully adopt this pilot 4 program, we urge that the City install at least seven 5 charging stations per borough, consider the creation of a mobile app that will allow drivers to see when a 6 7 charging station becomes available, and perhaps 8 reserve on. And to continue preparing a more robust 9 electric vehicle infrastructure network. As we prepare for Earth Day later this week, we commend you 10 11 at the City Council for putting together this piece of legislation that will further New York City's 12 13 growth as a cleaner and more innovative city, and 14 thank you for your time. 15 [off mic] Hi, Good morning or good 16 afternoon. 17 SERGEANT-AT-ARMS: [off mic] Use the 18 mic, please. Use the mic. 19 CHRISTINA FOCACCIA: Oh, good afternoon, 20 Chairman Rodriguez and Chairman Constantinides. I'm 21 Christina Focaccia (sp?) with Energy E-Z-GO where I work on building partnerships that promote the 2.2 23 adoption of electric vehicles. Energy E-Z-GO owns and operates over 545 EV fast-charging electric 24 vehicles--vehicle charging stations in the U.S. 25

Energy E-Z-GO applauds the New York City Council for 2 3 its commitment to improving our environment through promoting reduced greenhouse emissions and 4 5 encouraging electric vehicle adoption. E-Z-GO supports NYC Council Bill Intro 1124, a Local Law to 6 7 establish a pilot program for installation--for the installation of street parking electric vehicle 8 9 charging stations. The need to assess and pilot installing street parking EZ changing stations is 10 11 important in service residents and visitors committed 12 to driving a zero emitting vehicle in New York City. There is a need so remove the barrier of EZ charging 13 14 options that are limited by types of publicly 15 accessible and available easy charging in NY--in New 16 York City. There is a need to address and streamline 17 permitting and processes for how E-Z charging can be 18 co-located on our streets, whether directly on street 19 or allowing for a process that does not hinder a 20 suitable charging location due to its proximity or 21 overlap onto New York City streets, sidewalks and 2.2 parking right-of-ways. Piloting this is an 23 appropriate way to assess and address these issues, and barriers associated with the growing adoption of 24 Energy-E-Z-GO holds one of the largest and 25 EVs.

fastest growing electric vehicle DC fast charging 2 3 networks in--in the country with over 540 DC fast charging sites in the country in partnerships with 4 5 major EV manufactures like Nissan and BMW. E-Z-GO's number one priority is taking care of its E-Z driving 6 7 customers and OEM clients. With this, we bring 8 experience on best methods of installing EZ charging 9 that promotes EZ ownership and adoption within a given market. Our DC fast charge stations are being 10 11 equipped with the capability to support both SE CCS 12 size standard and the Chatama standard with--that 13 with an adapter, Tesla's vehicles can also access. 14 In addition--sorry--E-Z-GO is also experienced with 15 installing and managing lower level E-Z Charging, 16 level 2 charging both collate--co-located at our 17 public retail DC Fast Charge sites, and that we're 18 placing at multi-unit residential sites will, which 19 will allow for the connection with J70--J1772 20 standards. Currently, there are over 2,000 21 registered EVs within the five boroughs and growing with closer to an additional 8,000 registered in 2.2 23 surrounding areas. The availability of close to 10,000 EVs looking to charge in NYC today requires 24 many more chargers than currently available. 25 То

allow for increased EV adoption, a significant number 2 3 of EV charging stations and allowable throughput is 4 In support of the bill, E-Z-GO recommends needed. that the New York City Council better serve EV 5 drivers by considering EV chargers--charging 6 throughput created by the bill versus the number of 7 8 charging stations. Remitting the number of charging 9 sites from 10 to 35 at certain charging stations levels in capacity will serve a very low number of EV 10 11 drivers. However, [bell] in support of the bill as a 12 lower number of stations is steady, DC Fast Charging is a more suitable solution that allows for EV 13 drivers to charge at a single site in a--as fast as 14 15 20 or 30 minutes versus 48 hours at lower charging station levels. E-Z-GO also recommends not limiting 16 17 the number of stations to up to seven per borough or, 18 therefore, 35 for all New York City during the pilot 19 period and expand the number of chargers to include 20 and allow for more chargers to be sited as needed. 21 Finally, for on-street charging to work effectively, 2.2 it is essential that on-street EV only parking spaces 23 be properly enforced. We urge the City Council to work with both DOT and NYPD to establish clear 24 enforcement protocols so that New Yorkers can easily 25

2 understand their rights and responsibilities when 3 parking at these locations. We thank New York City 4 Council for its support of EV adoption and leadership 5 through the proposal of this bill.

CHAIRPERSON RODRIGUEZ: Great. I'd like 6 7 to say thank you for sharing your testimony and to 8 everyone. I think that we are in a good a place like 9 knowing that the Administration is open to continue this conversation knowing that there's an interest 10 11 from the private sector and knowing most of the 12 important institutions such as the one that you 13 represent also are in support of this. You know, 14 it's always good to have a hearing knowing that 15 there's a good level of support for it especially when it comes to the Administration being open to 16 17 this. So we will continue working with my colleague, Council Member Constantindies and the rest of the 18 19 team, and we will continue the conversation. 20 CHRISTINA FOCACCIA: Thank you. 21 CHAIRPERSON RODRIGUEZ: Thank you and 2.2 with that, this hearing is adjourned. 23 BETHANY BOWYER: Thank you. 24 CHRISTINA FOCACCIA: Thank you. 25 [gavel]

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CERTIFICATE

World Wide Dictation certifies that the foregoing transcript is a true and accurate record of the proceedings. We further certify that there is no relation to any of the parties to this action by blood or marriage, and that there is interest in the outcome of this matter.



Date _____ May 13, 2016