CITY COUNCIL CITY OF NEW YORK ----- X TRANSCRIPT OF THE MINUTES Of the ENVIRONMENTAL PROTECTION COMMITTEE -----Х November 28, 2016 Start: 10:05 a.m. Recess: 11:44 a.m. HELD AT: 250 Broadway-Committee Room B E F O R E: Costa G. Constantinides COUNCIL MEMBERS: Stephen T. Levin Rory I. Lancman Eric A. Ulrich Donovan J. Richards World Wide Dictation 545 Saw Mill River Road - Suite 2C, Ardsley, NY 10502 Phone: 914-964-8500 * 800-442-5993 * Fax: 914-964-8470

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

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2 CHAIRPERSON CONSTANTINIDES: Morning, I am Costa 3 Constantinides of the Environmental Protection 4 Committee and today the committee will hold an 5 oversight hearing on in-city power plants and 6 resolution 320 calling on the state of New York to 7 phase out the use of four and six fuel oil in power 8 plants in it's plan to meet the carbon dioxide 9 reduction goals. Before I begin my statement, I want 10 to... if anyone hasn't signed in to testify please see 11 the Sergeant at Arms. Please fill out one of these 12 forms, please make sure that you are able to testify 13 using one of these forms. Thank you. Today New York 14 City's electrical grid serves more than three million 15 costumers, including 8.3 million people. These costumers consume about 1.4 percent of all 16 17 electricity produced in, in the country with peak 18 daily demand loads between 11,000 and 13,500 19 megawatts of electricity. According to ConEdison the 20 peak demand record for the city's electrical grid 21 13,322 megawatts was set on July 19th, 2013 at five 2.2 p.m. The electrical grid system generally consists of 23 three parts; power generation, transmission lines, 24 and distribution network. The city's system consists 25 of 24 electricity of generating power plants that are

located within or directly connected to the city, 24 2 3 sub... of sub... transmissions to substations, 16 import 4 lines that originated outside the city, 50 area substations underground distribution, overhead 5 distribution. This hearing will focus on the 24 in 6 city power plants and their impacts on the 7 8 communities that surround them. The Department of 9 Environmental Conservation, the state DEC, issues permits for the emission of air pollutants including 10 11 the permits which are issued to in city power plants pursuant to the Clean Air Act of 1990. The Clean Air 12 13 Act regulates the emission of pollutants into ambient 14 air. Individual companies own and operate in-city 15 power plants and sell the power they have produced to 16 the NYS... S... the NYISO, utilities such as ConEd or 17 directly to consumers. The vast majority of in-city 18 power plants are located along the water front with 19 more than half of the cities in city power generation 20 capacity concentrated in Astoria and Long Island 21 city, Queens. Nearly two-thirds of the in city power 2.2 plants are also located within the 100th year flood 23 plain and are expected to be impacted by projected future sea level rises of up to 2.5 feet by 2050. 24 These locations pose a risk to the city's resiliency 25

and security in the face of climate change and rising 2 3 sea levels. In addition to being concentrated along 4 the water front the in city power plants are concentrated in close proximity to environmental 5 justice communities, low income communities, 6 7 communities of color or both. Power plants emit air pollutants as they burn fossil fuels in order to 8 9 generate electricity and the pollutants are very bad for human health and particularly bad for children 10 11 with developing lungs. These pollutants include particulate matter, nitrogen oxides, and sulfur 12 13 dioxide, particulate matter, especially PM2.5, the 14 fine particles which may deeply penetrate lung tissue 15 are also formed secondarily from gaseous precursors 16 such as sulfur dioxide, oxides of oxygen and organic 17 compounds. Inhalation of particulate matter cause 18 shortness of breath, aggravated asthma, chronic 19 bronchitis, decreased lung function, allergies and 20 acute respiratory systems. Nitrogen oxides combine 21 with volatile organic compounds in the air to form ground level ozone or smog which can cause a variety 2.2 23 of respiratory problems including aggravated asthma, decreases in lung capacity, and increase 24 susceptibility of respiratory illness. Inhalation of 25

sulfur dioxide results in adverse effects on 2 3 breathing, respiratory illness, alterations in pulmonary defenses, and aggravation of existing 4 cardiovascular disease. A closer a community is 5 located to a source of pollution the greater the 6 impact of the pollution. Power plant siting is 7 8 usually permanent and researched using the Department 9 of ... the New York City's Department of Health and mental hygiene environmental and health data portal 10 11 has associated the following negative impacts with such siting. Each community which hosts power plants 12 either has worse air quality than those that do not 13 host such facilities and communities down wind of 14 15 such plants generally suffer from greater rates of respiratory disease than other communities. Studies 16 17 have found a significant elevation in rates of 18 hospitalizations for respiratory diseases among 19 individuals who live near a fossil fuel fired power 20 plant after adjusting for age, sex, race ethnicity, and urban rural residents. According to research 21 respecting the, the effects of particulate matter 2.5 2.2 23 on respiratory hospital admissions in children there is an association with a man made combustion sources 24 and hospital admissions for childhood respiratory 25

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2 disease. Some in, in city power plants have become 3 less polluting over recent years mainly due to the 4 transition to natural gas as a primary source of fuel however other in city power plants continue to use 5 number four and number six oils, residual fuels that 6 7 contain a higher percentage of contaminants and 8 produce greater particulate emissions than two oil or 9 natural gas. At least five in-city power plants burned 19,262,000 gallons of six oil last year in 10 11 2015. To achieve further pollution reductions and air 12 quality improvements the power plants must be improved further. The elimination of number six oil 13 14 will reduce particulate matter emissions by about 95 15 percent, sulfur dioxide emissions by about 68 percent, and nitrogen oxide by about 65 percent. 16 17 Switching from number six oil to natural gas which we 18 should still try to do better than natural gas would 19 reduce particulate matter emissions by 96 percent, 20 sulfur dioxide emissions by 99 percent, and nitrogen 21 oxide by about 75 percent. In terms of global warming pollutions switching from number six to number two 2.2 23 oil reduces heat trapping CO2 emissions by about seven percent and natural gas reduces carbon and two 24 emissions by about 30 percent compared to number six 25

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oil. These fuels have the highest sulfur content of 2 3 all fuels commonly used for heating. Heavy residual 4 fuel oils also contains large amounts of impurities 5 such as nickel and other metals. As a result burning number six oil releases fine particulate matter with 6 7 high levels of nickel than either two oil or natural gas. Number fuel oil ... number four fuel oil is a mix 8 9 of number six residual oil and a cleaner burning number two oil and emits significant amounts of 10 11 nickel. Another way to improve air quality in 12 communities impacted by a power plant is re-powering, 13 re-powering these plants would combine cycle units 14 that are able to capture and reuse the waste heated 15 heat to generate additional electricity can boost 16 efficiency from 30 percent to 60 percent. All other 17 plants could be replaced with newer more efficient 18 combined cycle power plants to make the in-city power 19 plants cleaner. Everyone enjoys the benefits of a 20 modern society including the ability to turn on 21 lights and electrical equipment but the burden of electricity generation falls heavily on environmental 2.2 23 justice communities. Equity demand that the burden be lessened on our most vulnerable communities. I'd like 24 to now hear from our administration, I want to thank 25

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you all for being here today and I hope you all had a
wonderful Thanksgiving holiday. Samara if can swear
in our witnesses please.
SAMARA SWANSON: There we go. Thank you.
Okay. Would you please raise your right hand, do you
swear affirm to tell the truth, the whole truth and
nothing but the truth today?
SUZANNE DEROCHE: Good morning Chair
Constantinides and members of the committee. I am
Suzanne Deroche, Deputy Director of Infrastructure
Policy in the Mayor's Office of Recovery and
Resiliency. I am testifying today on behalf of both
ORR and the mayor's office of sustainability. Thank
you for this opportunity to speak about in city
power plants and the De Blasio administration's
efforts to improve air quality in New York City. I
am joined here today by my colleagues Anthony
Fiore, deputy commissioner of the Department of
Citywide Administrative Services; Geraldine Kelpin,
Director of Air and Noise Policy Enforcement at the
Department of Environmental Protection and Iyad

Kheirbek Director of Air Quality Program at the

begin I would like to thank the Speaker and

Department of Health and Mental Hygiene. Before I

Chairperson for their support of the De Blasio 2 3 Administrations Action on Climate Change. The 4 political dynamics in Washington have made the 5 council and administration's partnership more important than ever. While the incoming 6 7 presidential administration raises more questions than answers for now I want to assure the council 8 9 that whatever changes occur the De Blasio administration will continue working every day to 10 11 prepare our city for the impact of climate change 12 as well as provide more just environmental outcomes 13 for all New Yorkers. To understand how the city's 14 power plants affect air quality it is necessary to 15 look at the broader emissions landscape in New York 16 City. Air pollution is mainly a result of fuel 17 combustion within and outside the city. According 18 to the U.S. Environmental Protection Agencies 19 national emissions inventory in New York city 49 20 percent of all fine particulate matter, PM2.5 21 emissions come from buildings, 24 percent from 2.2 traffic, 19 percent from non-road mobile sources, 23 seven percent from electric power generation, and one percent from other sources. According to the 24 New York City Community Air Survey, NYCCAS, from 25

2	2009 to 2014, the most important predictors of high
3	neighborhood levels of PM2.5 and nitrogen dioxide
4	are indicators of traffic density and building
5	density. Looking more closely at power plants there
6	are 24 in city power plants containing 221 I'm
7	sorry, 121 generating units with a combined
8	capacity of approximately 10,000 megawatts enough
9	to meet over 80 percent of the city's peak demand
10	as required by New York Independent System Operator
11	or NISSO. The majority of the generating units rely
12	on natural gas as their primary fuel and different
13	types of fuel as back up which is required to meet
14	reliability standards. Burning natural gas and fuel
15	oil impact air quality in particular heavier fuels
16	emit harmful air pollutants at a higher rate than
17	other fuels used in power plants in the city. The
18	age of the power generating equipment is another
19	factor impacting air quality. In Astoria Queens,
20	which is home to the densest cluster of power
21	plants in New York City, there are five major plant
22	facilities with 29 generating units of which three
23	are ten years or younger operate primarily on
24	natural gas and use fuel oil number two and
25	kerosene for back up. These three newer plants

2 which generate 91 percent of energy produced in 3 Astoria are more efficient and emit less air 4 pollution and green house gases relative to each 5 unit of energy produced than the older plants. While all New Yorkers have a stake in improved air 6 7 quality there are disparities within the city in 8 both exposures and pollution attributable health 9 outcomes. Exposures to air pollutants can affect the cardiovascular and respiratory system, increase 10 11 risks of hospitalization, emergency room visits, 12 and premature death. Poor health outcomes can also 13 result in lost work and school days adversely 14 impacting individual and city wide economic 15 prosperity. The DOHMH has clearly documented that 16 poor health outcomes resulting from poor air 17 quality occur disproportionately in high poverty 18 communities. For example, the rate of asthma 19 emergency room visit ... visits attributable to PM2.5 20 is three times higher in the most disadvantaged 21 neighborhoods compared to the most affluent ones. 2.2 Reduction in pollution admissions from predominant 23 sources throughout the city will help reduce these health disparities. While there is clearly work to 24 be done air quality in our city has greatly ... has 25

improved greatly in the past decades with harmful ... 2 levels of harmful air pollutants in the past few 3 4 years well below concentrations of just ten years 5 ago. According to the NYCCAS the largest ongoing street level urban air monitoring program of any 6 7 U.S. city between 2009 and 2014 the average annual 8 concentration of PM2.5 declined significantly by 9 about 16 percent. As a result, the city's air quality ranking among major U.S. cities has 10 11 improved from 7th place to 4th place. A key factor 12 in this has been the phase out of the use of the dirtiest heating oils in buildings. In 2011 DEP 13 14 issued regulations requiring buildings to convert 15 from number six to number four heavy heating oils 16 to cleaner fuel. The phase out of all number six 17 heating oil was completed June 30th, 2015 while the 18 deadline for the phase out of number four is 19 January 1, 2030. To date DEP has achieved 99.8 20 percent compliance with the regulation. Nearly 21 6,000 buildings have converted to cleaner fuels 2.2 with assistance provided through the New York City 23 Clean Heat Program. By January 2030 when the phase out is complete the city will have prevented nearly 24 1500 tons of PM2.5 from entering our air. As these 25

buildings have switched to a cleaner burning fuel 2 3 New York City's air quality has improved preventing 4 approximately 210 premature deaths and 540 5 hospitalizations annually. Neighborhoods with the highest density of boiler conversions such as 6 7 northern Queens, northern Manhattan, and the south 8 Bronx saw the greatest improvement in air quality 9 with the greatest proportion of health benefits occurring in vulnerable high poverty areas. 10 11 Moreover, in May 2015 the city working with the 12 council enacted changes to the air pollution control code local law 38 of 2015. the law went 13 14 into effect in May 2016 and requires all permitted 15 entities including in city power plants using steam 16 generating boilers for electricity generation to completely phase out the use of number six by 2020 17 18 and number four by 2030 thereby prohibiting any use 19 of number six or number four fuel oil in the city. 20 We are not stopping there, in September 2014 the city committed itself to reducing green house gas 21 emissions by 80 percent by 2050 with an interim 2.2 23 target of 40 percent by 2030 and we took immediate steps to achieve that goal. We committed billions 24 of dollars to reduce our own, our own carbon 25

1	ENVIRONMENTAL PROTECTION COMMITTEE 15
2	footprint with investments in energy efficiency for
3	municipal buildings. In 2015 with the release of
4	one NYC we expanded our commitment to 80 by 50 with
5	new investments in renewable energy, electric
6	vehicles, and solid waste management that are
7	catalyzing air quality improvements across the
8	city. We want this trend to continue. That is why
9	we are moving away from fossil fuels. Since Mayor
10	De Blasio took office the city has nearly
11	quadrupled it's solar energy capacity from 25
12	megawatts to 96 megawatts. This puts us on track to
13	meeting our to meet our goals of installing 100
14	megawatts of solar power on public buildings and
15	250 megawatts on private buildings by 2025. This
16	past September the mayor set a new goal of 1,000
17	megawatts per… for a citywide solar capacity by
18	2030. To put this in context 1,000 megawatts of
19	solar capacity can meet the power needs of more
20	than 250,000 households. To better utilize this
21	energy the mayor also set the city's first ever
22	energy storage target of 100 megawatt hours by
23	2020, this target will help reduce reliance on
24	fossil fuels and increase the city's energy
25	resiliency. With 1NYC the city is committed to
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1	ENVIRONMENTAL PROTECTION COMMITTEE 16
2	inclusive energy inclusive climate action that
3	works for all New Yorkers. This means continuing to
4	improve air quality city wide and in particular,
5	alleviating disparities across communities
6	especially for vulnerable populations. Here are
7	there… here are the several steps we intend to
8	take; first give the… given the share of air
9	pollutants coming from older power plants like
10	those in Astoria the city will continue to
11	encourage re-powering of older generation
12	equipment. Although previous attempts to remove
13	potential barriers to re-powering were unsuccessful
14	the city will continue to evaluate possible rule
15	changes and other options to encourage the closure
16	or re-powering of older power plants. Replacement
17	or re-powering of older plants will also help meet
18	our 80 by 50 goal. Second, the city will continue
19	to pursue expansion of the electric transmission
20	system to provide its residents and businesses
21	greater access to renewable sources resources
22	located in other regions. To this end, in September
23	2016, the city submitted comments to the NISSO
24	encouraging it and the New York state Public
25	Service Commission to undertake a comprehensive

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2 review of the infrastructure required to deliver 3 large scale, clean, renewable energy from upstate 4 New York to the city. Lastly, the city is actively 5 working to integrate large scale renewable resources directly into New York City's supply mix. 6 7 We are evaluating the technical and financial phase ability as well as the benefits of direct links 8 9 between the electric system in the city and different types of renewable resources. Combined, 10 11 these steps will help facilitate the retirement of 12 older, less efficient plants while preserving the 13 reliability of the electric system. Equally 14 important they will also continue to move us 15 towards our 1NYC goal of having the cleanest air of any large city in the country. Thank you for the 16 17 opportunity to testify. We share your goals and to 18 protect and improve air quality in New York City to 19 benefit all New Yorker's health and the city's 20 economic prosperity. We are happy to answer your 21 questions. 2.2 CHAIRPERSON CONSTANTINIDES: Thank you for 23 your testimony. And on a side note just I wholeheartedly agree with your testimony when it talk ... 24

comes to the new administration and our partnership

ENVIRONMENTAL PROTECTION COMMITTEE 18

has never been more important to protect air quality 2 so thank you for the great work that you do and please 3 pass that along to the mayor. So, talking about in 4 5 city power plants was just going to do a little bit of a dive, is there any technical reason that they 6 7 need to... that these power plants need to burn four and six oil that they can't make that transition sooner, 8 that, that they've chosen to continue to burn it even 9 though that we know that this date's coming up where 10 11 they have to phase it out? 12 ANTHONY FIORE: So the, the technical

13 issues really rely, you know around changing 14 equipment in order to use number two. There's, 15 there's no technical reason that number two can't be 16 used as an alternative fuel but those that use number 17 six currently have to change equipment and you know 18 accommodate the new fuel.

19 CHAIRPERSON CONSTANTINIDES: And those 20 that have number two capacity... I mean I know that 21 you're not, you're not the power company so I'm just 22 asking you to speculate but is that a choice on their 23 part to burn number six over number two or that's 24 just... is there still other... some type of technical

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1	ENVIRONMENTAL PROTECTION COMMITTEE 19
2	reason 'cause there are some plants that have that
3	are burning two that are also burning six?
4	ANTHONY FIORE: Yeah, I think if you look
5	at the plants that are burning number six there… only
6	apply to one type of technology and that's, that's
7	steam turbine so if you look at all the other
8	technologies that are out there that are generating
9	electricity including gas turbines and combined
10	cycles and so forth none of those are, are using
11	number six fuel oil. So it's really only with the
12	steam turbines and
13	CHAIRPERSON CONSTANTINIDES: Right
14	ANTHONY FIORE:seems to be a you know
15	maybe a legacy issue of, of that technology.
16	CHAIRPERSON CONSTANTINIDES: I
17	understand. You think it's… there's an economic
18	reason at all, that it's just cheaper to burn six or
19	ANTHONY FIORE: It certainly is cheaper
20	to burn six.
21	CHAIRPERSON CONSTANTINIDES: Yeah, I kind
22	of referred to it as the fast food of, of, of fuel
23	oil, it's, it's the cheapest, it's easiest to get and
24	it's the worst for you but it there, there's
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1	ENVIRONMENTAL PROTECTION COMMITTEE 20
2	probably an economic reason for it, you could make
3	that case right?
4	ANTHONY FIORE: I would, I would think at
5	this time market conditions make number six cheaper
6	to burn than
7	CHAIRPERSON CONSTANTINIDES:right
8	ANTHONY FIORE:other fuels.
9	CHAIRPERSON CONSTANTINIDES: And I'm
10	because I'm, I'm looking forward to 2020 and seeing
11	this phased out I just felt that it was important
12	that we have this conversation and highlight that
13	there's still so much being burned in New York City
14	within these five plants, I see 20 million gallons
15	burned last year was more than I thought when we
16	started down this road that was going to be so I am
17	I'm looking forward to getting to that point that we
18	have passed. What kind of conversations have we had
19	with these… with the industry moving forward? Have
20	they already started the technology change overs, are
21	they in process, what progress could we expect to see
22	in 2017, 2018, 2019?
23	GERALDINE KELPIN: So… excuse me…
24	conversations have been started with these companies,
25	they have brought on consultants to look at this and
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2	to come up with a schedule to do the conversions as
	-
3	Anthony was saying it's not it's certainly not
4	impossible for them to change but the essentially
5	this may not be the best way the most scientific way
6	to put it but the guts of these plants have to be
7	changed out and it has to be balanced so that we
8	always have the reliability from the plants so that
9	balance is being looked at and we expect that
10	transition to be happening by 2020, I don't know
11	really if we will see anything sooner than 2020.
12	CHAIRPERSON CONSTANTINIDES: And that's
13	because of this, this technology it's guts that have
14	to be sort of changed over?
15	GERALDINE KELPIN: Partly that and I
16	think that their going to sort of hang on to the
17	economics as long as they can.
18	CHAIRPERSON CONSTANTINIDES: Yeah, as we
19	talked about it it's the cheapest way to do business
20	GERALDINE KELPIN:yeah
21	CHAIRPERSON CONSTANTINIDES:yeah
22	GERALDINE KELPIN: Yeah.
23	CHAIRPERSON CONSTANTINIDES: I mean it
24	it's… yeah, in, in a community… I represent a
25	community that you know Astoria Long Island city

that has many of these power plants so it's ... you know 2 3 where we've long been frustrated by power plants and 4 we've heard a lot of promises from them that we're 5 going to change over, we're going to re-power you know in the, in the early, early part of this decade 6 7 we heard how we're going to have you know massive repowering projects done in Astoria only to see them go 8 9 by the wayside and you know what would of been a creation of good union jobs for construction purposes 10 11 been great for the city as far as energy efficiency 12 and great for the city for emissions reductions and 13 as you talked about those, those barriers we, we got a whole lot of nothing from them. So, do we see one 14 15 moving forward what regulatory structures do we have to force a re-power. And then secondly do we see any 16 17 push back from them from stopping to use six, do we 18 see from... are, are they looking... are they actually 19 going to comply or are they going to fight back 20 either in court or other, other means with us? 21 GERALDINE KELPIN: At this point they 2.2 appear to be working towards the goals of switching 23 their fuels. CHAIRPERSON CONSTANTINIDES: 24 Okay.

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1	ENVIRONMENTAL PROTECTION COMMITTEE 23
2	GERALDINE KELPIN: And that, that's about
3	the best I can say at this point.
4	CHAIRPERSON CONSTANTINIDES: And do we
5	know if they how, how what, what structure do we
6	what can we do, I so you talked a little bit about
7	removing these barriers and looking at it regulatory
8	Is there something that we can do as a city to force
9	them to re-power or are we… what, what… in our, in
10	our, in our legal structure I know there's a lot of
11	lot of set of fingers in the pies of, of in city
12	power generation how do we… how can we move forward
13	and, and sort of have these conversations?
14	ANTHONY FIORE: So you know, you know I'd
15	just like to separate two issues one is what the fuel
16	is being used to generate electricity and, and then
17	re-powering
18	CHAIRPERSON CONSTANTINIDES:right
19	ANTHONY FIORE:'cause they're, they're
20	a bit different
21	CHAIRPERSON CONSTANTINIDES:right,
22	absolutely.
23	ANTHONY FIORE: And, and the, the air
24	code regulatory changes that were instituted in, in
25	2015 with you know the help of the council to get,

1	ENVIRONMENTAL PROTECTION COMMITTEE 24
2	get that changed really is the, the stick to have the
3	fuel oil changed so I think, I think we've
4	accomplished that component
5	CHAIRPERSON CONSTANTINIDES:right
6	ANTHONY FIORE:of it that The other
7	question is about re-powering still many of these
8	units in the city are old right in there and they're
9	less efficient than, than newer units as you talked
10	about combined cycles versus other, other
11	technologies and so forth and we, we have been
12	working for many years now to… with our state
13	partners and, and federal regulatory agencies to
14	incentivize re-powering right now that regulatory
15	structure disincentives re-powering. We submitted
16	comments to the federal and regulatory commission
17	with proposals to change that so far without success
18	in terms of re-powering although we have had some
19	success in, in having regulatory changes that will
20	make it easier for renewable technology to come into
21	to the market so we… there's a steady progress that
22	we've seen happening but we will continue to work
23	with the New York independent system operator, the

New York state public service commission and others

2 to encourage regulatory changes that will incentivize 3 re-powering.

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4 CHAIRPERSON CONSTANTINIDES: I... I'm 5 wholeheartedly with you and do you think... I mean this 6 is... I've heard stories of, of frac gas being part of 7 the reason that it could of depressed the market and 8 you know as, as EPI will call it the, the frac 9 revolution we'll call it the frac devolution.

ANTHONY FIORE: Yeah, I mean i... I think 10 11 that certainly there's a, there's a concern with the, 12 the reliance on natural gas that, that's happening, 13 right just from a fuel diversity perspective and I think one of the things that the city needs to do 14 15 and, and this administration is ... in working to do 16 and, and happy to work with council in, in doing that 17 is increase transmission in, into the city, right we, 18 we need to increase the transmission capacity into the city so that the city has access to cleaner 19 20 renewable fuels that are, are being located up state 21 will increase reliability and will in essence 2.2 decrease the amount of in city generators that are 23 needed so that's, that's one of the biggest areas where we could work together to push our, our state 24 and, and federal regulatory agencies. 25

2 CHAIRPERSON CONSTANTINIDES: I, I, I 3 agree with you. Many... these plants they, they've... in 4 our community they have technology in many places 5 that's what 30, 40 years old that...

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ANTHONY FIORE: ...and more ...

7 CHAIRPERSON CONSTANTINIDES: ...and more 8 and, and we're... you know we're, we're constantly 9 dealing with seeing the ... those emissions, dealing with the asthma impacts, dealing with the ... all the 10 11 consequences of those plants and we're looking 12 forward to seeing four and six oil phased out and 13 looking forward to holding them to that and I hope 14 they're here today to testify or at least be heard 15 because we, we are looking forward to hearing them 16 say on the record that they're ready to comply and 17 get there to four and six as we ready to see that 20 18 million gallons disappear but it's, it's time for us 19 to come up with new ways to you know move, move past 20 these plants and, and not have that dependence in our communities and I think all of our communities are 21 2.2 looking forward to that so I'm looking forward to our 23 good partnership and so ... looking at ... do we monitor the air pollutants that are coming from these plants 24 25 separately, I know that the state has regulation and

2 do we… you know sort of look at the impacts they have 3 on our local health?

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4 ANTHONY FIORE: So, so we had the New York city community air survey monitoring program 5 where we've measuring pollutants throughout the city 6 7 between 60 to 150 sites and what we ... you know we have data on our portal so the pollutants that are emitted 8 9 by these power plants are the same pollutants that are emitted by trucks, cars, you know buildings and 10 11 so forth. And so you know what, what we're measuring 12 is the overall pollution levels across these 13 communities and you cited our, our online portal that we have all that data at the community level looking 14 15 at the ... both the air quality and the public health 16 impacts of these, of these pollutants. 17 CHAIRPERSON CONSTANTINIDES: So we're, 18 we're constantly keeping an eye on these plants and 19 seeing what, what ... 20 ANTHONY FIORE: ...well we're measuring the over... [cross-talk] 21 2.2 CHAIRPERSON CONSTANTINIDES: …right… 23 [cross-talk] ANTHONY FIORE: ... the ambient air quality ... 24 25 [cross-talk]

1	ENVIRONMENTAL PROTECTION COMMITTEE 28
2	CHAIRPERSON CONSTANTINIDES:right
3	[cross-talk]
4	ANTHONY FIORE:throughout the city,
5	yes.
6	CHAIRPERSON CONSTANTINIDES: Okay. And,
7	and so looking at worse case scenario nationally
8	unfortunately we're, we're, we're stuck with looking
9	in this paradigm will the… if, if for some reason the
10	clean power plant does not go into effect and we, we
11	lose that sort of regulatory structure is our ability
12	to phase out four and six affected any way, is there
13	any way they can challenge it or, or… you know we
14	have it in law here in the city is… can we, can we
15	expect some sort of fight on those grounds at all?
16	ANTHONY FIORE: No, I, I don't expect so
17	in, in the city in terms of the use of number four
18	and number six, it the, the local regulations
19	require it and I would also say that you know New
20	York state is a member of the regional green house
21	gas initiative and the reductions that are occurring
22	under that program exceed at the reductions that were
23	required by the clean power plant and so New York is
24	already a little bit ahead of where the clean power
25	plant needs to go for New York itself, nationally the

2 clean power plant would be of benefit and we
3 understand that you know many of the air quality
4 impacts here in the city are not just from what's
5 generated in the city, they're from...

CHAIRPERSON CONSTANTINIDES: …right… 6 ANTHONY FIORE: ...plants you know in the 7 8 Midwest and the pollutants that are transported and 9 deposited here and so to that extent you know that's troubling for, for us but for what we can do here in 10 11 the city and what the state is doing I, I think are 12 somewhat insulated from what's happening at the national level. 13

14 CHAIRPERSON CONSTANTINIDES: A small 15 silver lining. There's not a whole lot of those going 16 around right now, so we'll take them where we can get 17 them. And then looking at the equipment that's 18 utilized by these plants you know they, they have 19 boilers, turbines do we think that all of these will 20 be captured within our purview here we ... you know we talked about steam generation four and six is there 21 2.2 any other technology they utilize that allow them to 23 still burn four and six that we did not cover through their code? 24

ENVIRONMENTAL PROTECTION COMMITTEE

30

2 ANTHONY FIORE: So no the, the only 3 technology that we see that is using number six fuel 4 oil is... are the steam turbines and, and that's just 5 the, the older technology. The, the gas turbines, the jet engines, the combined cycles none of those are, 6 7 are using number six fuel oil. 8 CHAIRPERSON CONSTANTINIDES: Alright, so 9 that's, that's good to hear. Alright, so let me... at, at this point I'll recognize, he's not a member of 10 11 our committee but he does have two plants in his district that did burn over six, six million gallons 12 13 last year of, of six oil, I know he was very 14 interested in his topic, Council Member Ben Kallos 15 from the upper east side, thank you for being here 16 Council Member. Do you have any questions about it 17 or ... I know you just walked in, do you have a ... need a 18 minute, yeah, okay ... 19 COUNCIL MEMBER KALLOS: ...give me a moment 20 I do have a question. 21 CHAIRPERSON CONSTANTINIDES: Alright. 2.2 Alright, so I, I have ... as far as over the next four 23 years we talked about technology that reliability

24 factor so they need to burn four and six as a back up

25

1	ENVIRONMENTAL PROTECTION COMMITTEE 31
2	to the… to natural gas in many cases and, and they
3	utilize the back up?
4	ANTHONY FIORE: They need to burn fuel
5	oil…
6	CHAIRPERSON CONSTANTINIDES:right
7	ANTHONY FIORE: They're currently burning
8	number six
9	CHAIRPERSON CONSTANTINIDES:right
10	ANTHONY FIORE: I think we suspect that
11	many of them will switch to number four before they
12	go to number two but those are not direct
13	conversations that we've had yet. There, there may be
14	some that go directly to, to number two so from
15	because of reliability rules there needs to they,
16	they need to be dual fuel but there's, there's no
17	reason that they can't run on number two rather than
18	number six with the necessary investments to get
19	there and you know our, our only concern is that we
20	do that in a way that manages the reliability of the
21	system and, and cost impacts to, to the rate payers.
22	CHAIRPERSON CONSTANTINIDES: I asked the
23	question as far as going… is there any way to, to, to
24	kind of shrink the time for number four, I mean as
25	we're, we're shrinking the timeline for number four
1	

ENVIRONMENTAL PROTECTION COMMITTEE 32 1 we know we have 2030, we're hoping to get there 2 3 sooner than that is there a way to require them to go sooner than 2030 to... from number four? 4 ANTHONY FIORE: That would require a 5 legislative change. 6 7 CHAIRPERSON CONSTANTINIDES: Okay. Well I'm definitely open to that. And do any of them have 8 9 coal capacity at all; is anyone using coal in the city of New York any longer? 10 ANTHONY FIORE: No, no... no one's using 11 coal in the city of New York and the state has a plan 12 to phase out the last couple of coal plants in the 13 14 state by 2020. 15 CHAIRPERSON CONSTANTINIDES: Okay, great. And you're... 16 17 COUNCIL MEMBER KALLOS: I'm ready. 18 CHAIRPERSON CONSTANTINIDES: Alright, so 19 at this time I'll turn it over to my colleague Ben Kallos before I come back ... 20 21 COUNCIL MEMBER KALLOS: Thank you very much to our Environmental Protection Chair 2.2 23 Constantinides for being on the vanguard of environmental issues and focusing on every single 24 issue I... I represent the upper east side; east 25

1	ENVIRONMENTAL PROTECTION COMMITTEE 33
2	Harlem, east Midtown and Roosevelt Island and I'm not
3	sure if you know but air quality throughout the
4	entire city of New York has been getting better where
5	has it still stayed poor according to the air quality
6	surveys?
7	ANTHONY FIORE: So as, as you mentioned
8	air quality has improved throughout the city over the
9	past several decades…
10	COUNCIL MEMBER KALLOS: Except where?
11	ANTHONY FIORE: And we well it's
12	improved in all neighborhoods but we can look at the
13	rankings currently at the most recent data we have in
14	2014 and we see the worst air quality fine
15	particulate matter if we're speaking specifically
16	about fine particulate matter and nitrogen dioxide
17	are in areas of Manhattan and the western Bronx.
18	COUNCIL MEMBER KALLOS: And which
19	specific area of Manhattan?
20	ANTHONY FIORE: So I can point you to the
21	rankings of fine particulate matter the top five
22	neighborhoods are Midtown, Stuyvesant town, Chelsea
23	financial district and then Greenwich Village in the
24	upper east side.

2	COUNCIL MEMBER KALLOS: So I, I represent
3	multiple of the locations where you have some of the
4	worst air quality and for… what is one of the reasons
5	that we're seeing such high levels of particulates?
6	ANTHONY FIORE: Right So in those
7	neighborhoods you have a confluence of high building
8	density and high traffic density which are the major
9	contributors to variation of air pollution throughout
10	the city so what happens in, in Manhattan and a lot
11	of the… and in these neighborhoods is basically an
12	overlap of some of the highest building density and
13	traffic density so you have the most fossil fuel
14	combustion in those areas.
15	COUNCIL MEMBER KALLOS: And is there is,
16	is the burning of number one, two, and six diesel oil
17	and liquid waste is are those contributing factors
18	to that?
19	ANTHONY FIORE: So I don't number two
20	fuel and natural gas, sure and number four and six.
21	COUNCIL MEMBER KALLOS: And so within my
22	district according to our committee report and some
23	of the great research done by the Environmental
24	Protection Committee staff at 74th Street in my

ENVIRONMENTAL PROTECTION COMMITTEE 35 1 district 3,846,000 gallons were burned is that, is 2 3 that accurate? 4 ANTHONY FIORE: We, we don't have the quantity of fuel burned, we can, we, we have by 5 megawatt hours generated. 6 7 COUNCIL MEMBER KALLOS: So I quess one question is do you think it would be prudent for the 8 9 city to be tracking that information, it's currently being tracked by other agencies but for the city to 10 11 be tracking how many gallons are being produced, do you ... or do you have a link between the number of 12 13 megawatt hours generated and, and the carbon 14 footprint for that generation? 15 ANTHONY FIORE: Do you have emissions data? 16 17 SUZANNE DEROCHE: Yeah. So we have 18 emission data that we use from the EPA that gives us 19 the emissions data for each plant ... for each 20 generating unit, excuse me. 21 COUNCIL MEMBER KALLOS: And, and could you just share that for the record for folks who are 2.2 23 in the audience, we have a great audience here today, the room's entirely full, I'm sure we have folks 24

1	ENVIRONMENTAL PROTECTION COMMITTEE 36
2	watching the live stream and who are also going to be
3	watching on television later?
4	SUZANNE DEROCHE: Sure, so earlier in the
5	testimony we discussed the plants that were using
6	fuel oil number six that are steam and in for the
7	east river six and east river seven ConEdison
8	facilities we have the CO2 data as well as some
9	other, some other data so for CO2 for those for the
10	first plant, six is
11	COUNCIL MEMBER KALLOS: Where's that
12	located?
13	SUZANNE DEROCHE: East river six, that's
14	in the upper east side.
15	COUNCIL MEMBER KALLOS: Okay, thank you.
16	SUZANNE DEROCHE: So I can give you that
17	number and this is tons, 500 let's see, about
18	520,000 tons.
19	COUNCIL MEMBER KALLOS: And, and that's
20	500,000 520,000 tons of
21	SUZANNE DEROCHE: Excuse me, let me make
22	one correction, these two plants are in the lower
23	east side.
24	COUNCIL MEMBER KALLOS: Okay, do you have
25	the upper east side location as well?
I	

ENVIRONMENTAL PROTECTION COMMITTEE 37 1 2 SUZANNE DEROCHE: So these are ... 3 ANTHONY FIORE: Yeah, 74th Street... 4 SUZANNE DEROCHE: 74th Street, okay, yes. 5 So these ... ANTHONY FIORE: They don't burn six. 6 7 SUZANNE DEROCHE: They don't burn number six and from this EPA data it says that there is zero 8 9 emissions. So the EPA does not have emissions date 10 for those plants. 11 COUNCIL MEMBER KALLOS: And, and what ... 12 SUZANNE DEROCHE: The data that we have 13 from the EPA does not include emissions date from 14 those plants. 15 COUNCIL MEMBER KALLOS: If, if a person 16 from... do you have ... somebody from the audience had a 17 comment if you can make sure to fill out a comment 18 slip or if you want to write your note and hand it to 19 the Sergeant at Arms I'd be interested in, in 20 reviewing it so what kind of fuel is being burned at 74th Street? 21 2.2 SUZANNE DEROCHE: Kerosene. 23 COUNCIL MEMBER KALLOS: And so for the kerosene, kerosene has no emissions? 24 25

2	SUZANNE DEROCHE: So we'll have to get
3	back to you, the data that we have that I have in
4	front of me does not have that information.
5	COUNCIL MEMBER KALLOS: Okay and I, I
6	also represent Roosevelt Island which is right next
7	to a, a, a station that we, we actually referred to
8	as big Alice and when they spin up the turbines at
9	big Alice we can actually hear that for days, we get
10	complaints from the residents and we have to tell
11	them that the high pitched sound that they hear is
12	actually from big Alice they're not crazy or at least
13	that's not a contributing factor or it might be… can
14	you tell us about how much what the carbon impact is
15	of the Ravenswood generating station?
16	SUZANNE DEROCHE: So Ravenswood has a
17	number of different units, it looks like five
18	something around 20 units so I will need to total
19	that up and get back, back to you.
20	COUNCIL MEMBER KALLOS: Can you give us
21	the… which… from the, the highest…
22	ANTHONY FIORE: For use.
23	COUNCIL MEMBER KALLOS: Used unit?
24	SUZANNE DEROCHE: I see, okay. So
25	

1	ENVIRONMENTAL PROTECTION COMMITTEE 39
2	COUNCIL MEMBER KALLOS:give us the
3	highest and the lowest and we'll figure out the
4	SUZANNE DEROCHE:sure
5	COUNCIL MEMBER KALLOS:average.
6	SUZANNE DEROCHE: So we have about
7	600,000 tons of CO2 for number one, about 550,000 for
8	number two, and 95,000.
9	COUNCIL MEMBER KALLOS: For the, for the
10	least?
11	SUZANNE DEROCHE: Yeah no, sorry,
12	950,000 for number three.
13	COUNCIL MEMBER KALLOS: Wow, okay so, so
14	and, and, and the least on that location is how, how
15	much?
16	SUZANNE DEROCHE: The least?
17	COUNCIL MEMBER KALLOS: Yes.
18	SUZANNE DEROCHE: Number two
19	COUNCIL MEMBER KALLOS: Which was how
20	much
21	ANTHONY FIORE: Just, just to clarify
22	the, the numbers that Suzanne gave you were for the
23	three units that burn number six fuel oil.
24	COUNCIL MEMBER KALLOS: Okay, the other
25	ones don't?

1	ENVIRONMENTAL PROTECTION COMMITTEE 40
2	ANTHONY FIORE: The other ones do not.
3	SUZANNE DEROCHE: Correct.
4	COUNCIL MEMBER KALLOS: And are, are we
5	currently working with Ravenswood to, to limit the…
6	for the… figure out ones… what are the carbon
7	emissions?
8	SUZANNE DEROCHE: So
9	COUNCIL MEMBER KALLOS: So the other ones
10	that don't burn number six
11	ANTHONY FIORE: So, so I just want to
12	COUNCIL MEMBER KALLOS: Yeah
13	ANTHONY FIORE:make sure that we
14	understand the, the carbon emissions that were, were
15	read to you are a factor of, of both the fuel that it
16	uses and the run time, right so there's two different
17	factors that contribute to, to those emissions. So
18	you know there, there is another unit that has much
19	less run time and would have fewer emissions.
20	COUNCIL MEMBER KALLOS: Okay, so at, at
21	the varying cites what is the city doing to ensure
22	that locations like Ravenswood and, and on the east
23	side and other places where people live where, where
24	we actually have residential neighborhoods are, are,
25	

2 are zero emissions and are not releasing particulate 3 matter and not causing health impacts?

1

4 ANTHONY FIORE: So you know air code changes were instituted in 2015 that will phase out 5 the use of number six and number four fuel oil in the 6 7 city by 2020 and 2030 respectively so working with 8 the council to get that legislation put in place, we 9 now have the regulatory authority to, to do that. There will continue to be a need for generators in 10 11 the city because we don't have the transmission 12 capacity to serve all of our powering needs. Those 13 generating units will continue to run on fossil fuels 14 whether it's natural gas and or a combination of a 15 fuel oil such as number two after 2030, right there 16 will be number ... no more residual fuel oil left in the 17 city but until we have increase transmission capacity 18 in the city that meets the city's demand we will 19 continue to need to rely on in city generation. 20 COUNCIL MEMBER KALLOS: And, and I... I'm ... I believe to be sustainable we need to do that and I 21 2.2 think... I, I join our Chair in supporting solar

23 wherever we can get it especially on city buildings 24 as well as putting up wind farms wherever we can do 25 so without impact to marine life as well as what we

2	actually have in my district which is the Roosevelt
3	Island title energy project which I believe is now on
4	phase three and hopefully can lead to increased
5	deployment. So specifically with regards to local law
6	38 that which we passed in 2015 where are we in terms
7	of on track to phasing out number six by 2020, are we
8	going to hit that goal, how many, how many locations
9	are still burning and since 2015 how many locations
10	have stopped using number six and how many are left
11	to go and what is our plan?
12	GERALDINE KELPIN: So buildings that had
13	been powered by their heating systems using number
14	six we have 99.8 percent of those buildings off of
15	six.
16	COUNCIL MEMBER KALLOS: And all that
17	happened since 2015 or that happened prior to 2015?
18	GERALDINE KELPIN: During the phase out
19	between 2012 and 2015, that's when those buildings
20	converted. We had a handful maybe 100 of the 5300 we
21	had identified finishing up the conversion by 2015
22	in, into 2016.
23	COUNCIL MEMBER KALLOS: Okay, so how
24	many
25	GERALDINE KELPIN: We are now
	I

1	ENVIRONMENTAL PROTECTION COMMITTEE 43
2	COUNCIL MEMBER KALLOS: Yeah.
3	GERALDINE KELPIN: Now there are as far
4	as I know, I know of two locations that have permits
5	that were… are actually not buildings they are
6	industrial boilers that will phase out by 2020. So
7	the… that's where our 98… 9.8 percent of the
8	buildings stock
9	COUNCIL MEMBER KALLOS: so just those
10	two buildings represent the point two percents or are
11	there
12	GERALDINE KELPIN: Plus… excuse me, I'm
13	sorry, go ahead finish your question.
14	COUNCIL MEMBER KALLOS: That was it I was
15	trying to identify how many buildings we're talking
16	about.
17	GERALDINE KELPIN: So buildings, so
18	that's, that's it for the buildings. The power plants
19	and the steam generating units are sort of our next
20	phase and we expect them to be out by 2020.
21	COUNCIL MEMBER KALLOS: Okay, so of the
22	53 hundred buildings there's two permits that's
23	standing and once those two buildings those two
24	permits are completed then we're at 100 percent of
25	

1	ENVIRONMENTAL PROTECTION COMMITTEE 44
2	buildings so that's commercial and residential, non
3	power plant buildings, non industrial?
4	GERALDINE KELPIN: Correct.
5	COUNCIL MEMBER KALLOS: Okay and the
6	permits are for work that's starting now or starting
7	when will that work for those two buildings be done
8	and where are those buildings?
9	GERALDINE KELPIN: They're actually oil
10	terminals I believe and one is in I know one is in
11	Brooklyn, I'd have to get you the address of the
12	other one, I don't remember off hand, sorry.
13	COUNCIL MEMBER KALLOS: If you could get
14	it to the council that would be great. So and then
15	for the number six burning power plants how, how, how
16	many turbines are we talking about and what is the
17	year by your projection, are we looking at everything
18	happening by 2020 or are we looking at things
19	happening this year, what is the
20	GERALDINE KELPIN: We don't have a
21	breakdown we, we expect it to be all done by 2020,
22	some of it may be sooner but we're, we're relying on
23	it being done by 2020 and our latest calculation is
24	that there are like six units that are still burning
25	six

ENVIRONMENTAL PROTECTION COMMITTEE 45 1 2 ANTHONY FIORE: Seven, seven unit ... 3 GERALDINE KELPIN: ...seven... 4 ANTHONY FIORE: ...seven units ... 5 GERALDINE KELPIN: Sorry ... ANTHONY FIORE: That burn number six, 6 7 five as a primary fuel, two as a, as a secondary fuel. 8 9 COUNCIL MEMBER KALLOS: And where are 10 those seven units? ANTHONY FIORE: There's two in Manhattan, 11 there's two in Staten Island and the rest are in 12 13 Queens. 14 COUNCIL MEMBER KALLOS: Okay and the one ... 15 the two in Manhattan are ... ANTHONY FIORE: Lower east side ... 16 COUNCIL MEMBER KALLOS: So lower east 17 18 side so... and then the five in Queens and so... and 19 you're working with each of the local members as well 20 as the delegations the respective borough presidents 21 on making sure that that happens? 2.2 SUZANNE DEROCHE: Yes. 23 COUNCIL MEMBER KALLOS: That is good and then for, for number four what are we looking at for 24 that 2030 is quite a ways off? 25

2	GERALDINE KELPIN: That's what the
3	legislative date is, we expect transition over than
4	the 2030 2020 to 2030 period just due to if
5	anything any of the equipment fails it can, it can
6	only be replaced with to a natural gas so it'll be
7	sort of a natural transition over those ten years but
8	the end date is 2030.
9	COUNCIL MEMBER KALLOS: Okay, so, so
10	you're not even… so, so versus we pass along 2015
11	with a date by 2020 and what you're telling me is
12	that most of the work had already started in 2012 so…
13	is there… you're saying that there's a phase out from
14	2012 to 2016?
15	GERALDINE KELPIN: Right, so
16	COUNCIL MEMBER KALLOS: So I'm asking
17	about for number four do we have another phase out
18	where perhaps we can start focusing on that versus
19	just waiting for equipment to fail and then replace?
20	GERALDINE KELPIN: The 2030 was
21	legislated in the, in the…
22	ANTHONY FIORE: Yeah
23	GERALDINE KELPIN: 2015, it would take
24	which we already mentioned legislation could be
25	

1	ENVIRONMENTAL PROTECTION COMMITTEE 47
2	opened up to change the date. There was a rational
3	when we did it you know things change certainly.
4	COUNCIL MEMBER KALLOS: Okay, I, I guess
5	could you just share with the committee just the
6	phase out plan and how you hope to hit that goal by
7	2015 and if sorry, 2030 and if there's a opportunity
8	to expedite even though the, the requirement on the
9	law is 2030 we don't necessarily have to wait that
10	long, that's a lot of years of pollution to deal
11	with.
12	GERALDINE KELPIN: So there are a number
13	of efforts going on to encourage buildings that are
14	still on four to change out sooner than 2030. We do
15	see some percentage of buildings changing out each
16	year. I don't we'd have to look I don't have those
17	numbers off hand
18	COUNCIL MEMBER KALLOS: And that being
19	GERALDINE KELPIN:and then
20	COUNCIL MEMBER KALLOS:said by 2020
21	there'll no longer be number six burned in the city,
22	it won't be for sale in the city, it'll just be gone
23	from the city of New York?
24	ANTHONY FIORE: That's our understanding
25	

1	ENVIRONMENTAL PROTECTION COMMITTEE 48
2	GERALDINE KELPIN:that's, that's our
3	understanding, yes.
4	COUNCIL MEMBER KALLOS: And then by 2030
5	same story for number four?
6	GERALDINE KELPIN: Correct.
7	COUNCIL MEMBER KALLOS: Including in
8	power plants, including in manufacturing we won't see
9	it, it won't burn, no carbon emissions from it, we're
10	done with it?
11	GERALDINE KELPIN: That's the way the
12	law's written, yes.
13	COUNCIL MEMBER KALLOS: Great and I guess
14	one question just as we were talking about areas of
15	high concentrations of air pollution I, I, I have the
16	privilege of representing a, a portion of east
17	Harlem, east Harlem has the highest asthma rates,
18	asthma has been linked to high particulates, what is
19	the impact of these power plants on particulates and
20	asthma rates and what, what is the city doing to help
21	these environmental justice communities?
22	ANTHONY FIORE: So the impact I would
23	refer to the, the, the emissions inventory so we
24	know they account for about seven percent of total
25	PM2.5 emissions in the city and so they're a
l	

1	ENVIRONMENTAL PROTECTION COMMITTEE 49
2	contributor to our overall PM2.5 burden and pollution
3	burden which we know effects public health so we know
4	that fine particulate matter contributes to over
5	2,000 deaths in the city and 6500 emergency
6	department visits and hospitalizations and you know
7	and, and when you're speaking specifically about
8	asthma air pollution is one risk factor of asthma,
9	there's many other risk factors of asthma and so the
10	pollutants are a risk factor and the power plants are
11	one contributor to that risk factor.
12	COUNCIL MEMBER KALLOS: And has the city
13	met with power plant owners to discuss their
14	emissions and whether or not the city can assist them
15	in reducing their emissions?
16	GERALDINE KELPIN: I think we're just
17	starting those conversations, a lot of the emission
18	controls for the power plants are set by their title
19	five permit which is a state permit so I don't I
20	would have to say we're only starting our
21	conversations with them now.
22	ANTHONY FIORE: And I will just add that
23	you know the city recently released it's 80 by 50
24	plan and, and during that year or say six months run
25	up to that publication we held a number of stake
	l

holder meetings and focus groups of which all the 2 3 generators in the city were asked to attend and, and 4 many of them did and there was consensus among them about what needs to happen in order for the city to 5 achieve it's 80 by 50 goal so there was no outright 6 7 resistance from those generators to switching to cleaner fuels and I would say you know from a, from a 8 9 broad perspective they even welcomed renewable generation you know there's a transition period that, 10 11 that has to happen but there was ... during that ... those 12 meetings there was not one generator that stood up 13 there and said this is never going to happen with, 14 with our facilities. We understand that as technology 15 is today to bring in large amount of renewable energy 16 we'd still need to be coupled with a much smaller 17 percentage of natural gas, fire generation to balance 18 the intermittency of, of that large scale renewables 19 and that's, that's from the technology that exists 20 today, we would expect to see a switch from a base 21 load of fossil fuel generation to a base load of 2.2 renewable generation that then is supported by the 23 natural gas plants that can ramp up and down quickly to match the changes in load and generation from 24 intermittent renewable resources. 25

2 COUNCIL MEMBER KALLOS: Thank you, this 3 is... I'll conclude my first round of questioning again 4 I want to thank our environmental protection Chair 5 Constantinides, his counsel Samara Swanson and his 6 policy analyst, Bill Murray.

7 CHAIRPERSON CONSTANTINIDES: Thank you 8 Council Member Kallos and just to quickly ... I'll 9 share ... definitely share these documents with you sadly we had to foil them, they weren't giving up by 10 11 courtesy but I have some DEC documents relating to 12 number six oil usage in the past year so for 2015 we have for Ravenswood generating station 3,264,000 13 14 gallons of six oil that were burned; for 74th Street 15 it was 3,846,292 gallons and then Astoria, Astoria 16 generating station was 3,039,000 so we were able to 17 acquire these documents via foil, I'm happy to share 18 them with you 'cause I know maybe EPA ... there seems to 19 be a discrepancy between the EPA documents and DEC so 20 I definitely want to make sure that we're always on 21 the same page with one another so I'm happy to share 2.2 these ... my staff will get them to, to you but I, I 23 think you share our deep concern here relating to burning six oil in our city and making sure that 24 these phase outs happening on time and if we can 25

52

accelerate those phase outs for ... from 2030 through a 2 3 legislative action is ... as you pointed out I think those conversations would be worth wild for us to 4 5 have 'cause I'm looking at ... you know there was two oil burned in, in, in the 74th Street station, they 6 7 burned... they burned a little bit of two oil, I 8 definitely want to see that increased, there was some 9 kerosene that was burned in both Ravenswood and Astoria gen so we will ... there are other ways to sort 10 11 of do that but as you pointed out this is a cheap ... we 12 talked about this before this being the cheapest, the 13 fast food of, of fuel oil, it's cheap, it's easy to get and it's the worst for you so we definitely want 14 15 to see that, that phase out happen on time. Ben if you have any other questions I'm, I'm going to ... 16 17 COUNCIL MEMBER KALLOS: I, I, I guess my, my only question so we have a discrepancy between 18 19 what we're getting from the EPA and what we're 20 getting from DEC and how, how do we ... what is the next

21 proper step, who do we report it to in order for 22 their to be oversight and, and making sure that the 23 EPA's getting good numbers that they're obviously 24 basing their decisions on also making sure that 25 there's a better working relationship between the

1	ENVIRONMENTAL PROTECTION COMMITTEE 53
2	city and the state so that we don't actually have to
3	foil these but this is information that you have?
4	GERALDINE KELPIN: So just to clarify
5	EPA when we were using EPA we were meeting federal
6	government's numbers, these aren't our these aren't
7	city numbers
8	COUNCIL MEMBER KALLOS:right
9	GERALDINE KELPIN:it's
10	COUNCIL MEMBER KALLOS:I mean i
11	GERALDINE KELPIN:the city and
12	COUNCIL MEMBER KALLOS:that was clear,
13	yeah
14	GERALDINE KELPIN:it's state and, and
15	EPA's stuff that are inconsistent at the moment.
16	COUNCIL MEMBER KALLOS: Yeah, they should
17	be talking to each other a little bit better.
18	ANTHONY FIORE: Yeah, I, I, I think you
19	know it, it may just be a very small number of run
20	hours for a certain plant and you know when you look
21	at the that in comparison to a much larger run time
22	for other plants the, the emissions come up you know
23	very, very small and so the data set that we're using
24	doesn't mean that there were no emissions it just may
25	have meant that because it was associated with plants
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that had such a small run time the, the emissions 2 3 were very low but we would be happy to look at the 4 data that you have and appreciate you sharing that 5 with us and we'll work to reconcile both data sets so that, that we have that and I, and I just also want 6 7 to you know act out that we do share your concerns and the administration is pushing hard to have the 8 9 best air quality of any large city in the United States, that goal has not gone away. We are pushing 10 11 on all fronts including getting large scale renewable 12 energy into the city including much greater 13 penetration of distributed generation, a renewable 14 generation in the city, we had it ... a goal of 350 15 megawatts of solar by 2030, we are on track to meet 16 that and we increased that goal to 1,000 megawatts of 17 distributed solar now combined with 100 megawatt 18 hours of energy storage so we share those initiatives 19 with council and we're pushing very hard on all 20 fronts to achieve better air quality. 21 COUNCIL MEMBER KALLOS: What are the ... as, as the solar technology becomes better and cheaper 2.2 23 what are the plans for upgrading that solar technology so that's something that was installed ten 24

or 20 years ago is replaced with newer solar cells so

2 that we are getting the, the most bang for our, our 3 buck and having the highest energy efficiency and 4 light too energy conversion?

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5 ANTHONY FIORE: So you know I, I think there's a combination of things there; one, one is 6 7 just the market dynamics right so if, if those prices 8 fall enough then the sunk investment in, in... you know 9 generally 20 year life expectancy from a, from a solar system may flip and, and may make economic 10 11 sense to change out the system sooner than their life 12 expectancy. What the city is doing specifically is 13 working to reduce the soft cost involved with putting 14 solar generation in, in the city so permitting and 15 streamlining that so it makes it easier and, and, and 16 less expensive to install solar. We're also rolling 17 out programs to combine different groups so that the 18 solar installation cost gain some economies of scale 19 so we ran a pilot in, in Brooklyn this past year 20 where the city helped the community board aggregate customers so that the solar installer had a much 21 2.2 larger pool that they worked with which brings down 23 their cost which translates into reduced cost to those customers. We're going to expand that program 24 25 this year into, to a greater number of participants

2 and a wider diversity of participants. So I think
3 there, there are a number of things that we're doing
4 that will help.

And, and I hate 5 COUNCIL MEMBER KALLOS: to bring up a vendor or any vendor but one vendor in 6 particular seems to be doing exciting things ${\tt I^\prime m}$ 7 8 curious about what interaction we've had with, with 9 solar city, solar one, solar roofs, battery back ups for buildings I, I see what Tesla's doing everyday 10 11 and I, I just ... I chose my path but if I could do 12 something else it would be solar energy and rocket 13 ships.

14 ANTHONY FIORE: Interesting combination. 15 So great question in the city two Friday's ago 16 actually held a solar roundtable at City Hall Samara 17 was, was, was part of that, we had all the solar 18 companies there asking them what it is that we can do 19 better as a city to help facilitate that, we got some 20 great responses that, that dialogue is ongoing and 21 we'll continue to work with the solar industry to do that and I can tell you from the department of city 2.2 23 wide administrative services we have a program that we're starting now that is combining solar with 24

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energy storage on a number of our, our public
 buildings.

4 CHAIRPERSON CONSTANTINIDES: Thank you Council Member Kallos, I want to thank this panel for 5 your testimony and I... as we started I'll, I'll... and 6 we begin this ... our partnership with one another 7 8 becomes infinitely more important in the new climate 9 that we are entering in next year so ... you know reducing ... increasing our use of solar, geothermal, 10 11 hydropower, wind power as a partnership becomes even 12 more important you know making sure that we're 13 phasing out six and four and these power plants 14 become even more important and I, I look forward to 15 working with you to getting these things done to make 16 sure that we protect our city from climate change and 17 continue to be the world's leader and, and ... no matter 18 what happens in Washington we're, we're, we're 19 leading the way in, in the good partnership that we 20 always have. 21 ANTHONY FIORE: We share those 2.2 intentions, thank you.

CHAIRPERSON CONSTANTINIDES: Thank you ... SUZANNE DEROCHE: Thank you.

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2	CHAIRPERSON CONSTANTINIDES: Alright,
3	next panel will be Miss Claudia Coger from the
4	Astoria Resident Association, Michael Seelbach from
5	the American Lung Association, and Claudia Guglielmo,
6	I know with a name Constantinides I should pronounce
7	last names better, Asthma Coalition of Queens. And,
8	and louis Bailey from WEACT as well. Alright, so I
9	guess if Samara you can swear in the witnesses
10	please.
11	SAMARA SWANSON: Can you please raise
12	your right hands, do you swear affirm to tell the
13	truth, the whole truth and nothing but the truth
14	today?
15	CHAIRPERSON CONSTANTINIDES: Alright,
16	thank you. I guess we'll start on this side work our
17	way over.
18	CLAUDIA GUGLIELMO: Good morning, thank
19	you Chairman and members of the Environmental
20	Conservation Committee for holding this important
21	hearing today. My name is Claudia Guglielmo and I am
22	the director of the Asthma Coalition of Queens. The
23	Asthma Coalition of Queens is one of eight regional
24	asthma coalitions across New York State funded by the
25	New York state Department of Health. The Asthma

Coalition of Queens was established in 2012 with a 2 3 contract with the American Lung Association of the 4 northeast. Working in the very diverse county of Oueens our mission is to reduce the burden of asthma 5 by engaging patients, families, health care 6 7 providers, and the community. Asthma is a chronic 8 disease of the lungs that causes airways to tighten 9 and swell, the tightening inflammation and excess mucus during an asthma attack narrows the airways 10 11 significantly which makes breathing extremely 12 difficult. This happens as a result of exposure to asthma triggers. Asthma is a multi-factorial disease 13 14 that develops from various risk factors many of them 15 environmental. Pollution and other particulate matter 16 can trigger an asthma attack and make asthma symptoms 17 worse. Here are four, four important things to note 18 about the impact of asthma on our community; asthma 19 costs New York state about 1.3 billion dollars 20 annually in both direct medical expenses and lost productivity. Over 200,000 children suffer from 21 2.2 asthma city wide. In an average classroom of 30 23 students three will have asthma. The asthma hospitalization and emergency department visit rates 24 for children in New York City is an alarming three 25

2 times higher than the state rate. It's important to 3 understand that we refer to children's rates of 4 asthma because they bear the most burden of the disease. As you have heard this morning in New York 5 City local power plant production is concentrated in 6 7 western Queens with increased power plants comes 8 increased power plant emissions which are a major 9 trigger for people with asthma. In council district 22 and the surrounding areas we have rates of asthma 10 11 hospitalizations and emergency department visits that 12 exceed the Queens county average. This is especially 13 striking for children zero to seven years old 14 emergency department visits in Long Island City, 15 Astoria, east Elmhurst and Jackson Heights. Anything 16 we could do to reduce air pollution from all sources 17 will benefit the health of residents living not only 18 near these sources but will improve the air that all 19 New Yorkers breathe. To be clear improving air 20 quality is not a magic bullet that will cure asthma 21 but asthma trigger reduction will result in 2.2 improvement in health outcomes for people who suffer 23 from asthma on a daily basis in our most disparate communities. Thank you. 24

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2 CHAIRPERSON CONSTANTINIDES: Thank you 3 and I just want to read off the medications that ... on 4 a bad asthma day that many of the students ... when I take my son to the doctor will have to take and 5 these, these, these medications aren't ... this isn't a ... 6 an exhaustive list but they aren't cheap either. So 7 8 every morning to take a pill of Singular, take 7.5 9 milliliters of, of Allertec then when, when asthma is bad have to take Albuterol, Ipratrpium, Prednisone 10 11 which is a steroid, it's not the best thing for young 12 people's lungs then in addition have to take some 13 form of a antibiotic to make sure that there isn't a infection forming so just ... I, I list that as one, 14 15 two, three, four, five, six, seven medications when asthma... when an asthma attack is really bad. So those 16 17 costs to families in western Queens and throughout 18 the city are, are tough ones to bear. So I, I 19 appreciate you being here today to talk about how we 20 have these increase in asthma rates and can make some 21 correlation to, to this power generation. And Mike. 2.2 MICHAEL SEELBACH: Thank you Chairman 23 Constantinides and members of the Environmental Protection Committee. My name's Michael Seelbach and 24 I'm the vice president of public policy and 25

communications for the American Lung Association of 2 3 the northeast. Healthy air is central to our mission 4 which is to save lives by improving lung health and preventing lung disease. We know polluted air can 5 shorten lives, can cause or worsen lung diseases like 6 7 lung cancer, asthma, and COPD. Air pollution can harm 8 anyone even healthy adults but for many pollution can 9 threaten their lives and leave them with long term consequences. Children and teens, older adults, 10 11 people who have chronic lung diseases, diabetes, those with low incomes are all even more vulnerable. 12 13 Children and adolescents are at risk of developing conditions now that could follow them around for the 14 15 rest of their lives. Lives that may be cut short from 16 exposure to harmful air pollutants. We need to take 17 every step we can to provide cleaner, healthier air 18 for all of us. For far too long communities 19 surrounding our power plants have breathed the worst 20 of the air pollution including ozone particle pollution and a cocktail of other toxic emissions. 21 While the clear air act along with strong state and 2.2 23 local regulations have forced power plants across the country to drastically reduce their levels of 24 pollution we know residents are still being exposed 25

to elevated levels. For the health of all New Yorkers 2 3 its imperative the, the city continue it's efforts to 4 expand renewable energy production including wind, 5 solar, tidal, geothermal. The American Lung Association puts out an annual state of the air 6 7 report each year which grades communities across the 8 country for levels of air pollution. We look at ozone 9 and particle pollution both those pollutants are dangerous to public health and can be lethal. Our 10 11 most recent report illustrated once again why further action is needed to clean our air. While the report 12 13 has shown that in New York City and across the 14 country we've seen drastic improvements since the 15 1960's and 70's especially as you've heard today 16 particle pollution it hasn't just improved here in 17 New York City but it really has across the country 18 but the report shows that millions of New Yorkers 19 continue to live in counties that received failing 20 grades for air pollution. Specifically here in New 21 York City, Queens, Staten Island, the Bronx, and 2.2 Manhattan all received failing grades for ozone and 23 those of you from Brooklyn we ... actually there is no air quality monitor in Brooklyn so it's unclear what 24 25 the air quality is but we know that air pollution

doesn't normally stop at, at borough boundaries. The 2 3 New York metro area remains one of the few eastern cities on the most polluted list for ozone. To be 4 5 clear New York's air pollution problems aren't simply a result of locally produced power plant emissions 6 7 but there are also result of vehicle emissions, 8 heating oil combustion even from coal fired powered 9 plants located out in the Midwest. Besides the effects of traditional air pollutants like ozone and 10 11 particle pollution we know that carbon pollution is 12 also a major problem with these and the U.S. surgeon 13 general has recently declared that we know that 14 climate change means higher temperatures overall and 15 it also means longer and hotter heat waves, higher 16 temperatures can mean worse air in cities, more smog 17 and more ozone. We know more intent wild fires will 18 mean an increase smoke in the air and we know that 19 earlier springs and longer summers mean longer 20 allergy seasons. So to protect our communities and 21 the public the U.S. must significantly reduce carbon 2.2 pollution from its largest source which is existing 23 power plants. The Lung Association was proud to support the clean power plan and we're working on 24 25 states across the country to make sure that it was

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implemented. We're glad the city and state of New 2 3 York have taken proactive measures to move forward 4 with the action to address climate change and we call 5 on the city and state to continue, continue these efforts regardless of how the courts and or the Trump 6 7 administration decide to act with regards to the 8 clean power plan and we're glad to hear the De Blasio 9 administration made that declaration today. Over the last several years New York City has taken proactive 10 11 steps to address a major source of both carbon 12 pollution and air pollution, the combustion of dirty heating oil. The elimination of number six oil and 13 14 the phase out of number four, four oil will help 15 reduce a major source of New York City's particle 16 pollution and lead to reductions of SO2 and CO2. However the combustion of number four and six in our 17 18 power plants especially those concentrated in western 19 Queens are a major contributor to air pollution so we 20 support the passage of resolution 320 which calls on 21 New York State to phase out the burning of number four and number six. We know that if New York State 2.2 23 was to pass regulations to do so the only thing preventing these power plants from phasing this out 24 is their economic bottom line, it's about technology. 25

1	ENVIRONMENTAL PROTECTION COMMITTEE 66
2	So we hope that the state will take action or that
3	the city chooses to pass legislation to change that
4	time line. The Lung Association has an old tag line
5	you may remember, if you can't breath nothing else
6	matters, those words hold true today as they have for
7	decades. We call on the council to heed that
8	important mantra and move forward on initiatives that
9	will not only clean up the air we breath but will
10	lead to healthier New Yorkers who will live longer
11	more vibrant lives. Thanks.
12	CHAIRPERSON CONSTANTINIDES: Thank you
13	Mike, I appreciate that and Miss Coger it's always
14	great to see you, I hope you had a wonderful
15	Thanksgiving.
16	CLAUDIA COGER: I greet you all are
17	Councilman Constantinides is my councilman and all of
18	the panel I greet you. I'm the, the Astoria resident

16 CLAUDIA COGER: I greet you all are... 17 Councilman Constantinides is my councilman and all of 18 the panel I greet you. I'm the, the Astoria resident 19 association president from Astoria houses and I live 20 in our Niger development and why I'm here to support 21 the, the phasing out of the number four and number 22 six oil our percentage is because in my household I 23 have a, a granddaughter that's now 35 years old and I

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also have two great grandchildren and all three of

those have asthmatic conditions and they are ... you

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know they walk around with a pump and they have 2 3 different machines and etcetera which is not the best 4 element to be in but in Astoria we have ... and it's already been address here this morning that we have 5 three plants within a seven mile radius on the water 6 7 and we live on a peninsula where we have the cross 8 winds that brings everything right into our faces so 9 our... it's, it's our... important to us and health wise and, and as longevity to have our ... the cleanest our 10 11 emissions coming into our development. Our ... we know that the, the number six oil is the dirtiest 12 13 emission... it puts out the dirtiest emission as 14 possible so our... it creates 26 more times of carbon 15 and four more percent more times of nitrogen and 27 16 percent times more sulfate than burning the number 17 two oil which is significantly cleaner and would 18 reduce carbon, the carbon emission by 93 percent and 19 the nitrogen by 65 percent and the sulfate by 68 20 percent. In switching our, our... living in public 21 housing number six oil is burnt in, in Astoria houses 2.2 and also then we have the Ravenswood houses and we 23 have the Queens houses as which this oil is being burnt in, in the boilers and the, the, the using the 24 number two would drastically reduce the emissions 25

that the boiler releases into the atmosphere. The ... 2 3 this is causing our 16 percent of 10,000 4 absenteeism's in elementary schools in the Long Island city Astoria area. Students miss at least 20 5 days in the school year and this is statistics, they ... 6 7 in the school year from asthmatic conditions as well 8 as these pumps have to be stabilized in the schools 9 at all times and in the after school programs they also have to be there so and it has already been 10 11 noted that it's also an expense to the households 12 most of the time they really cannot afford these co-13 pays conditions that they have to ... are ... be in. The 14 hospitalization percentage rated for the children 15 from five to 14 years old in a Long Island City 16 Astoria area is about half the rates of the rating 17 city wide and the adults percentage is a rating at 18 203 per 100,000, 32 percent which is higher than the 19 overall Queens rate. So overall it seems feasible to 20 get rid of the number four and number six oil and 21 replace it with number two as a life and health 2.2 protection analysis for the longevity of the growing 23 population in northwestern Queens and I thank you. CHAIRPERSON CONSTANTINIDES: 24 Thank you Miss Coger. Thank you for your advocacy whether it's 25

2 transportation and improving our communities, water 3 access or finding out you're always on the front 4 line, so thank you for all your great, great work. 5 Mr. Bailey?

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LOUIS BAILEY: Good morning. 6 Good 7 morning to all the members of the committee on 8 environmental protection and New York City council. 9 My name is Louis Bailey; I'm a community organizer, an outreach coordinator at WEACT for environmental 10 11 justice. I'm here today on behalf of our organization 12 to testify regarding the state's position to 13 transition fuel oil types in power plants based on 14 reduction goals set by the EPA's clean power plan. As 15 noted in resolution 320 the state of New York has an 16 opportunity to phase out number four and six oil in 17 exchange for number two fuel oil. This process has 18 been replicated by a private organization such as 19 ConEdison and has proven itself cost effective. It 20 also presents an opportunity to significantly reduce particulate matter in emission relevant to the clean 21 2.2 power plan. While these are important benefits we 23 believe the most important impact of this transition will be the impact on public health. We support the 24 city of New York in their efforts to phase out 25

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harmful pollution sources that pose a threat to city 2 3 residents and beyond and believe it is a step in the 4 right direction to improving public health. For 28 5 years WEACT has been at the forefront for the fight for healthy communities that are historically 6 7 vulnerable to environmental injustices including 8 exposure to air pollution. Historically northern 9 Manhattan has been over burdened by air pollution due to facilities such as bus depots which they are five 10 11 in northern Manhattan, marine transfer stations and 12 also a sewage treatment plant. On top of this many 13 buildings have burned number six and four oil that 14 have contributed to poor air quality in our 15 community. As a result, asthma and other respiratory 16 illnesses have diminished the health of residents 17 creating a toxic legacy that reduces the livelihood 18 of it's residents. In the past, the few oil 19 transition has been limited by cost and other 20 hurdles. However, this policy represents an 21 opportunity to deliver justice in effective 2.2 communities and protect others from severe pollution 23 exposure. We hope that you will keep our community in mind as you make such impactful decisions that 24 25 support public health.

2 CHAIRPERSON CONSTANTINIDES: Thank you 3 Mr. Bailey and just to sort of expand further on some 4 of the data that we have from the DEC big Alice which I think we should start calling it big Dirty in 5 western Queens over a two year span burned 15 million 6 7 gallons of six oil, three million gallons last year in 2015 and 12 million gallons in 2014. Astoria 8 9 generating burned 12 million gallons over a two year time line so three million gallons last year and 10 11 another nine million the year before in 2014 and then 12 we have the 74th Street generating station, we only have the documents for 2015 that's another three 13 14 million so just from those three plants over a two 15 year span we're talking about 30 million gallons of 16 six oil being burned and as we talked about with the 17 administration that that's highly unacceptable 18 especially when we have pockets of, of public 19 housing, we have ... in our ... my district we have Astoria 20 houses, a great leader, Claudia Coger, here today, we have Ravenswood, we have Queens bridge and all of 21 2.2 these public housing developments are, are located 23 directly next to big Alice ... are nearby to 74th Street and are on the cross wind from Astoria generating and 24 as pointed out from the Asthma Coalition of Queens 25

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there, there's an asthma rate that is higher in 2 3 district 22 and in, in Astoria and Long Island city 4 than in other parts of Queens so we know that there 5 is something going on there and, and it's more than coincidence that they're burning all of this six oil 6 7 and we're seeing asthma rates at a higher so I 8 appreciate all of your advocacy and, and, and, and 9 work in this field and, and pointing this out. We ... the more we have these conversations and I think 10 11 we're, we're moving in the right step... the right 12 direction in phasing out six by 2020 though I'd like 13 to see it quicker, I think we're going to have this 14 legislative conversation about four oil and making 15 that a lot quicker but we need to do more and we have 16 this strong commitment from the administration and, 17 and, and from this ... from our legislative body we, we, 18 we need to be ... we're going to be boulder over the 19 next coming months and, and we're going to need great 20 partners like you to continue that boldness in the 21 face of a presidency that may not be aligned with our 2.2 values in the environment in this particular 23 instance. So with that I'll, I'll say thank you for your testimonies and, and look forward to working 24 25 with you all.

LOUIS BAILEY: Thank you.

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3 CHAIRPERSON CONSTANTINIDES: I just want 4 to go on the record very quickly I find it deeply 5 disappointing that none of the power generating companies are here today to testify or provide any 6 7 testimony whatsoever if they are planning on phasing out in 2020 and complying with New York city law 8 9 would have to have hear that and we would happily have, have heard their testimony and, and looking 10 11 forward to hearing their plans to meeting that goal of 2020 and reduce... and, and phasing out four oil by 12 2030 and hearing why they can ... why they can't do it 13 14 quicker to burn ... to stop burning four and six but 15 unfortunately we don't have any slips from them today 16 so I, I will go on record saying my deep 17 disappointment for that, there, there should have 18 been someone here to testify, they were all invited, 19 they had ample opportunity to tell us of their good 20 works of what they were doing and they told ... chose not to and, and that is of deep disappointment to me 21 and to this committee and this institution so if 2.2 23 they're interested in submitting ... to meeting with me and, and going on the record there will always be an 24 25 opportunity moving forward to do so 'cause we want to

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2	hear how this is going to happen and over the next
3	three years how they plan on, on stopping six oil
4	and, and phasing out four oil and at the bare minimum
5	going to two and, and to natural gas but we need to
6	do much better so with that I'll bring up our next
7	panel, I'll bring of Ling Cho from United for Action
8	and I'll bring up Catherine Skopic our, our people's
9	climate movement, our, our good friends so if can
10	come up forward and be sworn in.
11	Samara Swanson: Please raise your right
12	hand, do you swear, affirm to tell the truth, the
13	whole truth and nothing but the truth today?
14	CHAIRPERSON CONSTANTINIDES: Ling Cho I
15	guess we'll start with you since you, you, you took
16	the
17	LING CHO: I
18	CHAIRPERSON CONSTANTINIDES:the corner
19	chair, there you go…
20	LING CHO: Okay. Alright.
21	CATHERINE SKOPIC: You said her name
22	first so…
23	LING CHO: Good morning Chairman
24	Constantinides. My name is Ling Cho, I'm a co-founder
25	of United for Action, a grass roots group in New York

City working to end our addiction to fossil fuel and 2 3 nuclear power and advocating for renewable energy. We 4 totally agree with the resolution 320 calling on New 5 York state to phase out number four and number six fuel oil in power plants. The burning of number four 6 7 and number six fuel oil in power plants produces high level of emission of particulate matter and nitrogen 8 9 oxides associated with negative health impacts including decrease lung function, aggravated asthma, 10 11 respiratory symptoms, and premature death. Many of 12 these power plants are clustered in environmental 13 justice communities. If we stop burning number four and number six oil this will decrease the levels of 14 15 harmful pollutants emitted into the air and inhaled 16 by many people. However, while burning of number two 17 oil and natural gas in power plants produce lower 18 level of air pollutants we're still burning fossil 19 fuel which will not reduce green house gas emissions 20 that contribute to global warming and climate change. 21 2016 is on track to be the hottest year in our planet's recorded history smashing 2015's record 2.2 23 heat. Natural gas is not a green energy nor is it a transitional fuel and natural gas is methane which is 24 potent green house gas 85 times more potent than 25

carbon dioxide when measured over a 20 year time 2 3 frame. Increased natural gas usage and expansion of 4 natural gas infrastructure will lead to more fracking and green house gas emissions and exacerbate climate 5 change. Now is the time we must invest in energy 6 7 conservation, energy efficiency and renewable energy sources to reduce green house gas emissions and 8 9 combat climate change and not prolong our dependence on fossil fuel. Climate change is the most critical 10 11 issue of our generation. We need to leave those fossil fuels in the ground and urgently switch to 12 13 renewable energy sources before it is too late. Thank you very much. 14 15 CHAIRPERSON CONSTANTINIDES: Thank you ... 16 Thank you. 17 CATHERINE SKOPIC: Good morning. Good 18 morning, my name is Catherin Skopic and I'm a member 19 of the Peoples Climate Movement in New York, Steering Committee, a member of the Sierra Club and am it's 20 21 New York city group representative to the peoples climate movement in New York and am a member of the 2.2 23 board of directors for Interfaith Moral Action on climate. Thank you for introducing this resolution 24 and providing the opportunity to address this phasing 25

out of number four and number six fuel oil for in 2 3 city power plants in the effort to meet carbon 4 dioxide reduction goals as set by the environmental 5 protection agency clean energy plan. Three points I would like to make; both four and six oil have heavy 6 7 concentrations of particulates that contribute to air 8 borne diseases such as asthma and related lung 9 diseases as well as spew massive amounts of carbon dioxide into our atmosphere that prevent us from 10 11 meeting the EPA's goal as well as the commitment we 12 made to the United Nations climate agreement December 13 12th, 2015. Eliminating number four and number six 14 oil is necessary for health of people and planet and 15 you are to be commended for this resolution in that 16 sense. Second point, natural gas or methane is at 17 least 60 times more green house gas producing than is 18 oil therefore replacing number four and number six 19 oil with natural gas although reduces particulates 20 does not reduce our carbon dioxide emissions but 21 increases green house gases getting us further away 2.2 from the EPA agency's clean energy plan. Emphatically 23 we can not forget the disastrous effects of fracking for natural gas. Use of thousands of gallons of water 24 to frac each well at a time when water is becoming 25

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increasingly scarce. Contaminating pristine sources 2 3 of drinking water gas pipe line explosions killing 4 people and poisoning animals, plants, land, water, and air causing earthquakes, just google Oklahoma. 5 Although fracking has been banned in New York state 6 7 gas pipelines crisscross our state carrying gas from 8 Pennsylvania and other states. By replacing oil with 9 gas we further support this destructive industry that is becoming increasingly economically bankrupt. Here 10 11 I would just like to insert something an idea that I 12 have, I don't know if it would be the department... the committee on the environment or committee on 13 14 transportation but I've been thinking about and I'm 15 interested in writing legislation that would limit 16 delivery trucks in New York city to only delivering 17 during the hours of 12 a.m. and six a.m. and this 18 would decrease congestion, decrease the quality of 19 air both indoors and outdoors so I'm very interested 20 in working on this legislation, the hours could be 21 adjusted, okay at worse it would mean companies 2.2 having to put a person on overtime to be there to 23 receive the goods but truck deliveries are one of the main sources of traffic types in New York City, I'm 24 sure you know this so this is a piece of legislation 25

1	ENVIRONMENTAL PROTECTION COMMITTEE 79
2	I'm interested in working on, I don't know if it
3	would be you Costa or the department of
4	transportation but it doesn't specifically relate
5	number four and number six but it does relate to
6	ambient air and the air quality that we're discussing
7	today.
8	CHAIRPERSON CONSTANTINIDES: We'll
9	happily talk with you, we'll figure it out, we're,
10	we're the right place to go.
11	LING CHO: Excellent, great. You've got
12	it.
13	CHAIRPERSON CONSTANTINIDES: Okay.
14	LING CHO: Okay, the third point it takes
15	time to build renewable energy infrastructures but we
16	could do this one power plant at a time starting with
17	big Dirty.
18	CHAIRPERSON CONSTANTINIDES: You like the
19	transition
20	LING CHO:yeah I like that name right.
21	We know that renewable energy systems supply more
22	higher power higher paying and permanent jobs
23	increasing our economic and tax space and they
24	actually get us to the New York City, New York state
25	and United States environmental protection agencies

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2 clean energy plan. I ask, no plead with you to invest 3 our energy dollars in solar, wind, heat pump storage, 4 geothermal, and community based aggregations that function locally and independently making us more 5 resilient in storms and all actually we do think 6 7 carbon dioxide enough to listen to the testimony 8 today, I know that's the direction we're moving and 9 the direction you're taking us in Costa so I really appreciate your efforts and finally I call to your 10 11 attention the fact that mayor De Blasio has pledged 12 to switch out New York city electricity contracts to 13 renewable energy sources when the present contracts are up. This is fine incentive as I know the city 14 15 council and the mayor's office have frequently worked 16 hand in hand in support of one another. This is the 17 time to hop on that renewable energy train or should 18 I say subway. 19 CHAIRPERSON CONSTANTINIDES: I, I

definitely appreciate your, your testimony today and, and your good works in the environmental movement, we need more people that are talking and speaking out on a, on a regular basis and I agree with you API calls fracking the, the energy revolution I, I call it the, the, the fracking devolution...

ENVIRONMENTAL PROTECTION COMMITTEE 81 1 2 LING CHO: ...devolution, right... 3 CHAIRPERSON CONSTANTINIDES: ...yeah we... 4 we... 5 LING CHO: ...I like that ... CHAIRPERSON CONSTANTINIDES: ...we're, 6 7 we're going in the wrong direction there so I ... you 8 know my strong stance against fracking and we did a 9 lot of great work already this year ... 10 LING CHO: ...right... 11 CHAIRPERSON CONSTANTINIDES: ...banning the 12 frackway in New York City, partnering with my, my colleague Steve Levin so we're, we're, we're moving 13 14 in the right direction here in New York state and now 15 more than ever our voices need to be amplified, we 16 need to stand up a little bit taller and speak a 17 little bit louder and make sure that we're continuing 18 to lead the way on environmental issues. 19 LING CHO: Thank you, you can count on me 20 to do just that and continue to work with you. 21 CHAIRPERSON CONSTANTINIDES: Thank you ... 2.2 CATHERINE SKOPIC: I, I, I think you know 23 going forward at least for the next four years that we are really going to have to depend on the city to 24 25 lead the way, the city and state. We're not sure

1	ENVIRONMENTAL PROTECTION COMMITTEE 82
2	anything's going to be done on the federal level or
3	maybe it will bring us back but we cannot stop, we
4	have to move forward so thank you very much.
5	CHAIRPERSON CONSTANTINIDES: Thank you
6	and I'm I, I want to definitely recognize the mayors
7	office who's been a great partner in into doing that
8	and we're going to need that partnership more than
9	ever as we move forward.
10	CATHERIN SKOPIC: Thank you.
11	LING CHO: Thank you.
12	CHAIRPERSON CONSTANTINIDES: Thank you.
13	Alright, so seeing no other witnesses, does anyone
14	else wish to testify today? Alright, so I'm
15	disappointed to not see any other witnesses
16	especially from the power companies but I will
17	always… I will make this pledge if they ever decide
18	they'd like to submit testimony on the record at any
19	hearing I'm having no matter what the subject I will
20	always make time at the end of our hearing for the
21	next year for them to demonstrate to us on the record
22	what their plan is to reduce four and six oil on, on
23	time so whether that's a hearing on sewage or, or a
24	hearing on geothermal no matter what we'll make time
25	at any hearing that they wish to show up at to go on

the record and tell us how they plan on complying 2 3 with phasing out four and six oil and how they plan 4 on making our, our grid even greener in New York City 5 and what they're plans are for repowering so we ensure that our community is ... especially our 6 7 communities in, in, in vulnerable areas are being 8 addressed in the right way so I, I, I, I appreciate 9 that and we, we can do ... we do this in the city council 'cause there's no clapping but I'll end two 10 11 ways one to quote president Obama whose leadership has been so strong on, on climate change we're the 12 first generation to feel the effect of climate change 13 14 and the last generation that'll be able to do 15 anything about it so we know our mission we know what 16 we have to do, I, I appreciate today our, our mayors 17 office and, and good partnership on the environment 18 we'll continue that. We need ... we all need to be 19 bolder, stand up a little bit taller over the next 20 four years and make sure that we continue to lead the 21 way. This was the first time the council's had a 2.2 hearing on in city power generation in my tenure at 23 least in the ten years I've worked here which ten years went really fast as a staff member than as a 24 council member but we definitely will revisit this 25

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2 topic over the next if I have the, the great 3 privilege to continue to serve in this council. So I want to thank our staff, thank our legislative 4 5 attorney, Samara Swanson, our policy analyst Bill Murray who put countless hours in to go into this 6 7 topic and when we foiled all these documents it 8 wasn't what they gave us just the information we 9 asked for, it was like 2,000 pages a piece so we went through a lot of documents and I'm glad for that 10 11 partnership so thank you Samara and Bill and my own 12 staff, Bill Murray, I'll, I'll recognize my colleague 13 from Queens Eric Ulrich who's here. No, not yet. I 14 appreciate that Eric, thank you. I was, I was about 15 to close do you have anything you'd like to add or ... ERIC ULRICH: 16 No. 17 CHAIRPERSON CONSTANTINIDES: Alright, so 18 I'll, I'll thank my staff, Nick Jaworski, John 19 Benjamin who again had to pour through 100's of 20 documents and our ... my, my chief of staff Nick Rose 21 and my communications director Shaw Hersherone, all 2.2 the staff here today and I want to thank our speaker 23 as well who has been a strong environmental leader on, on a global scale so I appreciate her, great work 24 in all the central staff that put time and effort 25

1	ENVIRONMENTAL PROTECTION COMMITTEE 85
2	into making this hearing today, so with that I'll,
3	I'll gavel this committee of the environmental
4	protection closed.
5	[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 December 19, 2016