1 NEW JERSEY CLEAN AIR COUNCIL PUBLIC HEARING PAST, PRESENT, AND FUTURE: 2 AIR QUALITY AROUND OUR PORTS AND AIRPORTS 3 DEPARTMENT OF ENVIRONMENTAL PROTECTION 4 JULY 30, 2020 9:00 AM VIA MICROSOFT TEAMS 5 6 7 BOARD MEMBERS: JOHN VALERI, CHAIR 8 ALLEN WESTON, VICE CHAIR MARIA CONNOLLY, HEARING CHAIR 9 MICHAEL EGENTON, HEARING CO-CHAIR 10 LEONARD BIELORY, MD TOBY HANNA 11 ANDREW MCNALLY 12 JOSEPH CONSTANCE RICHARD E. OPIEKUN, Ph.D. 13 ROBERT CAMPBELL SANDRA HOWLAND 14 SCOTT ROSS JOSEPH CONSTANCE 15 HEIDI JONES, STAFF 16 17 18 19 20 21 22 ROSENBERG & ASSOCIATES, INC. Certified Shorthand Reporters & Videographers 23 23 Vreeland Rd Suite 204 Florham Park, NJ 24 (973) 228-9100 1-800-662-6878 www.rosenbergandassociates.com 25

1 PRESENTERS:

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3	CATHERINE R. McCABE, Commissioner, NJ DEP
4	OLIVIA GLENN, Deputy Commissioner, NJ DEP
5	SHAWN KIERNAN, MDOT Maryland Port Administration
6	RUPERT DENNEY, Baltimore Port Alliance
7	BETHANN ROONEY, Port Authority of NY/NJ
8	ANDREW SAPORITO, South Jersey Port Corporation
9	NICKY SHEATS, ESQ., Ph.D., Center for the Urban
10	Environment, John S. Watson Institute for Public
11	Policy at Thomas Edison State University,
12	New Jersey Environmental Justice Alliance
13	TIM SULLIVAN, NJ Economic Development Authority
14	ALLEN SCHAEFFER, The Diesel Technology Forum
15	JAY RUBLE, Maher Terminals LLC
16	MELISSA MILES, Ironbound Community Corporation
17	RYAN STEGE, Norfolk Southern Corporation
18	AMY GOLDSMITH, Clean Water Action
19	GARY VAN TASSEL, CSX Intermodal Terminals
20	KEN ADLER, Environment Defense Fund
21	PAMELA FRANK, ChargEVC, Gabel Associates
22	CHRISTOPHER M. LUTICK, United Parcel Service
23	GAIL E. TOTH, New Jersey Motor Truck Association
24	
25	

GENERAL PUBLIC COMMENT SPEAKERS: DOUG O'MALLEY, Environment New Jersey/ChargEVC BENJAMIN SARACCO, City of Camden, Shade Tree Advisory, Camden for Clean Air SUSAN HERMAN, Residents for Retail Traffic Solutions, Inc. PAULA ROGOVAN, Coalition to Ban Unfit Oil Trains, Don't Gas the Meadowlands Steering Committee SAMANTHA DiFALCO, Action, Don't Gas The Meadowlands Coalition JOE BALSTRANIAN (Ph.), unaffiliated BERNICE TOMKINS, Jersey Renews 

1	CHAIRMAN VALERI: Good morning, and
2	thank you for attending this year's New Jersey Clean
3	Air Council's Public Hearing. My name is John
4	Valeri. I serve as the Chair of the Clean Air
5	Council. I believe I can safely say that this is
б	the Council's first virtual public hearing.
7	As many of you know, our original
8	hearing was scheduled for early April, but COVID-19
9	forced us to change all that. Since our last live
10	Council meeting, we've been meeting mainly via
11	Microsoft Teams, I'm grateful that both my fellow
12	Council members and DEP staff for allowing us to
13	continue and function seamlessly as a council.
14	Early on when we were hoping the virus
15	would pass and allow us to return in the summer, we
16	decided to continue to have our public hearing,
17	which we believe covers a topic that is vitally
18	important in today's realm of environmental
19	concerns.
20	When it was evident that government
21	closure and social distancing would require us to
22	continue to meet virtually throughout the summer, we
23	as a council agreed, given the importance of this
24	topic, to conduct our public hearing, but to conduct
25	it virtually.

1	Today's hearing is a result of a
2	monumental effort by NJ DEP staff, particularly
3	Frank Steitz, the Director of the Division of Air
4	Quality; Peg Hanna, the Assistant Director of Air
5	Quality, Mobile Sources; and, of course, Heidi
6	Jones, who staffs our council and who, year in and
7	year out, organizes our meetings and public
8	hearings. Council is one of the best in New Jersey,
9	and Heidi's efforts are one of the main reasons for
10	your success. And I'd be remiss knowing other DEP
11	personnel are on the phone. Thank you for making
12	this all happen.
13	I'd like to recognize my fellow
14	Council members who've also worked seamlessly during
15	this pandemic to make this happen. I particularly
16	want to recognize Maria Connolly from the Department
17	of Community Affairs, who's chairing our hearing
18	today, you'll be hearing from her in a moment; Mike
19	Egenton from the New Jersey Chamber of Commerce,
20	who's the vice chair of our hearing; Allen Weston
21	from the New Jersey Association of Counties, the
22	Vice Chair of the Council; and, of course, all of
23	our Council members, thank you for making this
24	happen.
25	Finally, I'd like to recognize all of

1	the speakers who have graciously agreed to
2	participate in this hearing under very unusual
3	circumstances. While we think our topic is of
4	utmost importance, we recognize that during this
5	pandemic you're all volunteering your time to
6	participate while managing your own work and
7	personal lives during a time of social distancing.
8	For all of your efforts to be here today, the
9	Council thanks you, and I personally thank you.
10	On a special note, I want to recognize
11	NJ DEP Commissioner McCabe for attending and
12	providing her opening remarks, and from whom you'll
13	be hearing shortly. We greatly appreciate the
14	Commissioner's support of the Council's efforts.
15	Before I turn this over to Maria, just
16	a little brief history of the Council.
17	The New Jersey Clean Air Council was
18	established by statute under the New Jersey Air
19	Pollution Control Act of 1954. A lot of people
20	don't realize the Act predates the Clean Air Act.
21	This Council serves as an advisory
22	capacity to make recommendations to the Commissioner
23	of DEP regarding matters impacting air quality. It
24	consists of 18 members, 14 of which are appointed by
25	the governor.

Members include representatives of the 1 2 Commissioners of Health, Community Affairs, the New 3 Jersey Commerce Commission, and the Secretary of 4 Agriculture, all who serve ex officio, as well as 5 several business, engineering and medical and health organizations, as well as several public members. 6 Ι 7 am a public member. 8 While the Council generally meets once 9 a month, the Council is required under the Air 10 Pollution Control Act to conduct at least one public 11 hearing a year regarding a particular Air Pollution 12 Control law or topic. Today's hearing fulfills that 13 obligation. 14 For everyone's, you know, benefit 15 we've had recent topics that we've covered, 16 including: Global Warming, Air Pollutants Beyond 17 Carbon Dioxide; Zero Emission Vehicles; and Low-Cost 18 Air Quality Monitors. We, as a council, are especially proud 19 20 of the fact that the recommendations from our 21 hearings have formed the basis of policy and, in some cases, legislation. You should all feel that 22 23 your participation today could lead to very similar 24 policy initiatives. 25 And, with that, I appreciate you all

for coming, and I am going to turn this over to 1 2 Maria Connolly, the Chair of our hearing today. 3 CHAIRWOMAN CONNOLLY: Thanks, John. 4 Good morning, everyone. I would like to thank 5 everyone for virtually attending this year's annual 6 Clean Air Council Public Hearing. 7 My name is Maria Connolly, and I 8 represent the New Jersey Department of Community 9 Affairs on the Clean Air Council. I am chairing 10 this hearing along with my co-chair, Mike Egenton, 11 who will be speaking in a you few minutes. Today's hearing is entitled Past, 12 13 Present and Future: Air Quality Around Our Ports 14 and Airports. 15 I am so glad we're able to have this 16 hearing, even virtually, as it is an important and 17 timely topic, as John said. 18 The new 2019 New Jersey Energy Master Plan outlines a bold vision for decarbonization and 19 20 clean energy, including strategies to use at our 21 ports and airports. Coupled with advances in technology, 22 23 and other recently announced initiatives, now is the 24 time to think about future opportunities, 25 collaboration, innovation, emission reduction and

1 community engagement.

How do we balance the need for expanded movements of goods and people with the need to further reduce local air pollution and related health impacts around the ports and airports? This is the key question we are considering here at this hearing.

8 The Council previously looked at the 9 subject several years ago. As many of you know, we 10 had a hearing in 2008 that examined how emissions 11 from our marine ports and airports impacted both local and regional air quality. Many of the 12 13 recommendations from that hearing were implemented 14 by stakeholders, and we hope that our 2020 Clean Air 15 Council hearing will result in updated plans and 16 approaches to further the gains that we made from 17 our work in 2008.

I'm now going to hand it over to my co-chair, Mike Egenton, to provide you with an overview of some of the questions we're going to be looking at this hearing.

22 CO-CHAIRMAN EGENTON: Thanks, Maria.
23 As laid out in our brochure, there are
24 several questions, although noninclusive, that we
25 want to explore and our presenters will try to

address today. 1 First off: 2 What successful models 3 exist for community engagements related to goods and 4 personal movement related to port and airport 5 operations? Secondly: Are there any additional 6 7 traffic mitigation strategies and container 8 management practices needed to reduce neighborhood 9 traffic congestion? Follow-up with: 10 Have any ports 11 developed plans for and made progress towards a zero-emissions future? 12 13 Have any airlines, rail lines, 14 terminal owners, operators, established 15 sustainability and/or decarbonization goals, and 16 what are they doing to achieve these goals? 17 What additional progress is needed 18 regarding the proposed establishment of nearby port warehouses and distribution centers that can be 19 20 serviced by rail lines, reducing truck traffic to 21 residential neighborhoods? What additional funding sources are 22 23 needed to enhance existing or develop new pollution 24 mitigation strategies to reduce port, airport 25 vehicular emission exposures by local residents?

1	Are air-toxic mitigation strategies
2	and funding issues adequately addressed in the 2019
3	New Jersey Energy Master Plan?
4	We believe we've gathered a terrific
5	collection of business entities and representatives
6	of business organizations, environmental advocates
7	and government representatives to help us here
8	today. DEP will also post a link to their bios in
9	the chat box in this Microsoft Teams session for
10	everyone to see.
11	It is our expectation that the Council
12	will be issuing a report in the next few months that
13	gathers this information and presents it to the DEP
14	Commissioner and provides recommendations as to the
15	next steps.
16	With that as background, let me hand
17	it back over to our Chair of the hearing, Maria
18	Connolly, to provide you all with a brief overview
19	regarding the format of today's hearing. Thank you.
20	CHAIRWOMAN CONNOLLY: Thanks, Mike.
21	It's not easy organizing an all-day,
22	in-person event like this, but I think the Council
23	and the DEP staff would agree that it might be more
24	nerve wracking making sure that it runs smoothly
25	remotely as well.

So I'm just going to go over some 1 2 speaker and audience etiquette for today's remote 3 hearing to make sure this happens. 4 In the interest of time, because we 5 have many speakers today, and we will also have 6 public comment, we're going to be limiting presenter 7 time and then public comment time as well. Let's see. This is a slide of our all 8 9 Clean Air Council members, because normally, when we 10 have an in-person meeting we have place cards in 11 front of us, but we can't have that today. So, and then I think Heidi is going to bring up the 12 13 etiquette slide. Okay, great. 14 So all participants are going to be 15 muted during the presentations, and if you have any technical questions, like you can't see the screen, 16 17 you can't hear or anything, just use the chat function and one of our moderators will help you 18 19 with that. 20 If you signed up to provide oral 21 comment, oral comment is going to be at the end of 22 the presentations. Just try to please unmute 23 yourself and then activate your camera, if you have 24 one, when your name is called. 25 And because it's hard to hold up place

1	cards that say, to give you a three-minute,
2	one-minute warning, I'm going to have to give you
3	like a one-minute warning verbally. So I'll, you
4	know, unmute myself and say that you have a
5	one-minute warning right before your time is up.
6	Please do not use the chat function
7	for your written comments. Your written comments
8	can be submitted until August 14th through the
9	online portal on the Council's website, and the
10	website is listed there.
11	And the next slide is for speaker
12	etiquette for today's remote hearing. All
13	presenters are going to be given, also, a verbal
14	three minute I'm going to give you a three-minute
15	warning and then a one-minute warning. And then,
16	again, you should turn your cameras, also, on when
17	speaking, if you're not using a PowerPoint.
18	And only Council, because of time,
19	again, limited time, only Council members will be
20	permitted to ask questions of the presenters. And,
21	also, the Council members should also turn their
22	cameras on when speaking.
23	So if a Council member has a question
24	at the end of the presentation, just use the little
25	toolbar on the Teams app and raise your hand, it's

1	like a little hand icon there. That way, I'll know
2	that you're going to have a question and I'll call
3	your name, and then you just turn your camera on and
4	unmute yourself.
5	And I also want to say that this
6	hearing is being recorded and we have a court
7	reporter, too. So for everyone, speakers, public
8	comments, Council members, please try to speak as
9	clear as possible and not too fast. I know I have a
10	tendency to talk very fast. So try to speak a
11	little slower so the court reporter can type
12	everything up.
13	And, also, limit the background noise
14	as much as possible when you're on, when you unmute
15	yourself, as hard as that is, nowadays, with dogs
16	barking and kids in the background. But the
17	recording picks up, like, all the background noise,
18	so, if you could just try that as best as possible.
19	So, and, now, without keeping you
20	waiting any longer, I just want to make sure the
21	Commissioner is on.
22	COMMISSIONER McCABE: I am here.
23	CHAIRWOMAN CONNOLLY: There she is.
24	It's my pleasure to introduce DEP
25	Commissioner Catherine McCabe, and she's going to be

introducing the Deputy Commissioner, Olivia Glenn, 1 2 so, I'm not going to steal her thunder there. 3 I think I speak for the whole Council 4 that we are honored to have them give the opening remarks at our annual hearing. 5 6 Thank you, Commissioner. 7 COMMISSIONER McCABE: Thank you, and good morning, everyone. Thank you all for joining 8 9 Welcome to today's virtual session. us. 10 Today, I understand we're focusing on the critical and timely, very timely issue of air 11 12 pollution around the ports and airports. 13 We all know, of course, and have known 14 for a long time that the air quality around our 15 ports and airports is not what it should be, and 16 that this pollution threatens the health of 17 residents of the vulnerable communities that live in 18 these areas. 19 So, although we have made great progress, generally, on cleaning up air pollution in 20 21 New Jersey and improving our air quality, our success is not universal, and it is not evenly 22 23 distributed. There remain hot spots where too much 24 pollution is concentrated in areas with vulnerable residents. 25

The cumulative effect of pollution 1 2 from too many polluting facilities concentrated in 3 these neighborhoods contributes to significantly 4 higher rates of asthma and other respiratory 5 illness. And, lately, we've seen also that the same 6 communities with the higher numbers of residents 7 with these underlying health conditions are also disproportionately impacted by COVID-19, not 8 9 surprisingly, since that does seem to attack the 10 respiratory system. 11 So, of course, it is really important 12 for all of us to pay attention and do our best to 13 address this inequity and to try our best to bring 14 environmental justice to these communities. 15 So I understand, recognize and applaud 16 the Clean Air Council for, first, identifying and 17 tackling this challenge of reducing air pollution 18 from New Jersey's ports and airports more than a decade ago. 19 So, again, applause for you, and thank 20 21 you for that work. The state has been taking a number of 22 23 actions to try to reduce air pollution in the port 24 and airport neighborhoods by curving unnecessary 25 truck idling, better managing traffic flow, and

encouraging fuel switching and equipment retrofits. 1 2 We have a very strong commitment in 3 the Murphy administration to doing an even better 4 job of improving air quality for these communities. 5 It is a very important part of achieving Governor б Murphy's goal of making New Jersey stronger and 7 fairer for all. But, let's be frank, folks, there 8 is no question that we still have a long way to go 9 to achieve that vision. By working together, I am confident 10 that we can make changes and make the progress that 11 is needed to protect these vulnerable communities. 12 So, today, I share the very exciting 13 14 and hopeful news that the state assembly is 15 considering a groundbreaking environmental justice 16 bill, which has already been passed by the New 17 Jersey Senate. This bill would empower and require 18 19 the DEP, for the first time, to consider the 20 potential for disproportionate cumulative health 21 impacts on local communities when new or expanded 22 facilities of a certain type, such as waste 23 incinerators, and waste transfer stations, are 24 proposed in a neighborhood that is already 25 overburdened with too many pollution sources.

The bill would also give members of the community greater notice and opportunities to be heard when these kinds of new facilities or facility expansions are proposed, which is a critical part of affording environmental justice to these communities.

And, most unusually, for a bill that 7 is still in progress in the legislature, the 8 9 governor has already publicly stated his support for 10 It is that important to environmental this bill. 11 justice in New Jersey. And we are hopeful that the legislature will pass this bill today and put it on 12 13 the governor's desk for signature. This would be 14 real progress for environmental justice in the State 15 of New Jersey, and nationally.

So, turning to another aspect of why it is important the work on air pollution from the ports and airports: Emissions of carbon dioxide generated by many operations around the ports and airports are the driver of the climate change, which is probably the largest present and future threat to New Jersey's people and economy.

The changes in our state's climate that have already occurred, and that are likely for our future, were recently laid out comprehensively

1	in the state's first scientific report on climate
2	change, which we posted to our website.
3	So for those of you who have not yet
4	had a chance to look at that, I highly recommend it.
5	There's a good executive summary. It's a rather
б	comprehensive scientific report. You don't need to
7	read all of it; although, it is a good read. But I
8	do highly recommend you all become familiar with the
9	executive summary and delve into whichever of those
10	issues may be particularly of interest or concern to
11	you.
12	The changes that are identified
13	include sea levels that may rise to six feet or more
14	by the end of this century. Rising temperatures
15	that already make us uncomfortable, I don't know
16	which part of New Jersey you're in today, but all of
17	it has been pretty hot lately, and this presents a
18	significant future threat to public health, again,
19	particularly for our most vulnerable populations and
20	communities.
21	The changes that we are already seeing
22	and that we can expect to intensify in our future
23	including increasing frequency of intense rain
24	events and flooding.
25	The scientists have not yet gotten to

the point where they can quantify and measure that 1 2 the same way they can, they have reached very, very 3 well with sea level rise, it's not perfect, 4 projecting the future. But we've got great scientific information and models that help us to do 5 6 The increased rain events are of great that. 7 concern to us, a little harder to put a number on. 8 So it is critical, even during the 9 COVID pandemic, while that is occupying our 10 front-burner attention, that we also continue to pay attention to the need to reduce our greenhouse gas 11 12 emissions. 13 We are only one of many other states, 14 of course, and the U.S. is only one of many 15 countries on the globe that are causing this But we are a powerful little state, and we 16 problem. 17 are a significant contributor to greenhouse gas emissions in this country, and we need to be a 18 significant mover in taking the actions that are 19 urgently called for to prevent climate change from 20 21 going even beyond the projections that we have for 22 it now. 23 The actions that New Jersey is already 24 taking you're probably familiar with, the 25 comprehensive Energy Master Plan, as you know, was

1	released at the end of 2019. That establishes the
2	framework to achieve 100 percent clean energy
3	production and one hundred percent clean
4	transportation by 2050.
5	The Energy Master Plan also would
б	enable us to achieve the mandate of the state's 2007
7	Global Warming Response Act, reducing our greenhouse
8	gas emissions by 80 percent by 2050.
9	Because the transportation sector is
10	the state's predominant source of greenhouse gas
11	emissions, producing 42 percent of the emissions in
12	the last inventory, which was conducted in 2018, the
13	Energy Master Plan calls for significant
14	electrification of New Jersey's transport sector,
15	including, and this is important for the port and
16	airport areas, 50 percent of all heavy-duty
17	vehicles, and 75 percent of all medium-duty vehicles
18	by 2050.
19	As we know, at our ports and airports
20	there are many mobile sources, including the medium-
21	and heavy-duty trucks, and also operations equipment
22	that emit greenhouse gas emissions, providing both
23	our challenge and our opportunity for significant
24	reductions.
25	So if we can make progress in the

ports reducing emissions there, it will be a win, 1 2 win; a win, win for environmental justice, as well, 3 since the measures we need to take to reduce 4 greenhouse gas emissions also will reduce the other 5 air pollutants that present a threat to the health 6 of the communities located around the ports and 7 airports. 8 So, to help achieve our clean air 9 goals, the DEP has been and continues to dedicate 10 funds to help reduce emissions. We disbursed 11 \$24 million from the Volkswagen settlement for electric school buses, transit buses, garbage trucks 12 13 and port and airport equipment, and an additional 14 37 million will be distributed shortly, prioritizing 15 projects in EJ communities. 16 And the Regional Greenhouse Gas 17 Initiative, or RGGI, Strategic Funding Plan focuses 18 \$18 million of proceeds per year over the next three years on achieving medium- and heavy-duty truck 19 20 electrification, with priority given, again, to our 21 overburdened communities. 22 The DEP and its sister agencies, including the DOT, the BPU and the EDA, hope to 23 24 leverage these funding sources and directives 25 towards ports and airports to help decarbonize their

1	primary emissions sources and reduce their overall
2	emissions.
3	The governor and the legislature have
4	made clear that clean air and reduction of GHG
5	emissions is a high priority for New Jersey.
б	The legislature passed and the
7	governor signed the landmark electric vehicle laws
8	setting out ambitious goals for vehicle
9	electrification, including the medium- and
10	heavy-duty vehicles and associated charging
11	infrastructure.
12	And New Jersey, along with 14 other
13	states and the District of Columbia, also recently
14	signed a Memorandum of Understanding committing to
15	work together to accelerate electrification of the
16	medium- and heavy-duty truck structure in our
17	region.
18	So as you can see, we at the state
19	level and the DEP are committed to this course of
20	electrifying transportation and reducing both
21	greenhouse gas emissions and the air pollution that
22	threatens the health of our vulnerable communities.
23	And we thank you all for your clear
24	commitment to that goal and look forward to
25	continuing to work with you to make our vision a

1	reality.
2	And now it is my great, great pleasure
3	to introduce our new Deputy Commissioner, Olivia
4	Glenn. As Deputy Commissioner, Olivia will be
5	responsible for prioritizing advancement of
6	environmental justice and equity goals.
7	Many of you may know Olivia. She has
8	a long history in the State of New Jersey working
9	for, originally, Governor McGreevey, starting back
10	in 2003, and she spent many years, up till 2009,
11	working at DEP as a special assistant to one of the
12	commissioners and one of the deputy commissioners,
13	and she served as the Division of Parks and
14	Forestry's Urban Initiatives and Outreach
15	Coordinator.
16	Most recently, she has been the
17	Director of DEP's Division of Parks and Forestry, a
18	very demanding job during time of COVID, I can
19	assure you.
20	Olivia has been a leader in outreach
21	education and environmental justice. She is a
22	native of Camden, New Jersey and she has been
23	well-known for her activism there during her days,
24	also, working for the New Jersey Conservation
25	Foundation as its regional leader there.

Olivia was honored with the Camden 1 Environmental Hero Award by the Camden Collaborative 2 Initiative in 2018 for her work with New Jersey 3 4 Conservation Foundation to make outdoor spaces and 5 trails more readily available to Camden residents. 6 Olivia holds a Bachelor's Degree in 7 Environmental Studies from Dartmouth College and a 8 Master's Degree from Yale School of the Environment 9 in Environmental Management. Her thesis there was Park Revitalization in Camden. 10 11 So, I could not have found a more 12 perfect person to become our new Deputy Commissioner 13 to lead our environmental justice and environmental 14 education and diversity efforts at the DEP. 15 And Olivia also will be leading our 16 related efforts with the Community Collaborative 17 Initiative which she's focused on, partnering with 12 of our urban communities around New Jersey to 18 improve both environment and economy in our most 19 20 vulnerable communities. 21 So, Olivia, totally my pleasure to introduce you to the Clean Air Council. 22 23 DEPUTY COMMISSIONER GLENN: Good 24 morning. And, Commissioner, thank you so much for 25 that very kind and generous introduction. And thank

1	you to the all members of the Clean Air Council and
2	the public for having me here with you today.
3	If I have not yet had the pleasure to
4	meet you, my name as Olivia Glenn, and I am
5	delighted to serve as the newly appointed Deputy
6	Commissioner, with a focus on environmental justice
7	and equity.
8	I want to echo the Commissioner's
9	remarks to applaud the Clean Air Council for the
10	work that you have done other the past 60 years, and
11	more specifically in the past decade, to help
12	improve New Jersey's air quality.
13	Today's topic addressing air quality
14	around our ports and airports is very timely and
15	relevant. It is also wonderful to have
16	representation from environmental justice advocacy
17	groups and other states showcasing their concerns
18	and highlighting their examples of success.
19	I will listen in iteration throughout
20	the full course of today, and I look forward to
21	working with you all in the coming months ahead.
22	So, in closing, please don't hesitate
23	to reach out to me to discuss how we can work
24	together and advance these important efforts.
25	Thank you so much.

1 CHAIRWOMAN CONNOLLY: Thank you so 2 much, Commissioner McCabe and Deputy Commissioner 3 Glenn. 4 Our next speaker now is Bethann 5 Rooney, Deputy Director of the Port Department for 6 Port Authority of New York and New Jersey. 7 Is Bethann on? 8 COMMISSIONER McCABE: Maria, this is 9 Commissioner McCabe. I had some difficulty 10 accessing through Teams, so it is possible that she 11 is encountering technical difficulties as well. 12 MS. GRZESKOWITZ: Hi. Can somebody 13 hear me? 14 CHAIRWOMAN CONNOLLY: Yes. 15 MS. GRZESKOWITZ: It's Tanja. I work 16 with Beth. I think on your invitation it said 17 initially the meeting would start at 9:30? 18 CHAIRWOMAN CONNOLLY: I think originally it did start at 9:30, then we, because we 19 20 had so many speakers, we moved to it 9:00. 21 MS. GRZESKOWITZ: Ah, so, maybe she's 22 delayed because of that. Let me give her a call. 23 CHAIRWOMAN CONNOLLY: Sure. 24 MS. GRZESKOWITZ: I'll reach out to 25 her.

1 CHAIRWOMAN CONNOLLY: Maybe we should 2 go to the next speaker, and then we'll go back to 3 Bethann. 4 CO-CHAIRMAN EGENTON: Yeah, Madam 5 Chair, I was going to make that recommendation. Ιf 6 Shawn is ready from the Baltimore Port Alliance, 7 maybe can switch. 8 Shawn, are you ready to go? 9 MR. KIERNAN: I am, if that's what you 10 all want to do. 11 CHAIRWOMAN CONNOLLY: Great. We have 12 Shawn Kiernan, Environmental Manager for Maryland 13 DOT Maryland Port Administration, and Rupert Denney, 14 Past President Baltimore Port Alliance. 15 I think you guys are speaking 16 together, is that right. 17 MR. KIERNAN: That's right. 18 MR. DENNEY: That's correct. 19 CHAIRWOMAN CONNOLLY: Okay. Take it 20 away. 21 Good morning, everybody. MR. KIERNAN: 22 I'm sorry, let me get up my presentation. Ι 23 apologize, I should have had that ready to go. Let 24 me know when you can see the presentation. 25 CO-CHAIRMAN EGENTON: I can see it.

1 CHAIRWOMAN CONNOLLY: Yep, it's up 2 now. 3 MR. KIERNAN: Okay, trying to get it, 4 um, all right. Well, good morning, everybody, and 5 thank you for having us here today. I'm Shawn 6 Kiernan. I'm the Environmental Manager with the 7 Maryland Department of Transportation's Port 8 Administration. 9 As we mentioned, I'm here with my 10 colleague, Rupert Denney, from the Baltimore Port 11 Alliance. And today we'd like to tell you a little bit about the work that we've been doing to engage 12 13 with our port communities and other stakeholders 14 around the Port of Baltimore. 15 So before I lead this slide, though, I 16 do want to kind of point out a couple things. 17 Baltimore, if you're not really 18 familiar with it, Baltimore is really a port that So the neighborhoods around the Port 19 grew a city. of Baltimore, many of them are extremely close to 20 21 our marine terminals along our transportation 22 routes. 23 So keeping our stakeholders informed 24 about the port and engaged in our programs is really 25 a crucial piece of our overall work. So let me give

you a little background on who we are. 1 So I work for the Port Administration. 2 3 We are a state agency, and we were established to 4 increase the flow of waterborne commerce through the states for the economic benefit of the citizens. 5 However, we recognize that the storage 6 7 of the environment and the protection of human 8 health are essential elements to us being able to 9 accomplish that mission. So the Port Administration owns six 10 11 public marine terminals, and we lease out space at 12 those terminals for private companies to actually 13 In many ways, we are sort of the move the cargo. 14 public face of the port. However, there are more 15 than 25 private terminals and associated maritime 16 businesses, and together with collectively make up the greater Port of Baltimore. 17 18 So, much of what I focus on are ways 19 to improve air quality around the ports, and a large 20 part of that involves programs that are intended to 21 reduce diesel and greenhouse gas emissions that are 22 associated with port activity. 23 So a major way we do that is through 24 the modernization of cargo handle equipment, or CHE, 25 and then that is used at both the public and the

private marine terminals; and, also, by modernizing 1 2 our drayage truck fleet that services port 3 activities. 4 To help fund this, MPA has been very 5 successful in seeking state and federal competitive 6 grants through programs like DERA, the Diesel 7 Emission Reduction Act. In fact, since 2008, we 8 have been awarded over \$11 million dollars in such 9 awards. 10 But I want to point out something that's been really crucial to your success, and that 11 12 is the support from our stakeholders and the 13 communities that are around Baltimore. These are 14 communities that we have developed strong 15 relationships with over the years. And so it's not 16 uncommon for us when we ask for help to receive as 17 many as 20 letters of support from a wide variety of 18 organizations, including community groups, environmental and public health stakeholders and 19 20 advocates. So when we're submitting grant 21 applications, we have all of the support, and that 22 has been really pivotal to our overall success. So the funds that we've received go 23 24 towards our dray truck replacement program. That 25 helps to provide up to \$30,000 for eligible truck

owners to replace older model vehicles with newer 1 2 and more efficient trucks. 3 To date, we have helped over 217 of 4 these privately owned trucks be replaced with the 5 newer models. And through our cargo-handling equipment upgrade program, we've been able to 6 7 replace or upgrade more than 110 pieces of diesel 8 equipment. And this is done a lot in partnership 9 with our private port companies, as well is our 10 tenants, and that has also included marine and 11 locomotive diesel engine upgrades. 12 So these types of projects, along with 13 things like operational efficiency enhancement at 14 our terminals, have been extremely successful in 15 helping us to reduce air emissions that are emitted 16 per ton of cargo at our MPA terminals. 17 So, in fact, our most recent 18 inventory, our air emissions inventory showed that 19 even while our cargo volumes were increasing, our 20 air emissions were actually down by nearly 20 21 percent. So part of the reason for that 22 23 success, also, is a really unique collaboration 24 between the ports and the Maryland Department of the 25 Environment's Air Management Administration.

1 So, similar to New Jersey DEP, MDE is 2 our state air regulatory agency. And for years, the 3 port and MDE, we both recognized that we're really 4 trying to accomplish the same goal. We're trying to reduce air emissions from the ports and protect 5 6 human health. So at the same time, we were also 7 realizing that there with a considerable discussion 8 9 going on about different ways that the ports could better communicate and better collaborate with 10 nearby communities. 11 12 So MDE and the ports recognize that, 13 by working together and pooling our resources, we'd 14 be in a much stronger position to accomplish these 15 mutual goals. 16 So we entered into a voluntary 17 agreement where parties commit to working 18 cooperatively to identify, to advance, to develop 19 cost-effective programs that are designed to reduce 20 emissions and increase energy efficiency. 21 We have a work group that we 22 established that's made up of representatives from 23 the agencies, and we meet monthly, and we still do. Even five years later, we meet monthly to discuss 24 25 opportunities for air emission projects and

initiatives. But, also, we collaborate to seek 1 2 funding for those projects, as well as to support 3 other air quality improvement programs around 4 Baltimore. 5 So, really, this collaboration I feel б has been extremely successful. I find it to be 7 pretty unique where the agencies are really working 8 together for this mutual goal. But by working 9 together, we're able to get the message out about 10 air quality to more communities, and especially ones 11 that are located around the port. 12 But, also, it always allows us to call 13 on resources from both of the agencies to help 14 answer technical questions from the community. Ιt 15 helps us to share data and information better; and, 16 ultimately, it helps to enable better 17 decision-making. We also support each other at 18 public events. We hold port tours together, and we often collaborate on projects that directly benefit 19 20 port communities. 21 So, all in all, I think that this is a 22 really great example of state agencies working 23 together for a common good. 24 So now I just want to tell you a 25 little bit about the ways that we communicate and

engage with our neighbors and our communities. 1 And 2 with so many neighbors and communities that are 3 located so close to both our marine terminals and 4 also around along our port transportation routes, we 5 really do understand the importance of being a good 6 neighborhood in Baltimore. 7 So we use both formal and informal 8 ways to reach out to our neighbors. But the overall 9 approach that we use is what we refer to as: 10 Inform, engage and invest. Let me explain what that 11 what that means. So, basically, inform means we 12 13 introduce people to the port, who we are, what we 14 do, why we do it, and what it means to the citizens 15 of Maryland. And a big way we do this is through 16 our port tours. 17 We find that bringing people onto the terminals to see how it works, especially when it's 18 with tour guides, like Rupert and myself, we can 19 20 explain to the guests what they're seeing while a 21 vessel is being worked. We find that to be very 22 informative and very engaging. 23 But we also, before we bring people 24 out to the terminals, we often try to set up what we 25 call the Port 101 presentation. Now, this is an

opportunity where members from our team can get out 1 2 to community meetings or public events, and we can 3 give a presentation about the port, about the 4 terminals, and answer any questions and tell you 5 what you would see if you got out there before you 6 were actually there. 7 So, engage, this is the second part. 8 This means building relationships with our 9 neighbors. We support their public events by 10 hosting booths and tables, again, answering 11 questions about the port. 12 We also help host special events, like our open houses at our Environmental Education 13 14 And, actually, I want to point out, the Center. 15 picture at the top is a group of local students who came out to our Environmental Education Center that 16 17 you see in the background to test out underwater 18 robots that they had built. They needed a place to 19 do it, so, it was a great partnership. Again, it 20 built a really great relationship with some local 21 students and community organizations. We also help make it easier for local 22 23 communities to know where they can find jobs with 24 communities that work at the port. 25 So, really, engaging from our

1	perspective, it means getting to know your
2	neighbors, understanding what they need,
3	understanding their concerns and building a
4	relationship so that they have a person at the port
5	that they can call if they have a concern or a
6	question. There really is a face to the name.
7	And, finally, the last piece is
8	investing. Investing means identifying ways that we
9	can support mutual priorities.
10	So, for example, if the port needs to
11	do environmental mitigation for, say, a terminal
12	construction project, if there are mitigation
13	options that would also help our neighbors, we try
14	to identify and advance those types of projects.
15	Now, that means investing our time and
16	our energy into helping communities, also, through
17	things like volunteering or doing neighborhood
18	cleanups. And while it takes time and resources, we
19	have found that the relationships that have been
20	built have really helped the port to continue to
21	grow, while we're going socially responsible.
22	And when we're looking for, again,
23	those communities' and stakeholders' supports for
24	our air quality improvement projects, our neighbors
25	are often our biggest advocates.

Γ

1 So let me stop here. I'd like to turn 2 it over to Rupert, and Rupert is going to talk about 3 sort of another interesting partnership that we have 4 in the Port of Baltimore. 5 MR. DENNEY: Shawn, thank you. Thank 6 you very much. Good morning. My name is Rupert 7 Denney, I'm delighted to be here today. 8 Shawn, if I could ask you to handle 9 the changing of the slides, because that is way 10 beyond my skills. 11 Good morning, once again. The 12 Baltimore Port Alliance, essentially, is a rather 13 unusual forum comprised of representatives from all 14 the maritime businesses, from trucking companies to 15 freight forwarders to stevedores, and also 16 businesses, government agencies, including United 17 States Coast Guard and the Customs and Border 18 Protection. And we meet around about 12 times a 19 20 year to discuss aspects of the port that are of 21 interest to all parties, and essentially look after the interests of the port, both commercially and 22 23 from a legislative or regulatory perspective. 24 Shawn? 25 MR. KIERNAN: Yep.

1	MR. DENNEY: So, we have three
2	standing committees: Environmental, legislative,
3	and the outreach and education. Shawn has already
4	talked a little about the outreach and education.
5	But, basically speaking, I'd just like
6	to emphasize another bullet point, help ensure that
7	communities understand the operations of a port and
8	what is being done to lessen environmental impacts.
9	I think one thing I'd like to stress
10	here, traditionally, the Port of Baltimore and the
11	Maryland Port Administration sort of, fairly, in a
12	laser like fashion on the water side and the
13	dredging issues, and it occurred to us, really, the
14	port is the whole metropolitan area of Baltimore,
15	inside and outside the Beltway, and we had to,
16	essentially, involve a much larger community in what
17	we were doing.
18	Shawn?
19	MR. DENNEY: Shawn has mentioned we do
20	the air and water quality stakeholders tours. This
21	is kind of an interesting group that we put
22	together, and Shawn has alluded to it, where we
23	bring people onto the Seagirt Marine Terminal.
24	There's an office block there with a almost
25	360-degree view of the whole of the operation, and

we do what we call the air tours, or the air and 1 2 water tours there. 3 And I just want to sort of emphasize 4 some of the attendees that come to this. There are 5 community groups, like Turner Station; government 6 groups like MDE, Environmental Defense Fund; 7 Community Group: Baltimore City, and other 8 community association, Greenmount West Community 9 Association, which is an area in Baltimore which has 10 basically suffered a lot through environmental 11 justice issues; and Johns Hopkins Bloomberg School of Public Health. 12 13 And I'd like to emphasize that bottom 14 one, because they've been a tremendous advocate for 15 But the important thing for us is that we're us. 16 concerned that whatever a government agency, and no 17 disrespect to Shawn, whatever a government agency 18 says is or isn't happening may be met with some skepticism. 19 20 And what we found is that the Johns 21 Hopkins is a Baltimore institution and they have a 22 school of public health. So we're engaging with 23 them to monitor air quality throughout the port 24 area. So if an individual has an air quality 25 monitor, and just, um, (VTC disruption).

1 MR. KIERNAN: Rupert, did we lose you? 2 MR. DENNEY: Yes, I think we have; 3 just having trouble. 4 (Simultaneous cross talk.) 5 CHAIRMAN VALERI: We can see and hear 6 you, Rupert, so please continue. 7 MR. DENNEY: Okay, fine. So, 8 basically speaking, we found that having an 9 independent group that's well respected gives us an 10 opportunity to say to the communities, hey, this is 11 the scientific aspect, not the regulatory aspect. 12 Shawn, what slide are we on? 13 So this is 14, sir. MR. KIERNAN: 14 MR. DENNEY: Okay. One of the most 15 successful programs, the BPA Environmental Committee hosts would be the air and water stakeholder tours. 16 17 I've been talking about this. 18 And at these events, we invite 19 speakers from MPA, MDE and other private ports 20 companies, such as Ports America Chesapeake, to talk 21 about what they are doing to improve air and water 22 quality and lessen the impact on neighboring 23 communities. They are half day tours. Also qives 24 the attendees opportunities to see the activities of 25 the port closeup and ask questions from a

1 knowledgeable staff.

2 We found that these tours really help 3 cement our stakeholder understanding of how ports 4 work and why we do what we do. It also helps the 5 port when we ask for community support, because our stakeholders are very aware of the projects that we 6 7 are doing, having seen it firsthand. 8 The attendees have included a wide 9 variety of stakeholders, from local government and 10 community groups, environmental defense funds, and 11 even public health researchers. They have tended our tours as well and they have been beneficial and 12 13 have much well respected and trusted scientific 14 researchers, to know our work as well. 15 Organizations like these can provide 16 an important and independent third party perspective 17 that can help validate our outcomes. 18 Shawn, slide 15, please. 19 MR. KIERNAN: You're good. 20 MR. DENNEY: Okay. Here are some of 21 the examples of the community engagement work that 22 First top left is a port tour with the local we do. stakeholders. We've talked about that. 23 24 The middle is the picture after 25 hosting a volunteer event at the Filbert Street

1	Community Garden, that's in Curtis Bay, helping them
2	prepare their plots for the next gardening season.
3	Next is a community cleanup that we
4	did at the Turner Station neighborhood near the
5	MPA's Dundalk Marine Terminal. And we recently held
6	another community garden by coordinating the
7	donation of one of the BPA's members of a huge
8	shipping container to safely store their gardening
9	equipment. And we hosted a large hiring expo last
10	year to help connect members of the community with
11	job opportunities of the port.
12	These are just some of the examples of
13	how the BPA and the entire Port of Baltimore invest
14	in the communities.
15	Shawn?
16	MR. KIERNAN: Thank you, Rupert.
17	So, really, just in closing, I think
18	that the message that we have is that, in Baltimore,
19	maintaining a strong relationship with your
20	neighbors is really vital to the overall success of
21	our port, but that support from our neighbors also
22	helps us to do even more good work and create a
23	partnership such as we have with MDE or Baltimore
24	Port Alliance, really helps get the message out
25	broader and farther and creates opportunities for

1 greater coalitions. 2 And then the last thing is, really, 3 our method of inform, engage, invest. It really has 4 been very effective for us to strengthen existing 5 relationships and to grow new ones. And that's 6 really what we're all about. 7 So, with that, I'll stop sharing, and want to thank you again for the opportunity to come 8 9 and meet with you today. 10 CHAIRWOMAN CONNOLLY: Thank you so Do any of the Council members have any 11 much. 12 questions? 13 DR. BIELORY: Can you hear me Yes. 14 all right? 15 CHAIRWOMAN CONNOLLY: Yes. 16 I'm Dr. Bielory. DR. BIELORY: I'm 17 one of the Council members. I have a question. 18 You gave me the positive. I wanted to 19 hear, what were the negatives from the community, 20 you know, what issues did they raise on the negative 21 side? Well, we always talk 22 MR. KIERNAN: about things like truck traffic and things like 23 24 that. And so we are always looking for 25 opportunities to -- a big way, what we try to

1 improve air quality associated with trucks is to 2 improve the truck fleet, and that's part of what the 3 dray truck program really is designed to do, is to 4 get the older trucks out of circulation there and 5 improve the air quality by having the newer trucks, 6 so, things like that.

7 Rupert mentioned that we have a lot of 8 outreach that we often do in terms of the dredge 9 material management side. So that's another thing 10 that we are always engaged in, is making sure that 11 people understand kind of the connection, the full 12 cycle to keep a port running. It's not just the 13 terminal itself, it's not just the channel, it's not 14 just the transportation route. It's the whole 15 thing. And being able to explain how each of those 16 pieces kind of come together, we have found, is a 17 very good way for people to understand how what 18 they're seeing interacts with the rest of the overall picture. 19 20 (Simultaneous cross talk.) 21 MR. DENNEY: May I just make a comment on that as well? 22 23 MR. KIERNAN: Mm-hmm. 24 MR. DENNEY: Interestingly, one of the 25 pushbacks we got was with the advent of the ultra

1	large container vessels coming in, not the same size
2	as you see in New Jersey at Port Newark, but there
3	was an interesting pushback, very gentle, from an
4	activist in Eastern Baltimore County, where he said,
5	Well, you know, it's great to see these bigger ships
6	coming in, but bigger ships mean more containers and
7	more than containers mean more trucks. So, what's
8	the trade-off between jobs and air pollution? And
9	it was kind of an interesting conversation.
10	DR. BIELORY: No, just, thank you very
11	much, because I always look for the, you know,
12	anticipation of negative issues, because that's
13	what's everybody comes to the meeting for, not the
14	positive.
15	MR. DENNEY: Oh, absolutely.
16	MR. KIERNAN: I think on that, though,
17	one of the things that we've learned is that having
18	the constant dialogue, building that relationship
19	and then continuing to nurture it and to develop it
20	and explain, as things, like Rupert said, as you see
21	start to see things evolve in the port, and see
22	larger vessels and there's a potential for more
23	trucks, having that conversation before it happens
24	has been really helpful to also have people be aware
25	of what's coming, and then also having us thinking

about what we can do about it, what we can do to 1 2 offset some of those potential future impacts. 3 Waiting until the last minute is always a bit of 4 challenge. Thank you very much. 5 DR. BIELORY: MR. KIERNAN: 6 Yep. 7 MR. DENNEY: Do I have 30 more seconds on that issue? The interesting thing for us is that 8 9 the community around the port has changed in certain 10 areas through gentrification, and the new community 11 that has moved into the traditional port areas in 12 Locust Point in Baltimore, which means nothing to you, but possibly like Brooklyn in your part of the 13 14 world, they are okay with the port, but they're 15 rather ambivalent about what the port means in terms 16 of truck traffic, et cetera. 17 So we have to be slightly -- there are 18 two audiences that we have, those that have traditionally been involved with the port, and those 19 20 that are moving in and don't really know too much 21 about what the port represents, and the message has to be slightly different. 22 23 DR. BIELORY: Thank you, because I 24 actually have a personal friend who I was one of his 25 best men at his wedding move into the Baltimore

1 I also went to the University of Maryland. Port. (VTC disruption.) So I know the port quite well. 2 MR. DENNEY: 3 Oh, good. (Audio 4 disruption.) 5 CHAIRMAN VALERI: This is John Valeri. 6 I just have a real quick question. 7 You've outlined some very significant 8 and important process that you engage in. Sort of 9 following up on Len's question a slightly different 10 way. 11 Were there certain process mistakes or 12 changes you needed to make after you started that 13 you would advise other ports to maybe not make, if 14 they engage in this process? 15 MR. KIERNAN: Well, I can tell you not 16 so much where we are today. 17 CHAIRMAN VALERI: Right. But a lot of the Port's 18 MR. KIERNAN: 19 overall outreach and engagement efforts came out of 20 us maybe making some mistakes in the past, 21 especially on the dredging side where we would 22 basically say, we're going to do this, you know, the 23 state's coming in, we're going to make this happen, 24 without necessarily engaging the community. And the 25 best time to meet your neighbors is before you have

to go to court. You don't want that. And we've 1 2 learned from that. 3 Some of our engagement has been going 4 on for 30 years, because of mistakes that we have 5 made in the past. So we're, basically, primed not 6 to let that happen again, and being part of that is 7 the importance that we place on making sure that our 8 communities are engaged, are informed and are part 9 of our conversation and our decisions. So, yes, 10 we've learned from the past. 11 CHAIRMAN VALERI: Sounds like dredging 12 drew up a lot of --13 Absolutely, MR. KIERNAN: Yes. 14 correct. 15 CHAIRMAN VALERI: Okay. Thank you. 16 CHAIRWOMAN CONNOLLY: Great, thank you 17 so much. 18 Thank you for having us MR. KIERNAN: 19 again. 20 MR. DENNEY: Yeah, thanks a lot. 21 CHAIRWOMAN CONNOLLY: Okay. I see 22 Bethann is on now, correct? 23 MS. ROONEY: Bethann is on. CHAIRWOMAN CONNOLLY: Great. 24 25 MS. ROONEY: Can you hear me?

1	CHAIRWOMAN CONNOLLY: Yes. Bethann
2	Rooney, Deputy Director from Port Department, Port
3	Authority of New York and New Jersey. Thank you.
4	MS. ROONEY: All right. I apologize
5	for that mixup before. My computer absolutely froze
6	as I was beginning to share my slide. So special
7	thanks to my friends and colleagues in Baltimore for
8	the save there. Still looks to be having difficulty
9	sharing the slides, but I can get going, and we can
10	catch up on that.
11	So, thank you for the opportunity
12	to present today and to talk about the Port
13	Authority of New York and New Jersey's commitment,
14	particularly the Port's commitment, to clean air.
15	I think, as many people know, the Port
16	Authority is far more than just the Port of New York
17	and New Jersey, but rather are operating the
18	airports, tunnels and bridges, the rail system, the
19	World Trade Center complex and more.
20	Let me start by saying that the Port
21	Authority has a long-standing commitment to
22	environmental sustainability, and reducing emissions
23	of greenhouse gases in New York and New Jersey
24	region. We embrace sustainability as one of the
25	agency's six core priorities.

Most recently, we became the first 1 2 public transportation agency to embrace greenhouse gas emission targets of the Paris Climate Accord in 3 4 2018, and we committed at that time to a midterm 5 goal of reducing our contributions to greenhouse gas by 35 percent by 2025, and we still remain committed 6 7 to an 80 percent reduction in overall greenhouse gas 8 emissions by 2050. 9 Going back 27 years to 1993, we issued 10 an environmental policy statement that was later 11 expanded to include sustainability and the reduction 12 of greenhouse gases in the New York, New Jersey 13 region. 14 Since 2019, the Port Department, in 15 particular, has had a voluntary clean air strategy 16 which set emission-reduction goals of three percent 17 annual average decrease of criteria air pollutants, 18 and a five percent annual average decrease in 19 greenhouse gas emissions. 20 It is critically important to the Port 21 Authority that we protect the health and safety of 22 the residents in the communities we operate in, as well as the thousands of people who work at our 23 24 facilities each and every day. Everyone is 25 breathing the same air.

1 That is why we've taken steps to move 2 towards a greener, cleaner fleet of vehicles within 3 the Port Authority. And, then, through a series of 4 incentives, inducements, grants and low interest 5 loans, we have been working with our partners to 6 upgrade their older equipment, make efficiency and productivity improvements, burn ultra-low sulfur 7 8 fuel, reduce speed within the harbor, and more. 9 The Port Authority, I think as 10 everybody knows, is not a regulatory agency. So our 11 private sector tenants and partners have made these changes and significant commitments and investments 12 13 on a purely voluntarily basis. 14 Sustainability is a key objective that 15 has been embraced by our port partners throughout 16 the supply chain, from ocean carriers and terminal 17 operators, labor, trucking, rail, warehousing, 18 distribution and shippers alike. Since 2009, the seaport has been 19 20 awarded 34 million in federal funding, and provided another 48 million of our own funds in support of 21 air quality improvement efforts associated with port 22 23 operations. We recognize that we have more to do, 24 but our efforts are paying off. 25 I apologize that I still can't get the

slides shared, but we'll certainly share those with 1 2 everybody afterwards. 3 Actually, maybe I can. 4 Data shows us that air quality has 5 improved around the port. The EPA's Outdoor Air 6 Quality reports show that in the past ten years, the 7 number of days each year that are, quote, unquote, 8 "unhealthy" for sensitive groups has significantly 9 decreased. 10 We study and keep annual air emission inventories of the various mobile sources of 11 port-related emissions, included ocean-going 12 13 vessels, harbor crafts, trucks, cargo-handling 14 equipment, and rail locomotives. 15 These annual reports, which are 16 prepared for the Port Authority by an outside 17 organization, in accordance with US EPA guidelines, show an overall reduction in port-related emissions 18 since we launched our clean air strategy in 2019. 19 20 When compared to our 2006 baseline 21 inventory, the Port's contribution to particulate matter, emissions, which has a significant impact on 22 health, has been reduced by 74 percent. 23 24 Smog-producing oxides of Noxygen have 25 been decreased by 38 percent, all while our cargo

volume has increased 41 percent. 1 2 I would also note that SOx, sulfur 3 dioxide, has nearly been eliminated at 98 percent. 4 Greenhouse gas has not decreased as much as we would like, but that continues to be a 5 6 focus of the Port Authority moving forward. 7 All in, the efforts that the Port 8 Authority and our partners have made have had the 9 benefit of the equivalent of removing 373,000 cars 10 off of the roads, annually. 11 We all want to move towards zero 12 emissions to protect the health and safety of all 13 residents in New Jersey, but doing so on a 14 completely voluntary basis is not going to 15 materially move the needle. We are encouraged, we were encouraged, 16 17 when Governor Murphy said that he was committed to making New Jersey the California of the East Coast. 18 19 The State of California and the ports in California, 20 especially, didn't improve air quality on a 21 voluntary basis, but rather through a set of very aggressive statewide regulations. 22 23 Our port facilities in Newark, 24 Elizabeth, Bayonne and Jersey City are located 25 within the EPA's New York, Newark, Northern New

Jersey, Long Island nonattainment area for ozone. 1 2 The area is in maintenance for fine particulate 3 matter. 4 If you focus on the counties where our 5 port facilities are located, Essex, Union and 6 Hudson, the Port's contribution by pollutant is relatively modest, but most significant with regards 7 8 to nitrogen oxide and fine particulate matter. 9 If you could see the slides that I'm 10 unable to show, in Essex County, the nitrogen oxide 11 contribution from the Port is just 9.5 percent of the overall oxides of nitrogen in Essex County. 12 13 That means that 90.5 percent is associated with 14 other sources. 15 Similarly, if we were to look at the 16 Port's contribution to fine particulate matter in 17 Union County, which is 5.1 percent, that means that the remaining 94.9 percent of PM2.5 in Union County 18 19 comes from nonport operation. 20 I am not in any way suggesting that 21 the Port Authority is not continuing to be committed 22 to the emissions that are associated with the port. 23 But when you consider in just these two examples 24 that anywhere between 90 and 95 percent of the 25 emissions are not associated with the port, it's

1	important that we, together, throughout the State of
2	New Jersey focus on all sources of emissions and not
3	just those associated with the Port Authority's port
4	facilities.
5	I would add here as well that the Port
6	of New York and New Jersey has over 180 maritime
7	facilities, and of those 180 maritime facilities,
8	only 14 of those are the Port of New York and New
9	Jersey's, the Port Authority of New York and New
10	Jersey's.
11	So when we talk about the Port
12	Authority of New York and New Jersey, and we're the
13	Port of New Jersey, and the effect that we want to
14	have on emissions and clean air, it is important
15	that we focus on the entire port, if we truly want
16	to make a difference.
17	MR. EGENTON: Bethann, sorry to
18	interrupt you, but it looks like your slides are
19	coming up on the screen. Are you on slide No. 4?
20	MS. ROONEY: Does that mean you can
21	see them?
22	CHAIRMAN VALERI: We can. Heidi, if
23	whoever has control of the PowerPoint, if you could
24	start the presentation from slide 4, we can follow
25	along.

She has control of her own 1 MS. JONES: 2 slides. I do not have them, so, she would start. 3 MS. ROONEY: Yes. Can you see these 4 now? 5 MR. EGENTON: We can, Bethann, looks 6 qood. 7 MS. ROONEY: Oh, fabulous. Modern 8 technology. 9 So these numbers, as I was referring 10 to, 9.5 percent here in Essex County and 5.1 percent 11 for Union County of fine particulate matter, these 12 numbers, the differences, those 90 to 95 percent, 13 are staggering and of great concern when we consider 14 the health of the residents and workers in our 15 region. 16 The Port Authority remains steadfast 17 in our focus moving forward to even further reduce 18 our contribution and its impacts on the local 19 communities. But we can't do it alone, and we can't 20 do make a difference if efforts remain voluntarily 21 and only focus on the Port Authority's port 22 facilities. 23 So we are actually encouraged to hear 24 that there are more thoughts about making there be 25 more widespread requirements to contribute to

1	emissions reduction and improved air quality.
2	Let me turn now to discuss specific
3	actions we have taken and the path forward with
4	three of the five mobile sources of emissions in the
5	port, in particular: Heavy-duty diesel trucks,
б	cargo-handling equipment, and oceangoing vessels.
7	From our very first emissions
8	inventory back in 2009, heavy-duty diesel vehicles
9	were identified as the largest source of
10	port-related emissions. To help us reach our annual
11	emission goals, we have implemented a series of
12	programs and mandates related to port trucking.
13	The port trucking community and terminal operators
14	have both been significant partners in these
15	efforts.
16	Through a series of changes in our
17	tariff over the last decade, we have incrementally
18	phased out or banned trucks with the oldest engine
19	model years from doing business in the port. It
20	began with trucks older than 1993, moved to trucks
21	older than the 1995, and then to trucks older than
22	1997.
23	I should note that the ban on 1997 and
24	older, which affects 194 frequent callers, or a
25	total of 400 trucks that are registered to do

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business in the port, was to have gone into effect 1 2 this Saturday, August 1st. 3 However, in light of truck dealerships 4 and the Motor Vehicle Commission being closed for several months due to the COVID-19 crisis, we are 5 6 delaying enforcement of that ban until January of 7 2021. 8 Before we put the bans in place, 39 9 percent of all trucks serving the port had an engine 10 model year of 1997 or older. Today, it is just over 11 two percent, and will be down to zero in January. Only four percent of the trucks were 2007 or newer, 12 13 which was the latest EPA standard at the time. 14 Today, two-thirds, 66 percent of the 15 trucks serving the port, have a 2007 or newer 16 54 percent of the trucks needing the most engine. 17 recent EPA engine standard, which is the 2010 model, and 50 percent of the trips, are made by the 18 19 cleanest diesel trucks on the market today. 20 In addition to the bans, again, through our tariff, we have required that any new 21 22 truck operator seeking to do business in the port 23 meet a minimum engine standard as a way of limiting 24 the introduction of older or dirtier trucks from 25 doing business in the Port.

Since last July 2019, any new truck 1 2 looking to work in the Port must have a 2010 or 3 newer engine. 4 In order to help truckers meet these 5 more engine-stringent requirements to work in the 6 Port, we also implemented a Truck Replacement 7 We provide grants of \$25,000 each to Program. 8 truckers to scrap their older trucks and buy a new 9 one with a cleaner engine, now, a 2010 or newer. 10 I know to the layman that this sounds 11 crazy that a ten-year-old truck is considered clean, 12 but they are, in fact, the cleanest diesel trucks 13 available. 14 A trucker will tell you, and I know 15 that we're going to hear from truckers later today, 16 that these trucks can easily run 20 to 25 years or 17 longer if they're properly maintained and it is not 18 unusual to get 700 or 800,000 miles on these trucks 19 or more. 20 We require the trucker to scrap or drill a hole in the engine block of the truck in 21 22 order to obtain the grant. Since we started this 23 program in 2009, we have helped replace almost 850 24 older trucks. 25 Regrettably, there's nearly 14 million

in federal grants that have been identified for the 1 2 Truck Replacement Program that are held up in 3 Washington, D.C. awaiting a waiver of the Buy 4 American requirements. 5 These funds could support the 6 introduction of another 550 new and cleaner trucks 7 within the Port. However, when we started, there were over 6,000 1997 or older trucks serving the 8 9 When you consider that we helped to replace Port. 850 of them, the question remains: 10 Where are the other 5100 older, dirtier, more-polluting trucks? 11 12 Many of them are still operating in 13 the State of New Jersey, just not doing the port 14 work, because these trucks, in fact, are perfectly 15 legal to operate in the state, passing the annual 16 emissions test that is required and legal to operate 17 throughout the country. They're driving up and down 18 the New Jersey Turnpike adjacent to our communities. They may be making the secondary move to nearby 19 20 warehouses and distribution centers. 21 So, again, you know, I go back to the 22 concern that the trucks are passing state emissions 23 requirements, and, while we're phasing them out of 24 the Port, many truckers are deciding to leave the 25 port business and do other business with their

1	trucks in the State of New Jersey, and there is no
2	incentive for them to replace those, and there are
3	no bans in place for those trucks.
4	According to our 2018 data from the
5	Federal Highway Administration, there are nearly
6	37,000 heavy-duty truck tractors registered in the
7	State of New Jersey. Approximately 6,000, just 16
8	percent of them, have any affiliation with the port
9	whatsoever. That means that 84 percent of the
10	trucks crisscrossing the state and driving in and
11	out or our communities every day are not being
12	phased out or incentivized to upgrade by anyone when
13	it comes to reducing port-related emissions from
14	heavy-duty trucks.
15	It is not just about removing them,
16	replacing them and restricting them, but there are a
17	number of other measures that have been put in place
18	in the Port of New York and New Jersey.
19	CHAIRWOMAN CONNOLLY: Hi, Bethann,
20	this is Maria. I just wanted to give you a
21	three-minute warning. Thank you.
22	MS. ROONEY: Okay. No problem.
23	In addition to the Truck Replacement
24	Program, our enforcement of the three-minute-idling
25	rule is in place. We're communicating locations and

encouraging adherence to truck routes. 1 The container terminals have all 2 3 replaced or upgraded their gate systems to improve 4 efficiency at the terminals. Appointment systems have been launched in two of the terminals, one at 5 6 Global Container Terminal in Bayonne, dating back as 7 far as 2017. 8 Our trucking association, the Bi-State 9 Motor Carriers, which a large percentage of our port 10 truckers are a part of, have implemented a 11 StreetTurn system, wherein truckers can exchange available and needed equipment like chassis and 12 13 empty containers with each other rather, than 14 deadheading an empty move back to the port. 15 One way that we are moving away from 16 relying on trucks is increasing the modal split and 17 focusing on those containers that can move either by rail or by barge closer to their destination, which 18 19 is a more efficient and environmentally friendly 20 mode. 21 If I move quickly to cargo-handling equipment, you can see here that there are many 22 23 different types of cargo-handling equipment, which 24 is the off-road specialized equipment that is used 25 in the port cargo-handling equipment, is our third

1 largest source of greenhouse gas in the port, and it 2 represents just nine percent of greenhouse gas 3 emissions and five percent of all port-related 4 criteria air pollutants. 5 There are over 1100 pieces of б They're all using ultra-low equipment in the port. 7 sulfur diesel fuel today, and 54 percent of the 8 equipment meets or exceeds Tier 4 standards. 9 Nine percent of the equipment is 10 electric today. Most especially, that will come 11 from our ship-to-shore cranes, which are used to 12 load and unload cargo from the vessels themselves. We have a fleet modernization program 13 14 that provides incentives of \$20,000 to replace the 15 older equipment. But the challenge with upgrading 16 this equipment you can see here, as I cycle through, 17 there are over a dozen pieces of specialized 18 equipment that is used in ports. And the availability of clean diesel or near-zero emission 19 20 or zero emission just has not materialized yet, with 21 the exception of yard tractors. 22 So we are looking at how can we move 23 forward with electrifying yard tractors sooner 24 rather than later, and we're encouraged that through the VW funds some of our tenants have received 25

1	funding for yard tractors that will be electric,
2	and, again, that equipment is available.
3	We in the Port Authority of New York
4	and New Jersey don't have enough critical mass of
5	this type of specialized equipment to be the ones to
6	encourage on our own the original equipment
7	manufacturers to upgrade this equipment, and make
8	available on a global basis this equipment in a zero
9	emission or near-zero-emission basis.
10	So, because of that, we partner with
11	ports around the country. We are partnering with
12	ports across the globe to develop a critical mass of
13	need to hopefully incentivize the original equipment
14	manufacturers of this equipment to begin to develop
15	the zero emission and near-zero emission.
16	And, then, let me just finally go to
17	oceangoing vessels, which is our second largest
18	source of diesel emissions. We provide, again,
19	incentives to ocean carriers to reduce speed when
20	they're entering the harbor at our Brooklyn Cruise
21	Terminal.
22	We have provided for shore powering,
23	but the cost of shore powering is very, very
24	expensive. And not to say that we're putting
25	operational costs above human health, but it is

something that we do need to consider in the overall 1 2 risk benefit that you can get from shore-powering 3 equipment. 4 And then I would add that the IMO, the 5 International Maritime Organization, is working to 6 make the entire industry from the shipping side of 7 the equation greener and cleaner, and that will come 8 over time. 9 But when you look at the Port of New York and New Jersey, there's over 6,000 deep-draft 10 11 vessel arrivals every year, and just 2500 of them are associated with the Port Authority's facilities. 12 13 So, again, I think it's important that 14 when we look at the impact of vessels and 15 international deep-draft vessels on the air 16 emissions in the State of New Jersey, we just can't 17 look at the Port Authority's 14 marine facilities, 18 but rather the hundred-plus marine facilities in the State of New Jersey. 19 20 So I'll end by saying that we are committed, we are continuing to move forward in a 21 very methodical scientifically based way of reducing 22 23 emissions from the greatest sources, and doing so in 24 accordance with the state of technology, what is 25 operationally feasible and practical, and, quite

1	frankly, what we have the funding in order to do,
2	particularly when in other ports and other parts of
3	the State of New Jersey these types of equipment and
4	vessels and trucks are legal to operate.
5	So with that, I look forward to the
б	conversations for the rest of the day.
7	CHAIRWOMAN CONNOLLY: Thank you,
8	Bethann. I think, because we have to stick to our
9	schedule, we will have to go to the next speaker,
10	which is Andrew Saporito, the Executive Director and
11	CEO of South Jersey Port Corporation.
12	Are you here, Andrew?
13	MR. SAPORITO: Yes, I'm here.
14	CHAIRWOMAN CONNOLLY: Great.
15	MR. SAPORITO: Thank you.
16	I take it you'll operate the slides
17	this morning. Very good, thank you.
18	And, again, thank you for inviting me.
19	I'm actually still relatively new to the South
20	Jersey Port Corporation. I've been here for a
21	little over a year and a week. So, you know, a lot
22	of what I'm going to speak about are initiatives
23	that the corporation started or initiated way before
24	I got here, and then we'll delve into some of the
25	things we've been doing over the last 12 months and

1	what we'd like to do in the future, because I
2	believe there are a lot of opportunities.
3	Just by way of introduction, the South
4	Jersey Port Corporation and the new executive team,
5	because I have been growing the team down here, are
6	expanding upon the ports past efforts to be good
7	neighbors and environmental stewards by deploying
8	emission-reducing technology, innovation and best
9	practices to operate more environmentally friendly
10	and efficiently while continuing to build and
11	operate the port infrastructure to support the
12	development of offshore wind energy and support New
13	Jersey's desire to transition to a hundred percent
14	clean energy by 2050.
15	Our ongoing partnership with New
16	Jersey DEP and DOT have yielded great strides to
17	reduce emissions at our marine terminals, and we
18	look forward to continued partnership.
19	While I am new to the South Jersey
20	Port Corporation, I'm not new to ports. I worked at
21	the Port Authority of New York and New Jersey for
22	almost 38 years. And as Beth pointed out
23	previously, the Port has done a lot in reducing
24	emissions and partnering with their tenants and
25	customers to join in and assist as well.

1	Learning about the history of Camden's
2	air pollution motivated me to continue the progress
3	of my predecessors and to capitalize on the green
4	port programs that were previously initiated.
5	We know that a quarter of the
б	emissions that the port generates stem from
7	cargo-handling equipment. That is why, during my
8	first year, we spent between one-and-a-half and two
9	million dollars on new equipment that reduces
10	pollution. This includes repleneshing our fleet
11	with fuel-efficient Tier 4 cargo equipment, and
12	vehicles that reduce pollutants.
13	Just Tuesday, I had my board authorize
14	the purchase of a newer 2014 water truck that we use
15	for dust control in our terminals to eliminate two
16	1980-era trucks that barely operate at this point
17	and really needed to be replaced.
18	You know, to me it is critical that
19	not only do we replace the equipment and upgrade it
20	and make sure it's Tier 4, but also that, you know,
21	we make our terminals environmentally friendly.
22	Onto the mission slide, please.
23	Our mission is to attract cargo and
24	maritime-related activity to foster economic
25	development and create jobs. We also want to strive

to be environmental stewards while creating those 1 2 jobs. 3 South Jersey Port Corporation is a 4 pivotal job creator in the tristate area, but we 5 must be good neighbors to our fellow residents. 6 Next slide, please. 7 A little bit about our history. Here 8 are some key dates in the evolution of the South 9 Jersey Port Corporation, which began in 1926 with 10 the creation of the South Jersey Port Commission. 11 That then changed to become the South Jersey Port Corporation in 1968. 12 13 I joined just as the port was wrapping 14 up its 50th year as the South Jersey Port 15 Corporation. And, you know, one of the things that I'm focused here on with the team and the board of 16 17 directors and our customers is, you know, how do we 18 make a statement for our next 50 years, and what new 19 initiatives can we bring in place? 20 Today, 50 years after its birth, the 21 South Jersey Port Corporation is a key part of the 22 tristate Delaware River marine complex. Our port 23 district covers seven South Jersey counties. That 24 includes: Camden, Gloucester, Salem, Burlington, 25 Mercer, Cumberland and Cape May.

1	A little bit about your facilities,
2	that would be the next slide.
3	We have four marine terminals, which
4	include the Balzano Terminal, which was originally
5	named the Beckett Street Terminal, which opened in
6	1931, and it sits on 32 acres.
7	The Broadway Terminal is the former
8	home of the New York Shipbuilding yard, and became
9	part of the port in 1971. And this, historically,
10	is where many of the ships in World War II were
11	built, and it was a need to continue the jobs in the
12	Camden area once the shipyard closed down, and the
13	Port Corporation took over and developed that and is
14	still a functioning marine terminal today.
15	And we also operate the Port of Salem,
16	which became part of the port in 1994. It's one of
17	the oldest ports of entry, dating back to 1682.
18	Today, it mainly moves sand and gravel in our
19	facility. And there's a small adjacent service that
20	transports containers to Bermuda on a weekly basis,
21	adjacent to our facility.
22	And, then, Paulsboro, which we'll talk
23	about later, but it opened in 2017 as a multiuse
24	port, and it's something that we're still in the
25	process of constructing and developing, but we think

1	will play a great role in wind energy. Next slide,
2	please.
3	As far as economic benefits when you
4	think about the Delaware River, when you think about
5	the tristate area.
6	So, with the other ports, we all
7	generate about \$77.8 billion worth of economic
8	activity and support about 191,000 jobs.
9	In Camden, our 40 port-related
10	businesses, along with the Port Corporation are
11	among the city's largest taxpayers and employers,
12	and generate approximately 3400 jobs. That
13	translates down to about \$500 million in payroll and
14	business income, and \$46 million in local, state and
15	federal taxes.
16	The Paulsboro Marine Terminal, which I
17	mentioned, is still under construction, and
18	generates, you know, hundreds of thousands of
19	man-hours for the local building trades. And the
20	next phase will be completed at the end of next
21	year, so it's still a lot of the time for jobs, and
22	there'll be more work to have to be done out there.
23	Right now, in the operating portion of
24	the terminal, there are a hundred full-time jobs,
25	and, you know, the hope is that once fully developed

and operational there'll be over 850 jobs at 1 2 Paulsboro. 3 Okay. You know, we handle bulk, 4 break bulk and project cargo, and I believe that is the next slide that we have, and this is one of the 5 б things that we really are experts at. 7 And when you look at Ports Newark and 8 Elizabeth, they're the container capital of the 9 world, but down in South Jersey, that is what we 10 So, basically, if you can't put it in a handle. 11 cargo container, it comes break bulk, or a bulk to 12 port. Next slide, please. Okay, so this type of cargo requires 13 14 skilled labor to protect from damage, plywood; wood 15 products; steel slabs; steel coils used for 16 manufacturing cars and consumer goods. In all these 17 different types of products, you need that human touch, and that's what the labor force down in South 18 19 Jersey is trained to do. 20 In the midst of the pandemic, you know, our foremost focus has been on the health and 21 22 focus of our employees. Because we've been 23 operating, you know, ever since most businesses have 24 closed down. So our terminals are still populated 25 with our tenants.

1	And, you know, additionally, we're
2	concerned about the health and safety of the
3	residents of our host communities. You know, as the
4	pandemic, began we instituted a whole list of health
5	and safety guidelines to keep our employees, our
6	visitors and our customers safe during the pandemic,
7	and we continue the do that. Next slide, please.
8	A little background on Camden. In
9	2005, the Jersey DEP completed analysis of air
10	quality in the Camden waterfront and released a
11	study which was a wake-up call for the port and the
12	community. It estimated there were 70,000 trucks
13	using local roads to access the port.
14	Prior to, you know, me arriving to the
15	port, the port initiated several key initiatives,
16	which I'll try and give you a little outline in.
17	In 2006, using a grant from the Clean
18	Air Communities, a nonprofit subsidiary that focuses
19	on pollution reduction, the port upgraded two cranes
20	at the Balzano Terminal to begin the transition from
21	diesel to electric. They also retrofitted and
22	repowered some of the older forklifts on that
23	terminal.
24	In 2008, the Port received federal and
25	state grants to install filters to scrub emissions

from cargo and moving equipment. 1 In 2009, the Port became more 2 3 community focused, as well, planting trees near the 4 Broadway Terminal. And they still exist today. And in 2010, the Port received a \$1.1 5 б million dollar grant from the UPA to reduce engine 7 emissions by replacing old inefficient diesel emissions with cleaner ones. 8 9 To be better neighbors, the Port also 10 instituted an anti-truck-idling campaign around the Camden marine terminals to reduce the emissions from 11 12 private trucks serving our port. 13 And, over the years, the Port has 14 partnered with the Heart of Camden, a local 15 community group to build a green buffer which helps 16 filter out pollutants while dispatching fresh 17 oxygen. One of the things that I'm trying to 18 do in my tenure down here is encourage more 19 20 community engagement, because I think it's important 21 that, you know, the community and the port and the businesses all work together. 22 In 2007, you know, the whole concept 23 24 of the Paulsboro Marine Terminal was put into place, 25 and we really believe this is something that's going

1	to really support the offshore wind projects. If
2	you'd go onto the next slide, please.
3	In 2020, the Port received a
4	Congestion Mitigation and Air Quality Improvement
5	grant for our fleet modernization program, a program
6	to modernize the vehicles we use to support
7	sustainability.
8	Some of our old forklift that were
9	built in 1965 and just were not environmentally
10	friendly. The new forklifts will yield lifetime
11	emission benefits of 96 percent reduction in
12	permethrin emissions, 95 percent reduction in
13	nitrous oxide emissions, 95 percent reduction in
14	hydrocarbon emissions, and 97 percent reduction in
15	carbon monoxide emissions.
16	Those new pieces of equipment were
17	delivered back in January and February and you can
18	see the picture of the equipment, on the upper.
19	And, also, while the red piece of equipment you see
20	there is a Railswitcher that we use on terminal, and
21	we actually purchased that ourselves as a Tier 4
22	engine, to replace an older model that we have.
23	You know, one of the other things that
24	we're doing is, we're partnering with Camden County
25	to develop a plan to redirect traffic around the

1	port and keep it away from the community. This will
2	lead to less idling, more efficient fuel consumption
3	and a reduction in air pollution.
4	We're also in the process of upgrading
5	the lighting in all of our buildings. We probably
6	have over a million square feet of building space.
7	So right now we're doing a \$500,000 LED bulb and
8	fixture replacement program. That will save about
9	213,000 kilowatts in electrical demand, and save at
10	least 443 kilowatt hours in annual energy
11	consumption.
12	When the process is complete, it will
13	lead to a total reduction of 600,000 kilowatt hours
14	and electricity consumption, helping to reduce the
15	demand on the electrical grid. That relates to
16	about enough energy savings to offset the usage of
17	73 homes, and the equivalent of 275 tons of carbon
18	dioxide.
19	In 2020, we were also awarded a six
20	million dollar grant to upgrade and improve our rail
21	track within our terminals. One of the things that
22	we've been promoting with our customers is the use
23	of rail versus trucks to move larger cargo, and even
24	cargo that, you know, will fit on conventional
25	railcars through the port. And these programs help

1 us attract that business.

2	And the other thing that we've been
3	doing is replacing yard vehicles with more
4	fuel-efficient models, and that's a program that I
5	started when I got here. Future slide, please.
6	As I mentioned, you know, we are
7	looking to upgrade our fleet and make it as
8	environmentally friendly as we possibly can.
9	So, to date, we've upgraded half of
10	our cargo-handling equipment to either 2009
11	standards or Tier 4 engines. 25 percent are Tier 4
12	engines. 25 percent are 2009 or better. And, last
13	week, we submitted a grant to secure \$5.5 million,
14	hopefully, in the VW funds to electrify another 25
15	percent of our fleet.
16	And, then, one of the things that
17	we're trying to do is take the Broadway Terminal,
18	which I spoke about earlier, and kind of make that
19	our test bed for the use of electric equipment.
20	And, you know, all that equipment would be used in
21	Broadway and tested and then used in our other
22	terminals.
23	Our grant application to allow us
24	electrify our fleet has received the support from
25	the City of Camden and the legislators from the

third and fifth legislative districts. 1 2 The grant is critical, because 3 securing it would mean that 75 percent of our fleet 4 is up to 2009 standards, or better, and will help the state reach one of its goals for ports in the 5 6 Energy Master Plan with the electrification of 7 diesel power transportation and equipment at ports. 8 One of the things in the future we'd 9 like to do is, two of our cranes still aren't fully 10 electric, and we'd like to either upgrade them or 11 swap them out with new electric cranes. But that's something we'll look out in the future. 12 One of the other initiatives that 13 14 we've started by hiring a consultant is to put solar 15 panels on our buildings. Because, I mentioned, we 16 have over a million square feet of building space, 17 and this would generate about ten million kilowatt 18 hours of electricity. 19 And, lastly, you know, we're looking 20 to support the Offshore Wind Initiative, and we 21 believe that the Paulsboro Marine Terminal can help support that initiative. And, just a little, if you 22 go to the next slide, about the Paulsboro Marine 23 24 Terminal. 25 The first phase of it was completed in

1	2017 The second where is exhaduled for the end of
1	2017. The second phase is scheduled for the end of
2	2021, which kind of winds up with the goal of
3	starting construction of the products they need for
4	offshore wind to be put out there in 2023-2024 time
5	frame.
6	When phase two is completed, we'll
7	have spent approximately \$400 million on the
8	project. And, as I said, there'll be more to be
9	done there, but this is enough to get the terminal
10	fully operational.
11	Everything at the terminal is built to
12	handle heavy loads. It has dockside-rail access,
13	which, again, bringing material in by rail reduces
14	overall emissions. Paulsboro has direct access to
15	highways, which allows for efficient movement of the
16	goods without going through local streets.
17	CHAIRWOMAN CONNOLLY: Drew, the
18	three-minute warning.
19	MR. SAPORITO: Okay, very good. I'll
20	wrap it up with that. I'll be willing to take
21	questions at this point. But we are dedicated to
22	working with everybody, and, you know, we look
23	forward to being able to speak in the future.
24	CHAIRWOMAN CONNOLLY: Great. Thank
25	you so much. Do we have any questions from the

1 Council? No questions? Okay. 2 Let's go onto our next speaker, Nicky He is Director for the Center for the Urban 3 Sheats. 4 Environment, John s. Watson Institute for Public 5 Policy at Thomas Edison State University, and a 6 member of the New Jersey Environmental Justice 7 Alliance. 8 Nicky, are you here? 9 DR. SHEATS: I am. Can you hear me? 10 I cannot, with my technical situation here, I can't 11 see anybody, but I can see the slides. So, 12 actually, I didn't know if you could hear me. I was 13 actually listening in on my phone now. 14 So, I do have slides. Heidi, do you 15 have my slides? 16 CHAIRWOMAN CONNOLLY: She might be 17 trying to put them up right now. There we go. 18 DR. SHEATS: Yeah, could you go to the 19 one that says -- okay. I quess if you put it on 20 slideshow and go to the one that says "Game Plan." 21 There we go. Okay. So good morning, everybody, thanks for 22 23 giving me the invitation to come back to the Clean 24 Air Council. I want to say good morning to all my 25 former colleagues on the Clean Air Council. I wish

1	
1	I could see you, or, better yet I wish we could be
2	together at the hearing, but that will probably take
3	a while. But I'm glad to be back today, at least
4	virtually.
5	And you see my Game Plan here. There
6	are cumulative impacts, you see I want to talk about
7	cumulative impacts on the ports. And I came up with
8	the idea because there is a cumulative impacts bill
9	that's going to be voted on today.
10	To my former colleague, Mike Egenton,
11	I know we've kind of been crossing swords on the
12	bill, but, Mike, no matter what happens today, let's
13	talk. Let's talk about cumulative impacts and the
14	bill.
15	So, today I want to talk about
16	cumulative impacts, and I'm going to give you
17	several contexts for cumulative impacts.
18	We'll start off by a contexts of how
19	cumulative impacts fits in current events, and then
20	we'll go to cumulative impacts, EJ and the ports,
21	and then I'll add an extra layer on and do climate
22	change. And, finally, I'll end up, the last five
23	minutes, I should talk about 17, 18 minutes, the
24	last five minutes will be about, I'll go back to the
25	ports and talk about some policy suggestions, or at

1	least the type of policy suggestion.
2	So next slide, Heidi?
3	Let's start out with a definition of
4	cumulative impacts. Here's a formal definition, and
5	it's risk and impacts caused by multiple pollutants
6	usually emitted by multiple sources of pollution in
7	a neighborhood, and the risks and impacts caused by
8	each of the individual pollutants, or the pollutants
9	in isolation and the risks and impacts caused by the
10	interaction with each other and with social
11	vulnerabilities. Next slide, please? Next slide?
12	Next slide, Heidi? I think you
13	yes. No, let's go with this one. No, you were
14	right, show the graph.
15	So here's a graph, two figures,
16	actually, that I've actually shown to the Clean Air
17	Council two times before, I think. I showed these
18	figures so much over the country, so much that my EJ
19	colleagues tease me about it, but I'm just happy to
20	show it again.
21	So what the graphs show is
22	relationship between cumulative impacts, race and
23	income. And the graphs were produced by New Jersey
24	Department of Environment Protections, not by us
25	crazy EJ folks, I always say. And they were

produced in 2009, so you might think they're somewhat dated. But unfortunately, nothing has been done, no policy has been instituted by state that would change this yet. So I think they still show or give evidence of what's happening in New Jersey now.

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7 Look at the top graph, and, in this context you can think of cumulative impacts as the 8 9 very roughest of the total amount of pollution in 10 New Jersey neighborhoods. And the top figure shows 11 that, as the number of people of color in New Jersey 12 increases, so does the estimate of the total amount of pollution in these neighborhoods. And the bottom 13 14 graph shows something similar for people living in 15 poverty in New Jersey. There's a number of people 16 living in poverty in New Jersey, neighborhoods 17 increases, so does the estimated amount of pollution 18 in those neighborhoods.

19 So this is, obviously, showing a very 20 troubling what I call sometimes unholy relationship 21 between pollution, race and income. What it's 22 providing evidence of is that if you live in New 23 Jersey, the amount of pollution in your neighborhood 24 is connected to race and income. Again, that is the 25 color of your skin and the amount of money in your

1	pocket. And that goes against everything that, at
2	least, we claim we stand for in this state and in
3	the country.
4	Now, one thing I'll point out is that
5	this is not just in New Jersey. In fact, the
6	environmental justice movement began, one of the
7	reasons it began was because there were several
8	national reports released in the late 1980s that
9	showed similar relationships on a national level.
10	But, from an EJ point of view,
11	environmental justice point of view, what this means
12	is we need to develop and implement policies that
13	are going to address the disproportionate amount of
14	pollution you see in environmental justice
15	neighborhoods to the right of your screen. By
16	environmental justice neighborhoods, I mean
17	communities of color and low-income communities.
18	Next slide, please. Next slide. Next slide.
19	So let me put cumulative impacts in
20	the context of what's happening today, in the
21	context of our COVID-19 pandemic and Black Lives
22	Matter.
23	COVID-19, well, Harvard released a
24	study that gave evidence, that provided evidence
25	that long-term expose to PM2.5 air pollution will

increase the death rate of COVID-19. So there you 1 have the pollution part of cumulative impacts. 2 3 And, let me say, I should say, first, 4 for years the environmental justice community has 5 been saying that cumulative impacts not only harming our EJ neighborhoods, now, you know, coughing, death 6 7 and illness in our neighborhoods, now, because all 8 the pollution and the interaction of pollution with 9 each other, and social vulnerabilities, but it's 10 making these neighborhoods more vulnerable to other 11 environmental issues and public health issues that 12 might come along. And COVID-19 has, unfortunately, 13 proved this. 14 And the Harvard study showed or gave 15 evidence that long-term exposure to PM2.5 aire pollution increases the death rate of COVID-19. 16 And 17 I think it's been well established that the death rate of COVID-19 is disproportionately high in 18 19 communities of color. 20 And one of the reasons for that is 21 probably because of higher pollution, but also 22 because of the impact that race is having, right, 23 social vulnerability, right. Race is acting as a 24 social vulnerability, an insidious one. 'Cause who 25 would have thought that one reason the pandemic

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1	would hit communities of color harder is because a
2	higher proportion of those people in these
3	communities have to physically be present at their
4	jobs.
5	And, of course, we have higher rates,
6	people of color have higher rates of disease, so
7	underlying health conditions, less access to
8	healthcare. So all those factors combine to
9	increase the death rate in our communities of the
10	pandemic.
11	And, look, this is one reason why we
12	need to address cumulative impacts, right, and put
13	it in the context of Black Lives Matter. I think
14	now there is an interest in addressing social
15	justice issues, particularly social justice issues
16	that involve race.
17	So, now is the time. The pandemic,
18	the social situation is telling us that now is,
19	particularly, time. It was always the time to
20	address cumulative impacts, but, now, if we don't
21	address it now, when will we ever address it? Next
22	slide, please.
23	And in the context of the ports, one
24	thing I want you to walk away from this presentation
25	with, I should say, is an understanding of why as an

environmental justice community we are concerned 1 2 about ports pollution, and why we actually joined 3 the Coalition for Healthy Ports, which is a 4 coalition of EJ, environmental, faith-based and 5 labor organizations that attempts to eliminate and б reduce port-related air pollution. 7 And what was really driving us, New 8 Jersey Environmental Justice Alliance, to join the 9 ports coalition and works on ports-related pollution 10 was pollution from diesel-powered vehicles, from 11 And this has from posed a particular health trucks. issue in EJ communities. 12 I won't go over the health-related 13 14 issues from diesel-power emissions, because I think 15 we all know that. But since truck traffic is 16 particularly high in urban areas, there's a 17 particular health problem in environmental justice 18 communities, this is in New Jersey, anyway, 19 disproportionately in urban areas. 20 And, so, we supported a bill back in 21 2005 that said that publicly owned diesel vehicles have to be retrofitted. But the problem was the 22 23 public part of the fleet only represents a small 24 part of the entire truck fleet in New Jersey. Ι 25 think at the time it was like five percent of the

truck fleet in New Jersey. 1 The rest were privately 2 owned trucks. So we really were looking for ways to 3 address the privately owned diesel-powered fleet in 4 New Jersey. 5 And, so, we were looking for places 6 that were drawing a lot of trucks, the street truck 7 fleets. And we looked at the ports, and there were thousands of trucks every day servicing the ports. 8 9 And I apologize 'cause one thing I had intended to 10 do weeks ago was look up the number of trucks that service ports every day. It's in the thousands. 11 Ι 12 looked last night and I couldn't pin it down, so I'm 13 not going to quote a number, but I know it's in the 14 thousands, a lot of trucks there every day. 15 So we figured, look, we need to --16 this would be a good start in addressing 17 diesel-powered vehicles. Next slide, please. 18 And let me just layer that only a Let's add the layer of climate 19 little bit more. 20 change. And, actually, I was talking to Peg Hanna 21 yesterday, and she suggested I say something about climate change. 22 23 So the connection between the ports 24 and climate change is that, well I'll talk about 25 diesel-power emissions, diesel emissions coming from 1 diesel-powered engines, right.

2	The one that we worry about a lot, we
3	worry about NOx, and we also worry about diesel PM.
4	From a health point of view on a neighborhood level,
5	we probably worry about diesel PM more.
6	And, at the core of diesel particulate
7	matter is black carbon, and black carbon is a
8	climate change it causes it, helps cause climate
9	change. It's a climate-change agent.
10	So, by reducing emissions from trucks
11	or diesel-powered engines, you're going to fight
12	climate change, and, of course, I've said already,
13	you're going to improve the public health of
14	neighborhoods, of residents of neighborhoods that
15	those trucks are affecting. So it's a win, win.
16	Take a step back, though, and what
17	we're seeing from an EJ point of view is that we
18	want to use climate change mitigation policy, not
19	only to fight climate change, but to reduce the
20	disproportionate amount of pollution in
21	environmental justice neighborhoods.
22	And, for us, fighting using
23	climate-change policy to reduce that
24	disproportionate amount of pollution in EJ
25	neighborhoods is just as important as reducing

greenhouse gas emissions and, actually, fighting 1 2 climate change. One is as important as the other, 3 and addressing emissions from diesel-powered engines 4 gives us the chance to do both. 5 Now, you might remember those of you 6 that were on the Clean Air Council when I was on. Ι 7 left two or three years ago, time passes quickly. My last hearing with the Clean Air Council was about 8 9 the power plant, and we were advocating policy connected to that, that power plants located in EJ 10 11 communities need to reduce their emissions. And we're still doing that and gaining traction on a 12 national level, less than -- in New Jersey. 13 So, I 14 actually welcome the opportunity to come back and 15 talk about that. 16 And, look for out the Transportation 17 and Climate Initiative, which is going to be talked 18 about a lot, and which is going to try to reduce, as a climate-change policy is going to try to reduce 19 20 emissions from mobile sources, which the EJ 21 community has big problems with, without supporting it, because it's carbon trade policy. And, as you 22 might remember, the EJ community does not support 23 24 carbon trading, but, another issue maybe we'll talk about in the future. 25

1 But another reason why we're 2 interested in the ports is because it has that 3 climate-change connection, and that's the reason why 4 all of us should be interested in reducing emissions 5 from the ports. Next, please. So, let me wrap up by talking about a 6 7 type of policy that we're recommending that New Jersey look at to reduce emissions from the port. 8 9 But, first, well, let me go back to context for a 10 minute. 11 And, you heard Beth Rooney from the ports talk. Beth and I and Beth and the Coalition 12 13 for Healthy Ports, we interact a lot. I don't know 14 if Beth is happy about that. I'm kidding you. She 15 is. We're trying to work together on ports emissions. 16 17 Of course, we disagree on some things, 18 and one is that Beth points out that pollution, air pollution from the ports is really a small portion 19 20 of overall air pollution on a county or state level. 21 And we agree with that, but the problem with that point of view is that there's so 22 23 much air pollution on the county and state level 24 that every source is a small portion, every air 25 pollution source is only a small portion of the air

pollution in New Jersey. And a lot of the 1 2 facilities and activities that are producing air 3 pollution make the same argument. 4 I heard argument the other day from 5 Covanta, you know, who has incinerators in New 6 Jersey, when they testified about the cumulative 7 impact legislation. 8 They pointed -- they said, oh, don't 9 pick on us because we're only a small portion. 10 And, you know, the problem with that argument is that what it implies is that if you 11 12 can't regulate all of us at the same time, don't 13 regulate any of us. And, of course, that's not 14 going to work, because it's almost impossible to 15 regulate everybody at the same time. There are a lot of regulations on a 16 17 lot of polluting facilities right now that does 18 encompass everybody, but I think the state and 19 government is getting there or trying to, at least, 20 regulate, you know, most sectors. 21 And where we agree with Beth that we 22 should try to regulate all polluters in New Jersey, 23 where we disagree is that if we can't get them all 24 at the same time, we would say, if you can do 25 something to regulate the ports, let's do it, and

1	we'll get to other people, other facilities, as we
2	can. And the ports won't be the only ones being
3	regulated, as other facilities will tell you.
4	And, especially, when you look at it
5	from a local level, all those trucks that are in the
б	ports, not all of them are going through
7	communities, but a significant number are.
8	And on a local level, in EJ
9	neighborhoods near the ports, the trucks from the
10	ports could be a significant could yield a
11	significant or produce a significant amount of
12	pollution.
13	And we're, actually, doing some
14	modeling in our DC that may shed light on that, but
15	I wasn't quite ready to present it today, although
16	some of my colleagues might.
17	And Beth talked about the number of
18	trucks that are newer trucks, and I think you said,
19	like, 50 percent of them are 2007 or later. And, to
20	us, that's not a high figure, when you're
21	considering all of the thousands of trucks that
22	service the ports every day.
23	So I guess you want to say, is it half
24	full, is the glass half full or half empty? And I
25	almost guarantee you, if you live in a community

where the trucks related to the ports are making an 1 2 impact, you would say that that glass is half empty. 3 So what we want to suggest from a 4 policy point of view, or what I want to suggest to 5 you today, is that we look at California and look at some of the policies that they have implemented to 6 7 reduce port-related air pollution. 8 And I'll tell you I've highlighted, 9 like, three or four policies here, and I got these 10 policies from a memo written by two Earthjustice 11 attorneys, Jonathan Smith and Jasmine Jennings. 12 And, I tell you, I was overwhelmed by 13 the number of policies that California is instituting, the California Air Resources Board. 14 15 And I, you know, read the memo two or three times 16 and couldn't get my brain around it, so I decided to 17 just highlight three or four of them with you. 18 The real suggestion here is that we look at what California is doing and see what 19 20 policies we think would benefit New Jersey and adopt 21 those policies. 22 And I think we're actually aligned 23 with New Jersey DEP on this, where New Jersey DEP is 24 going to start a stakeholder process, I think, to do 25 just that. And we think that that is a great idea.

1 So you'll see on your screen one of 2 the policies I'm highlighting is a truck ban. And 3 from two or three -- I'm glad that Beth talked about 4 Because I had kind of conflicting information it. 5 about what the truck ban was from New Jersey and New 6 York as of today. 7 Suffice it to say that the truck ban 8 in California is stricter. So I'm suggesting that 9 we look at the California truck ban and see if that 10 would work in New Jersey. 11 The second one on this screen you see 12 that, basically, container vessels, passenger 13 vessels, refrigerated cargo vessels at berth docked 14 at the ports in California are using shore power, 15 and not auxiliary diesel power to reduce emissions. 16 CHAIRWOMAN CONNOLLY: This is Maria. 17 Just giving you a three-minute warning. Thank you. 18 DR. SHEATS: Thank you, Maria. 19 And, here, I'm highlighting that California has various performance standards, you 20 21 see for cargo handling, emission standards for marine engines, and emission standards for 22 commercial harbor craft. 23 24 I could get into more detail. Ι 25 should say I can't today, because there were so many

1	of them, I couldn't contain all the details. But I
2	can give you more details if you ask for them in the
3	near future.
4	But, again, look at those standards
5	and performance standards or emission standards and
6	see which one of those would make sense in New
7	Jersey.
8	And, actually, I'm going to stop right
9	there. Thank you for listening. I hope it was
10	coherent, and I hope you do walk away with why
11	environmental justice, the environmental justice
12	community is interested in Hey, Toby is
13	interested in port-related air pollution, why it
14	pertains to the cumulative impact framework.
15	And maybe I didn't say explicitly
16	that, you know, the trucks are part of the
17	disproportionate amount of pollution in
18	environmental justice communities in New Jersey.
19	Trucks, in general, and trucks related to the ports
20	contribute to that, and we need to address it.
21	That's it, folks, thanks. Any
22	questions?
23	CHAIRWOMAN CONNOLLY: Nicky, yes, I
24	think we have some Council members that have
25	questions. Let's limit our questions to about two

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1 minutes, so our next speaker can come on. 2 I think, Toby, did you have a 3 question? 4 I did. MR. HANNA: Thank you, Maria. 5 Can you guys hear me? 6 Yeah, hey Toby. DR. SHEATS: 7 MR. HANNA: It sure is interesting we 8 still have work to do. Great to hear your voice, as 9 well. 10 DR. SHEATS: Do you remember the first 11 hearing we did? 12 MR. HANNA: I still have scars, yeah, 13 But, yes, we formed some bonds back then, man. 14 didn't we? But the question I had for you, Nicky, 15 and it's probably a request more than anything, 16 because it's way more than we could talk about, with 17 the time we have, you know. 18 I'm very interested about the 19 methodologies around cumulative impacts, and maybe 20 you could share you with us the latest in the 21 technology, the models, the tools that are used for 22 cumulative impacts in EJ communities, particularly, 23 in this case, that we might think about for the 24 ports. 25 I know that's an evolving area and the

science, the technology there, I'd love to get your 1 2 information on what the latest is there. So maybe 3 you could do that, as a follow-up, even. 4 Okay, yeah, there are DR. SHEATS: 5 various screening tools, Toby, that, you know, 6 people have out in California spend, use, inform 7 policy, but, you know, for -- yeah, it's a longer 8 topic, but we're going to have to go into the 9 methodology. 10 If the cumulative impact bill gets 11 passed in New Jersey today, then the next thing is 12 rulemaking, and we're going to have to pay a lot of 13 attention how to address the issues, Toby. 14 MR. HANNA: Yeah, to make it work, 15 That's another part of that, the extended right. 16 reason we're interested, too, so anything you could 17 share on that would be great, Nicky, thank you. 18 CHAIRWOMAN CONNOLLY: Great, thank you 19 so much. Thank you, Nicky. 20 I know our next speaker is coming up, 21 and Mike Egenton is going to introduce him. 22 CO-CHAIRMAN EGENTON: Thank you, 23 Maria. 24 Tim Sullivan became Chief Executive 25 Officer of the New Jersey Economic Development

1 Authority in February of 2018.

2	EDA serves as the state's principal
3	agency for driving economic growth and is committed
4	to making New Jersey a national model for inclusive
5	and sustainable economic development by focusing on
6	key strategies to help build strong and dynamic
7	communities, create good jobs for New Jersey
8	residents, and provide pathways to a stronger and
9	fairer economy.
10	During his tenure, Tim has led the

During his tenure, Tim has led the EDA's transformation to a comprehensive economic development organization, including the creation of new offices and initiatives aimed at implementing Governor Murphy's vision for a stronger and fairer economy by enhancing New Jersey's long-term economic competitiveness and strategic sectors and communities across the state.

18Tim has overseen the creation of the19EDA's office of Economic Transformation, focusing on20areas such as a dedicated small business unit21charged with providing robust financial workforce22and technical support to the state's small business23community with a focus on historically unrepresented24firms.

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And let me just add that during this

1	COVID-19 pandemic, Tim and his team at EDA have been
2	extremely helpful in providing information and
3	guidance and assisting all types of businesses who
4	have been impacted by financial issues.
5	I, for one, want to express my sincere
6	gratitude and also my appreciation on how busy Tim
7	is on a day-to-day basis, and welcome him to our
8	Clean Air Council Public Hearing today.
9	Tim, welcome.
10	MR. SULLIVAN: Well, thanks, Mike.
11	It's great to be with everybody, and thanks for that
12	very kind introduction, and the partnership we've
13	had with you and the Chamber and Tom. It's been
14	strong pre-COVID and strong during COVID. I hope it
15	strong whenever we're post-COVID.
16	Honored to be with everyone and
17	appreciate the chance to spend a few minutes with
18	you. I have a couple slides I hope can get shown up
19	on the screen. I can only, basically, see myself
20	and Mike, so I'm not sure what everyone can see
21	there. Is somebody able to pop my slides up for
22	projection?
23	CO-CHAIRMAN EGENTON: Heidi, can you
24	put Tim's slide up?
25	MR. SULLIVAN: I can do it without the

1	slide, if need be, but I always like a visual aid,
2	if at all possible.
3	Anyway, while that's getting set up,
4	again, on behalf of Governor Murphy, I'm thrilled to
5	be able to spend a few minutes with everyone. I've
6	been part of the governor's team, now, pretty much
7	as long as he's been governor, two-and-a-half years
8	now.
9	And the topic that we're here to talk
10	today, and that's for the broader remit of this
11	group, I think, was central to our strategy prior to
12	this crisis, how we could think about clean energy
13	and a resiliency strategy for the environment, for
14	energy that fuels an economic growth and an economic
15	renaissance in New Jersey?
16	Again, that was true prior to this
17	pandemic and prior to this crisis, but it's only
18	going to become that much more important as we think
19	about how we power, both metaphorically and
20	literally, our recovery out of this crisis.
21	Because, you know, first and foremost,
22	you know, COVID-19 is a public health crisis, and
23	the human suffering and the death and the number of
24	folks that have been in the hospital and impacted is
25	staggering and more than anyone, I think, was

1 prepared for. 2 It's also an economic crisis, you 3 Don't get too distracted by the 32 percent know. 4 down GDP number, get more distracted by the ten 5 percent quarterly GDP decline number across the 6 country, biggest GDP decline in U.S. history. 7 We continued unemployment. There's 8 now 1.44 million New Jersey residents who have filed 9 unemployment at some point in the past four or five 10 It's a staggering amount, considering we months. 11 had prior to the crisis about four-and-a-half 12 million jobs in the economy. 13 So that's almost one out of three 14 people filing an initial claim, and close to 15 two-thirds of that filing continuing claims. We 16 have several hundred thousand people unemployed, 17 compared to when we started back in February. 18 So, we got work to do. But I think 19 the work of partnering and infusing clean energy, 20 clean air environmentally sound economic strategies 21 is more important as we roll forward here. 22 CO-CHAIRMAN EGENTON: Hey, Tim, just a 23 quick interruption. 24 MR. SULLIVAN: Yeah. 25 CO-CHAIRMAN EGENTON: Your

1 presentation is on the screen. 2 MR. SULLIVAN: Yes, I see it now. 3 CO-CHAIRMAN EGENTON: So, hopefully 4 you can see it. It's on the first page. 5 MR. SULLIVAN: Yes. I was just preambling. So, Heidi, if you can go to the next 6 7 slide. Thanks, Mike. 8 CO-CHAIRMAN EGENTON: That's great. 9 MR. SULLIVAN: So one of the things I 10 just want to mention, I'll do a little bit here on 11 COVID in the beginning, and then I want to get to, I 12 think, the main topic that Mike asked me to join to 13 talk about, which is the wind energy and this wind 14 port. 15 You know, I've got the privilege of 16 being one of the three co-chairs of the governor's 17 Restart and Recovery Advisory Council, trying to 18 think about not just the short-term, how to get reopened and get back to work and get back to 19 business and get things safely reopened, but also 20 21 mainly about the recovery dimensions of this. And as I mentioned I think 22 23 sustainability, broadly, resilience, broadly, I 24 think are critical tools, or critical themes of our 25 recovery strategy here as we begin to, hopefully,

emerge from the worst of the public health crisis. 1 2 But the economic dimensions of this thing are going 3 to be with us for some time. 4 Can I go to the next slide, please? 5 Heidi, can I have the next slide, please? Well, I 6 know what's on the next slide, but you don't. 7 Actually, just give me two slides ahead, if you 8 could, yeah, perfect. 9 We've spent a lot of time in the last 10 four or five months standing up COVID relief 11 programs, and I think it's really important as we think about how we roll forward here. 12 13 One of the things we've got to do, 14 to have a sustainable recovery, we've got to have as 15 many small businesses survive and be stabilized 16 through this time period. 17 So we've had grant programs, loan 18 programs, partnering with CDFI guaranteed programs for entrepreneurs, technical assistance, if you 19 20 start rolling out in a bigger way, yesterday, really 21 trying to have a comprehensive suite of programs to think about how we get through and survive this 22 23 pandemic, particularly from a small business 24 perspective. If I can go to the next slide, please. 25 That's the portion of the program on

1	COVID. I'd be remiss if I didn't just mention it
2	because, obviously, this is a small business crisis
3	every single day right now.
4	But I want the talk about the New
5	Jersey Wind Port and wind energy, broadly. If I
6	could go to the next slide, please.
7	You know, we've talked a lot about,
8	since the beginning of the Murphy administration,
9	and this has been an area of strong harmony and
10	support with legislative leadership in both chambers
11	and the governor, between the business community and
12	labor, you know, environmental advocates,
13	recognizing the once-in-a-generation opportunity
14	that offshore wind represents, not just for New
15	Jersey, but for the Northeast and for the country.
16	It's projected that a hundred billion,
17	and that's probably a light estimate, a hundred
18	billion dollars is going to be invested in the
19	waters off the Carolinas up through Maine over the
20	next 15 years, an extraordinary amount of
21	infrastructure investment and energy investment
22	that's poised to happen.
23	And New Jersey is genuinely positioned
24	in, I think, making all the right moves, not just
25	from an energy procurement and a BPU perspective,

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1	and shout-out to Joe Fiordaliso and his great team
2	at the BPU, but also to think about how we harness
3	the onshore benefits of offshore winds, meaning the
4	economic benefits, not just powering our homes and
5	powering our businesses with the electricity that
6	will come off of this, but the economic impact of a
7	brand-new industry. Next slide, please.
8	We think about the windport that we're
9	proposing to build down in Lower Alloways Creek,
10	which is in Salem County. It's really part of a
11	network of offshore wind-related port assets.
12	Some of those are existing assets,
13	like, you know, Newark and Elizabeth up north, but
14	also Paulsboro, where we think there's a huge
15	opportunity, actually, to build into Salem County
16	windport actually strengthens the viability of the
17	positioning of Paulsboro as a wind asset, as well.
18	Because one of the things, I've
19	learned all this in the last two-and-a-half years,
20	is, these windmills have to go out to sea like this,
21	not like this. And so you can only assemble them in
22	their final assembly outside of major bridges, or
23	any bridges, really, because some of them are as
24	tall as the Eiffel Tower. So, you can't sneak that
25	under the Ben Franklin. That's not going to happen,

1	or even the Delaware Memorial Bridge. You've got to
2	get outside the bridges to build these things.
3	But we think that Paulsboro represents
4	a significant opportunity for green manufacturing.
5	Float those things down the river to Lower Alloways
6	Creek, assemble them, and put them out to sea from
7	there, as well as in Atlantic City, where we think
8	there is significant opportunity as well on the
9	waterside. Next slide, please.
10	So this is just sort of a rendering.
11	Again, Governor Murphy proposed this, or announced
12	this, excuse me, in mid June. This will be the
13	first purpose-built offshore windport in the United
14	States. And the reason we say purpose-built, there
15	are other states that are trying to reposition their
16	purports to be wind-related ports.
17	This is the first time that it's going
18	to be sort of, not quite a greenfield, because it's
19	next to a nuclear power plant, but it's pretty close
20	to a brand-new greenfield site on an artificial
21	island that'll be purpose-built for wind, to have
22	the manufacturing and the marshaling, which is a
23	fancy wind industry word for "assembly," of the
24	final towers and turbines all in one place.
25	And co-locating that manufacturing,

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this has been the key to the economic impact of wind 1 2 in Northern Europe, for example. There are several 3 of these in Northern Europe. There are none in the 4 United States, as we sit here right now. 5 So we're talking about building the 6 first purpose-built offshore windport in America. 7 This is several hundred acres. It's right next the 8 PSE&G nuclear power plant in Lower Alloways Creek, 9 at Hope Creek there. 10 The opportunity that's going to weigh, 11 that is, you know, we talk about developing several 12 hundred acres in New Jersey. There's always lots of 13 questions that come up and they're all good and fair 14 and reasonable questions about the environmental 15 impact and everything else. 16 This is about, I think, as good a site 17 as you can think of to build an asset like this. It's on an artificial island. I think the nearest 18 house is five miles away. 19 20 We're going to, obviously, partner 21 with the local community and do all the right planning and zoning and all local considerations 22 But it's got about as much -- there's about 23 here. 24 as much to like about this from an environmental 25 perspective as a development matter than anything

1	I've ever been involved in at this kind of scale.
2	Next slide, please.
3	So this is a big deal. This is a
4	three to four hundred million dollar green
5	infrastructure investment that we're committed to
6	doing all the things in the construction side, the
7	development, design side to incorporate energy
8	efficiency and resiliency and all the right green
9	infrastructure design principles into this.
10	We're talking about 1500 permanent
11	manufacturing, assembly and operations jobs right
12	here in Salem County. Salem County is the second
13	poorest in New Jersey. 1500 jobs is a huge, huge
14	relative impact for Salem County, for South Jersey.
15	Hundreds of construction jobs targeted to start as
16	early as in 2021, if everything breaks our way, and,
17	really importantly, a half-a-billion dollar impact
18	every year from this facility.
19	We've also committed to, it's not on
20	the slide for some reason, but we're going to set a
21	new standard here. And easier said than done, but
22	we're saying it and then we're going to do it,
23	setting a new standard here for inclusion of
24	minority- and women-owned contractors and businesses
25	and employees along the way.

1	Again, easier said than done. We'll
2	have some announcements on how we're going to do
3	that in the next couple weeks. But this is going to
4	be, we're going to do as many things right here as
5	we damn well can, because this is a unique
б	opportunity in a crisis during a time when this
7	investment is so badly needed, that we're going to
8	do everything we can to make sure that this is a
9	genuinely impactful economic development initiative.
10	So the idea here is, we would start
11	construction as early as, hopefully, in 2021, be
12	able to deliver the project so that the first New
13	Jersey project, Ocean Wind, which is our first such
14	project, could, if it chooses to, marshal from here.
15	But this is also going to be a neutral port. This
16	is the really important part of the program design
17	here.
18	Yes, of course, we want to support the
19	projects that are going to be the ones that are the
20	winners in the BTU solicitations. But we also
21	think this is a regional and, sort of, macro
22	regional asset.
23	We want to be able to host and support
24	projects that are going to marshal for, again, as
25	far south as the Carolinas, as far north as Maine.

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support, obviously, from the governor and his entire 1 2 team, and all of our various instrumentalities 3 throughout the state, our, you know team at the EDA, 4 Joe and his team at the BPU, Catherine, her team at 5 DEP, lots of other agencies and partners, including б the governor's office, senate president, Chairman 7 Burzichelli. Lots of other local leaders in 8 9 Salem County have been extraordinarily supportive 10 of this, and senate president, as I mentioned, has 11 been a champion for this and has been a great 12 supporter of this. 13 So this is an idea and a project that 14 I think is an extraordinary kind of 15 once-in-a-generation kind of project for Salem 16 County, for South Jersey, for New Jersey. So we're 17 incredibly excited about that. 18 I have one more slide to get through 19 and then I'll pause. I know we want to probably 20 have some good Q and A and discussion. I'm sure 21 there's lots on the windport. Last thing I want to mention, next 22 23 slide, please, is also related to, sort of, the 24 nexus between sustainability and economic growth, is 25 RGGT.

1	So, great to be back in RGGI. Kind of
2	lost in the shuffle, we did an announcement back in
3	I think March or April. It was like the first
4	non-COVID thing we did. It was in April that
5	the Strategic Funding Plan had been promulgated.
6	This is a really extraordinary
7	opportunity, again, not just to do the right thing
8	for the air we breathe and for our kids and our
9	grandkids and those that will follow us here, but
10	also an opportunity to support the economy, to
11	support a green economy in New Jersey.
12	We think that the I think the plan
13	that the governor put out for this funding plan,
14	again, quarterbacked by Catherine and by Joe, with
15	us, principally, playing a supporting role in
16	partnering with them is really extraordinary around
17	not just really, our whole litany of economic
18	opportunities for us.
19	Particularly, we're talking about
20	electric vehicles, particularly trucks, or,
21	particularly, medium-duty vehicles, high-duty,
22	heavy-duty vehicles, to get as many of those
23	converted into a cleaner electric, as soon as we
24	can.
25	But also, really importantly, again,

1	if we can establish a market leadership position
2	from a regulatory and a funding perspective, we
3	think there's huge opportunities to attract
4	manufacturing and supply chain.
5	Again, the Northeast is the place
б	where, if you're going to have an electric truck
7	ambition, electric, you know, MDHV ambition, as a
8	company, as a manufacturing matter, the Northeast is
9	the densest and the biggest area of opportunity for
10	you.
11	We think New Jersey is really well
12	positioned to get some, if not lots, of that
13	economic activity. And putting that RGGI funding
14	together in a strategic way is a really important
15	part of that ambition.
16	We just put out an RFI, Request for
17	Information, to generate some ideas around this.
18	We'll likely have some more concrete plans coming
19	out on this in the very late summer, early fall kind
20	of time frame. We're really excited about the
21	opportunities that lie ahead of us.
22	And Jonathan Kennedy, who some of you,
23	hopefully, have gotten to know, is helping to lead
24	the charge here. We just brought out a new head of
25	our sector lead for clean energy who brings a wealth

of experience to help us, you know, partner with our 1 2 peer agencies and then partner with the private 3 sector of labor and environmental groups to really 4 get this right. 5 This is an extraordinary opportunity, 6 getting back into RGGI, having this funding 7 available, at a time when funding is going to be 8 hard to come by for a bit, 'cause this is, it's a 9 public health crisis, it's an economic crisis and 10 it's a fiscal crisis. So having some funding 11 available that is dedicated just to this ambition is 12 incredibly important and impactful. 13 So we're looking to put this to work 14 expeditiously, but thoughtfully in the weeks and 15 months to come here. 16 So, with that, those are all of my 17 slides. I'm happy to take as many questions as we wish. And, Mike, thanks for the opportunity to be 18 with everybody. And I wish we were able to do this 19 20 in person, but sometime soon, I hope. 21 Another slide, I apologize. We're also thinking about 22 environmental sustainability around brownfields. 23 We 24 launched a program with DEP to expand the community 25 collaborative initiative to get more boots on the

ground in local communities to support sustainable 1 2 development, not just from a brownfield perspective, 3 although that's critical, as well as, you know, 4 things like, you know, environmental layering in and 5 getting early input around issues like environmental 6 justice, floodwater management, storm water 7 management, all the key issues in the time of 8 development, a development project, is getting that 9 work done early and having those conversations 10 early, which is when we -- that's the good time to 11 have it. We're partnering that with 13 cities 12 13 to have direct DEP resources funded by EDA available 14 and committed as partners on the ground in those 15 communities. We think this is a good way to solve 16 complex environmental issues. It's something 17 Catherine and I kind of early on recognized as a 18 great model, and worked, done some really great work 19 in Camden. 20 We said, why don't we kind of blow that out and take that statewide, which is something 21 that we both committed to doing, and now we're 22 23 doing, so we're excited about that. Next slide, 24 please. 25 One more quick note around

1	brownfields. We are going to launch, probably right
2	after Labor Day, a brownfield loan program. Show
3	the next slide, Heidi, if you could help out there.
4	It would be about a four to five
5	million dollar loan tool that is available for
б	developers, primarily. And brownfields are a good
7	and smart investment anytime, because cleaning up
8	means, cleaning up and making more productive land,
9	you know, available for productive use land is a
10	good thing for the environment, for development, for
11	jobs.
12	It's a really important, even more
13	important area of focus during crummy economic
14	times, because it takes a long time to get a site
15	cleaned up and ready to go. And if you are
16	long-term optimistic, but short-term a little bit
17	more uncertain, that's a good time to think about
18	how you prepare sites to be ready a year or two or
19	three years from now when the growth curve starts
20	doing what we want it to do again, to get these
21	sites ready to go.
22	These, again, these can be large, you
23	know, multi-acre, multi-tens of acres sites. These
24	can be small postage stamp, you know, gas station or
25	dry cleaner type sites as well, where there's

1	significant opportunity for, not just environmental
2	remediation and blight reduction, and all those good
3	things, but also economic growth.
4	Now, this is going to be a low
5	interest loan, up to, I think, four million dollars,
6	maybe five. We haven't finalized that, maybe four
7	or five million dollars, we're still wrestling with
8	that, with a three percent interest rate, ten years,
9	ten-year term, no payments for the first two years.
10	So we really wanted to, we really want
11	to lean into that. And, again, this is something we
12	were going to do prior to the crisis. I think there
13	is going to be more interest and more need for this
14	during this crisis. Next slide, please, and then
15	I'll go back to saying thank you.
16	We've also stood up, we talked about
17	the community collaborative initiative. That's
18	really focused on 13 cities. We also partnered with
19	NJIT around brownfields. They've got a great group
20	of technical assistance providers up there.
21	We've created the New Jersey
22	Brownfields Assistance Center, also the BAC, not to
23	be confused with the Business Action Center, our
24	dear partners and colleagues under Melanie's
25	leadership, but a different BAC, to provide free

technical resources to communities that want to do 1 2 the right things around planning, and not just 3 planning their remediation, but planning the 4 redevelopment of brownfields. 5 So, this is a -- it provides free 6 quidance and resources to county and municipal 7 governments to think about redevelopment. So if you 8 you're interested in that, check out NJIT's website 9 there, njit.edu/njbrownfields. 10 Now I'm done. Thanks for the 11 opportunity to be here. Sorry I went a little 12 longer and forgot I had a couple slides there at the 13 end, but appreciate the chance to visit with 14 everyone. Happy to take some questions. 15 CO-CHAIRMAN EGENTON: Thanks, Tim. 16 Very detailed initiatives that you shared with us, 17 and we certainly appreciate it. 18 MR. SULLIVAN: That last segment I 19 went on too long. 20 CO-CHAIRMAN EGENTON: Oh, no, no. 21 It's all good. You're doing a lot of things, and I 22 know full well, because working with you and your 23 team, and certainly from my end of the representing 24 the New Jersey State Chamber of Commerce and the business community, we really appreciate the 25

1 collaboration.

2 We're excited about the windport 3 project. I think, you know, very rarely, as you 4 know, you see the business community the trade labor 5 groups, our friends in the environmental community, just everybody in line, you know, excited about this 6 7 new industry sector coming here and the jobs that go with it. 8 9 So my question is, can you just talk a little bit about your collaboration, like, say with 10 11 Rob over at Department of Labor on the work force 12 development aspect? Because this is a new industry 13 sector, and, obviously, we're going to have to train 14 people to operate and maintain the wind power 15 structures as we go forward. So I thought if you 16 could take an opportunity and talk a little about 17 that. 18 MR. SULLIVAN: Yeah, great question. And one of the big ideas that the governor, and this 19 20 actually goes back to the economic development plan 21 of 2018 that he put out. It was something called the WIND 22 23 Institute. We came up with some acronym to make up 24 the word "wind," but it's an institute for wind. Ι think the W stands for wind, I don't know what the 25

1	rest new development, or something. But it's
2	basically exactly what you're describing, Mike.
3	It's a partnership that we're in the process of
4	still forming, DEP, BPU, EDA, and Labor.
5	So think, exactly, two things: One,
6	the work force development dimensions of this.
7	Again, this is a brand-new industry. It's adjacent
8	to certain industries, so huge opportunities for the
9	trades around construction.
10	Although, building something
11	underwater is different than building something
12	under dirt, and so there's some training and new
13	things to learn there. Building something up 300
14	feet in the air is different from building
15	something, you know, not in the middle of a wind
16	patch, in the middle of the ocean.
17	So there's some training and work to
18	do with the trades, and we're thrilled to be
19	partnering with so many of them on this.
20	And then, also, the operations and
21	maintenance and the manufacturing jobs, there's a
22	huge new work force again. It's adjacent to things
23	we have now, but there is no US offshore wind
24	industry right now.
25	And, so, we've got, one of the great

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resources has is our work force and our talent. It
needs some training and some specific initiatives to
really connect them with these jobs, and so it's a
huge opportunity we're partnering with Rob and his
great team on.
CO-CHAIRMAN EGENTON: Great. Thank
you, Tim. Maria, I'll hand it back to you, if there
and other questions

9 Yeah, actually, Tim, CHAIRMAN VALERI: this is John Valeri, I'm Chair of the Council. 10

Thank you for coming today.

are other questions.

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12 Appreciate the information, appreciate all you do. 13 You know, particularly, since this is 14 an issue regarding the ports and transportation for 15 the Council, me, in particular, it's been very much 16 of an interest, in light of all the data that shows 17 up, how transportation, particularly, impacts the urban areas and the state, as we're seeing, when the 18 19 economy shut off and emissions went down, you know. 20 The RFI, I'm very curious on timing of 21 that, because, at least in my opinion, that initiative is what's going to really bring the bang 22 to the buck on reducing emissions in the port area, 23 24 beyond what the ports themselves can do. And, so, I

think I'd like just to hear a little bit on some of 25

your, you know, the details on timing on that, where 1 2 that's going to go. MR. SULLIVAN: 3 Yeah, so, we're excited 4 I think you're right, I think that's a about that. 5 huge opportunity. I think it's not only a huge 6 environmental quality issue, it's a huge 7 environmental justice issue as well. 8 I can't do the stats off the top of my 9 head as well as others can, but the disparity of 10 asthma rates, for example, in the, you know, areas 11 near the ports are extraordinary and unacceptable. 12 And, so, certainly the trucks are a 13 huge opportunity, as well as the medium-duty trucks, 14 don't forget. We've all seen with delivery, I'm 15 sure everyone else is getting more packages, just 16 like me, getting more packages delivered at home 17 than they were six months ago. There's a lot of 18 sprinter vans out there running around. I'd sure as 19 hell would like those to be electric. And, so, I 20 think that's a huge opportunity. 21 It depends on what the -- you know, 22 there's a couple dimensions. There's the regulatory 23 dimension, how to use regulation as a strategic 24 advantage, and California has done something, I was 25 gone for the last part of the conversation, has done

some things that are interesting, but maybe not 1 2 exactly what you would want to do, but they've done 3 some things that are, I think, interesting for us to 4 qo to school on, as, sort of, how do you use 5 regulation as a strategic advantage? We've seen that on gaming, by the way, 6 7 do a little tangent. Online gaming has been a huge -- the smart way that we did online sports 8 9 betting created opportunity, and I had nothing to do 10 with it, so, I'm just bragging about work that DGE 11 and Gurbir and the governor's office and legislative 12 leaders did on the way sports betting was legalized, 13 created a significant economic competitive advantage 14 for supports betting to take place in New Jersey. 15 I only mention that as a way, 'cause 16 people like me usually don't think about regulation 17 as a competitive advantage. It can be. And, so, I think that's a huge opportunity to think about 18 getting some advice on how we think about that as an 19 20 arbitrage for competitive advantage. 21 And, then, two is around funding. The question is, where in the stream do you want to 22 23 target limited dollars? Do you want to, kind of, do 24 midstream in thinking about, you know, we're 25 probably not going to be doing a lot of the heavy

manufacturing, but sort of the late stage, 1 2 later-stage manufacturing, and the component 3 manufacturing could be part of the exercise. 4 And how much do you want to go, sort 5 of, at the fleet level? And think about a very, 6 very distributed basis. 7 I don't know the answers to those 8 That's one of the reasons we ask for questions. 9 people's input and advice. Because there's not 10 enough dollars to do everything one would wish to 11 do. 12 Nor, by the way, do I think the public 13 sector needs to do all the investment. You want to 14 figure out where we can get the biggest leverage on 15 scarce public dollars. Because, again, there's no 16 shortage of needs, and the public sector -- the 17 private sector is going to -- ideally, this is an 18 entry if you kind of get the flywheel effect going, 19 it'll, sort of, self-sustain, you know. The 20 investors will make money and banks will be get paid 21 back and we'll get the products we want to see on 22 the street. 23 We want to think about, how can you 24 stretch the dollars the most to invest as little as 25 you have to invest to get the economic and

environmental impacts you want? And, so, I think 1 2 that's exciting and, hopefully, we'll have some 3 programs around that as early as this calendar year. 4 CHAIRMAN VALERI: Excellent. Thank 5 you. CHAIRWOMAN CONNOLLY: 6 Any other questions from the Council members? (Pause.) 7 8 CO-CHAIRMAN EGENTON: Thank you. 9 CHAIRMAN VALERI: Thanks. 10 CHAIRWOMAN CONNOLLY: Great, thank 11 you, Tim. MR. SULLIVAN: Pleasure to be with 12 13 everybody. Stay safe. Stay healthy. 14 CO-CHAIRMAN EGENTON: Thanks, Tim. 15 CHAIRMAN VALERI: Thank you. 16 CHAIRWOMAN CONNOLLY: Okay, our next 17 speaker is Allen Schaeffer, the Executive Director of The Diesel Technology Forum. 18 19 Are you there, Allen? 20 CHAIRMAN VALERI: Allen, I think 21 you're muted. 22 MR. SCHAEFFER: Oh, thank you. Yes, I 23 am here. Good morning, everybody. Can you see my 24 screen? 25 CHAIRWOMAN CONNOLLY: Yes. I see you.

1 There we go. 2 MR. SCHAEFFER: All right. Well, 3 thank you very much. I want to thank the New Jersey 4 DEP staff for inviting me, and, of course, the 5 Council for entertaining our presentation this 6 morning. And I'll be focusing, substantially, on the opportunity that's off the road. 7 I've heard a lot of talk about trucks 8 9 this morning, and maybe not as much talk about 10 vessels and the opportunity that exists there. But, 11 hopefully, in the next 15 minutes or so we can 12 highlight that opportunity for you. 13 Just a quick word about who we are. 14 The DTF is a not-for-profit 15 educational organization. This is our 20th year 16 anniversary. We represent leaders in clean diesel 17 engines, fuels, emissions-controlled technology. Ι 18 thank all of them for their support. 19 Just to level set everyone about the 20 role of diesel in New Jersey, I think we're all 21 aware of the significance of diesel in the trucking sector, which has gotten a lot of attention in this 22 23 port conversation. 24 But beyond that, diesel plays a key 25 role in many sectors of the New Jersey economy,

1	whether it's providing emergency backup power,
2	helping to install new safety features for rail,
3	et cetera, so, lots of activity on diesel in New
4	Jersey.
5	And maybe just to level set everyone
6	from the outset here, kind of, where are we with
7	diesel technology here today, the chart that you're
8	looking at on the left-hand side of the screen is a
9	consolidated chart that represents on-highway,
10	off-highway, light-duty, heavy-duty marine,
11	locomotive, heavy-duty truck standards on emissions,
12	with particular matter on the left-hand vertical
13	axis and nitrogen oxide emissions, on the right-hand
14	axis.
15	And I would just point out that you
16	can see the tremendous stairs stepping down towards
17	the baseline of zero, and I think that's the case of
18	where we are today, with new technology diesel
19	achieving near-zero emissions, really, across all
20	emissions. And it's been that way since 2010 for
21	commercial trucks, 2014 for off-road engines and
22	equipment, including marine and locomotive vessels
23	as well.
24	Just to give you a short glimpse of
25	how this industry views the future, first of all,

it's getting emissions closer to zero, and there are 1 2 a number of moves afoot right now for that, 3 including the EPA Cleaner Trucks Initiative, which 4 industry supports, that will take emissions even 5 closer to zero for nitrogen oxides, particulate б matter, and, probably, and do some other things as 7 well. 8 The engines will be getting more 9 energy efficient, as manufacturers look to comply 10 with greenhouse gas roles on the commercial trucking 11 side, and meet increasing customer needs for fuel 12 consumption on the off-road side. 13 And then the last two, the expanded 14 use of high-quality advanced renewal biofuels and 15 hybridization represent significant opportunities to 16 leverage the diesel platform to achieve really 17 substantial results going forward. So now I'd like to really get into the 18 nitty about the modernizing and upgrading of 19 20 existing large diesel engines. 21 And, first of all, just to make sure everybody understands, kind of, what we're talking 22 23 about, what is a marine workboat? 24 So if you go out to the dock at the 25 Port of Elizabeth, or Port of New York, New Jersey,

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1	any of the ports there, you'll be looking out on the
2	water, you'll see a whole range of different kinds
3	of vessels.
3	OI VESSEIS.
4	These can be tugboats. They could be
5	fireboats. They could be some larger fishing
6	vessels. They could be offshore service vessels,
7	particularly those that might be helping to serve
8	the new wind energy initiative that was just
9	discussed in the future. And they could, of course,
10	be passenger vessels, ferries, obviously, being a
11	big one of those.
12	What we're not talking about are
13	oceangoing container vessels or cruise ships or
14	recreational or pleasure craft. Those are not
15	included in today's discussion.
16	Just to visually highlight some of
17	these vessels for you, and I think we all saw a few
18	months ago when the USNS Comfort came into New York
19	Harbor to help respond to the COVID-19 crisis, and
20	it was diesel-powered workboats there, and they
21	happened to be sporting some new Tier 4 generation
22	engines that helped maneuver that vessel into port.
23	So diesel plays a significant role in
24	every kind of harbor and port activity, because it's
25	the technology of choice for workboats, through its

unique combination of a range of features, including 1 2 safety of the fuel, the durability of the 3 technology, and as I mentioned, now achieving 4 near-zero emissions. There are a handful of other fueling 5 б options for some of these vessels, but by no means 7 the majority, and I would say these are measured in 8 the fractional percentage, compared to the overall 9 fleet of marine vessels. So diesel is the primary 10 workhorse of the marine industry. 11 If we look out beyond the workboat 12 sector and focus on passenger vessels for a moment, 13 moving people in and out New Jersey is a key 14 activity. And, according to the Bureau of 15 Transportation's statistics, there's around 39 16 ferries or so in operation in New Jersey. We, 17 actually, have a number that's a little bit higher than that, up into the 50s. 18 And if you look at the choice of power 19 20 plants for these ferryboats, you can see that diesel 21 is the overwhelming technology of choice for the passenger ferries, as per the National Census of 22 23 Ferry Operators. 24 If we dig a little bit deeper, looking 25 at the emissions inventories from vessels in the

1	harbor craft, again, this is both the passenger
2	vessels and workboats, you get a sense of the
3	significance here, harbor craft about 27 percent of
4	all the fine particle emissions, in 2011, according
5	to the EPA National Port Strategy Assessment, and on
6	the NOx side, the right-hand side of your screen,
7	harbor craft account for about 47 percent of those
8	emissions, with oceangoing vessels making up the
9	other percentage, 33 percent in each, in the
10	categories here.
11	So we have been well aware of the
12	interest of the community, the ironbound community
13	and others, in achieving immediate benefits in clean
14	air and reducing emissions in and around their
15	ports.
16	And much of the focus in these
17	conversations has been on trucks. And trucks is the
18	obvious one, because it's a visible thing that flies
19	up and down the streets every day. It's something
20	that people interact with on a regular basis. You
21	see it, you're in traffic with it.
22	But the marine workboats and tugboats,
23	these are not being seen every day by the public,
24	but I'd like to share with you why we should focus
25	on those in terms of the opportunity that it

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presents to clean up the air in these communities in 1 a real near-time kind of basis. 2 3 Just going back to the chart I showed 4 a little bit earlier, and just pulling out the 5 marine workboat sector now, you can see the progress б being made on new technology engines. 7 And to give everybody a sense of what 8 happens, I think, you know, we're all familiar that 9 our passenger car has one engine, a commercial truck 10 has a single engine. 11 Workboats are very different in this 12 regard. It's typically two major propulsion 13 engines, each of them could be several thousand 14 horsepower, as well as some additional auxiliary 15 engines to power hoteling and electric generator kind of functions for the vessel. 16 17 So these boats have a lot of machinery below the water line that enables them to generate 18 19 the enormous force necessary to move these gigantic 20 vessels in the water safely. 21 Passenger vessels, maybe a little bit 22 more variability there. It's also a very large 23 vessel, obviously, and could have multiple 24 propulsion units or just a single large one, 25 depending on whether it's hauling just people or

people and vehicles as well. So when we're talking 1 2 about engines on these workboats, and vessels, we're 3 talking about at least one and possibly more than 4 one. 5 So the opportunity is substantial for б not only the operator, but the communities at large 7 for getting substantial benefits. And what we're 8 talking about here is the replacement and repowering 9 of existing engines in these vessels. 10 And, so, the Tier 3 and Tier 4 11 engines, these are the third and fourth generation of advanced clean diesel technology, and they 12 13 provide substantial benefits in terms of NOx 14 reduction and PM reduction as well, but I know NOx 15 is a major emphasis here. 16 So, just looking at the workboat 17 opportunity, and compare it to the truck 18 opportunity, you can get 30 tons of NOx reduction a year for a single workboat repower. And this is 19 20 equivalent to having to do 96 drayage trucks. 21 Similarly, on the switch locomotive, 22 there is a huge opportunity there to get nine tons of NOx per year for some of these older units, 23 24 compared to having do to do 36 truck projects. So we see a tremendous numbers benefit 25

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1	there for relignmeltens and requiletens that here to
1	there for policymakers and regulators that have to
2	implement these kind of programs. You're dealing
3	with less kinds of activity, but getting even
4	greater benefits.
5	We were delighted to work with the
6	Environmental Defense Fund two years ago on a
7	research project that asked a couple of questions
8	about what the opportunity on emissions benefits was
9	for repowering these vessels, number one.
10	Then, we also wanted to understand the
11	age of these vessels operating in the ports in the
12	US today. And this infographic on this screen to
13	the left kind of gives you a sense of that. And I
14	just recited some of those numbers.
15	But for, particularly, now, in a
16	economic turbulent environment and one that's
17	constrained, likely, going forward for the near
18	term, we can eliminate one ton of NOx with these
19	engine repower and replacements for \$5,000.
20	And this is a tremendous
21	cost-effective investment that gives more clean air
22	faster than many other approaches that the state
23	might be considering.
24	A major part of our research that we
25	did with EDF was trying to understand exactly how

old these units were. 1 Diesel is long renowned for the 2 3 durability of the technology, which is a huge 4 advantage if you're a vessel operator and spend well over a million dollars for this important asset that 5 you're going to have for ten, 15, 20, 30 years or 6 7 more. So our research identified that the 8 9 engines actually are older, sometimes two times as 10 old as the EPA emissions models predict. So, in 11 some cases there are a few 50-year-old vessels out 12 there operating, and EPA might think in their models that these are around 23 years old. 13 14 So this is really important, because 15 the -- the overestimation of the anticipated benefits that have been achieved so far. So I think 16 17 it compels even a greater consideration about the 18 opportunity to attack some of these older marine 19 vessels operating in and around the waters of New 20 Jersey. 21 And if EPA's assumptions were correct, 22 we would be getting about eight tons per day, if 23 marine engines were replaced as quickly as they had 24 assumed, but that's not the case. 25 So that is one of the main emphasis of

1	today's commentary, which is the engines are older
2	than we thought, so doing work on them now will pay
3	big dividends in the years ahead.
4	The other opportunity that we have,
5	really, is to leverage the platform and the entire
б	infrastructure that we have for the workboats. And
7	this goes not just for workboats, but also transit
8	buses and all kinds of vehicles powered by diesel.
9	It's a huge advance for renewable biofuels.
10	And here the opportunity is a
11	substantial one that's, literally, overnight, from
12	the first fuel tank changeover from petroleum diesel
13	to renewable biofuels, we could lower greenhouse gas
14	emissions by up to 90 percent, using the close to
15	100 percent blend of renewable diesel, which is,
16	effectively, a drop in replacements fuel for
17	petroleum diesel. But regular biodiesel, up to 20
18	percent, can deliver substantial benefits as well
19	within the existing fleet.
20	So these are important near-term
21	options that the Council should be aware of. And
22	California's experience with these, as you know,
23	they have a Low Carbon Fuel Standard, which, today,
24	most of the compliance is coming from investments of
25	refiners and purchasing and introducing renewal

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diesel fuels into their diesel fuel pool. 1 2 And you can see from the most recent 3 chart that's available here today that renewable 4 diesel and biofuel used in California is delivering more CO2 benefits than all the electric vehicles 5 6 combined in the state, as of last year. 7 So, I just want to let that linger for 8 Because as we look to ways to deliver a second. 9 near-term benefits and leverage what we have today, 10 as well as have one foot forward for the future, 11 this is really an important opportunity that should not be overlooked. And I think it's one that 12 13 there's further consideration. And there is, like, 14 the Transportation Climate Initiative, as well as 15 the utilization in marine workboats. 16 Texas has had a particular amount of 17 activity and evaluation looking at replacements of the workboats down in the Ports of Houston and 18 19 Corpus Christi and others. 20 Their experience, they did five marine 21 repower projects, and here they replaced not only 22 the propulsion engines, but also the auxiliary 23 electric power generators. 24 They used four-and-a-half million 25 dollars of incentive funds and they got 388 tons of

1	NOx reduction. That's not a typo. That's 388 tons
2	of NOx reduction. So it is an enormous amount of
3	benefit for a very limited kind of investment.
4	And the Port of Corpus Christi had a
5	similar experience doing three repower projects that
6	involved ten propulsion engines, four auxiliaries,
7	and they delivered 86 tons of NOx reduction. You
8	can see the opportunities are substantial.
9	Looking at the experience with renewal
10	biofuels, just to add another perspective on that,
11	in the San Franciso Bay, the Enhydra fleet, the red
12	and white fleet, is transitioned to using renewable
13	fuels and saving 22,000 tons of greenhouse gas
14	emissions, according to the officials there, by
15	switching their entire fleet of ferries to this
16	renewable diesel. And you can see, using Greenhouse
17	Gas Equivalencies Calculator on the right, what
18	these benefits really translate into. So they are
19	enormous, just by converting the fuel source of
20	these few boats into using renewables.
21	So this is a, you know, recognition
22	that's growing throughout the industry, and they
23	received some awards for this in recent years.
24	This is a diesel electric hybrid and
25	has two new Tier 4 410-horsepower Cummins diesel

1	engines, with hybrid technology developed by BAE.
2	So the engines act more like generators to generate
3	electricity. And then those electric engines power
4	the propulsion system over the vessel.
5	There is an opportunity for
6	hybridization as well for some applications that
7	yield further greenhouse gas benefits.
8	There's some experience up in the
9	Great Lakes, where eight Lake Erie tugs built quite
10	a long time ago, and those, again, are not typos,
11	were replaced with four diesel-hybrid electrics.
12	And you can see the benefits there from replacing
13	these engines, and over 350 tons of greenhouse gas
14	eliminated. So the Ohio EPA and the Great Lakes
15	project there has also demonstrated some significant
16	experience with these investments.
17	There are dollars available. We are,
18	as you are, watching the funds available through the
19	Volkswagen Environmental Mitigation Trust. There
20	are 32 projects, currently, in nine states that are
21	working on marine vessel repower and replacement.
22	Again, all of these have dramatic
23	benefits and reductions for just a few projects, so,
24	quite a substantial benefit.
25	In Ohio, again, looking at their

1	experience here, comparing their expenditure of
2	Volkswagen settlement dollars, from ten commercial
3	vehicles, they received two-and-three-quarters tons
4	NOx mitigation. But from doing just four vessel
5	replacements, nearly 33 tons of NOx reduced.
6	So, you get a sense of the opportunity
7	to bring big benefits quickly.
8	Just to wrap up, I wanted to offer
9	just a few thoughts on a few other matters.
10	The Transportation Climate Initiative
11	I mentioned earlier, which right now, the state
12	appears to be only focused on electrification.
13	If that path continues, then you would
14	effectively leave on the table the opportunity to
15	get these immediate greenhouse gas reductions from
16	using renewable biodiesel fuels in favor of waiting
17	until electrification comes to a time and scale and
18	framework that's able to deliver comparable
19	benefits.
20	So we think, in listening to previous
21	presentations from Nicky just before, and others,
22	folks want benefits now. They want benefits now.
23	They also want a better future, of course, but we're
24	talking benefits now. We talk clean air now. And
25	the clean vehicle gets more clean air for the dollar

1 there. 2 The Port of New York and New Jersey 3 Truck Replacement Program has been quite a success, 4 and we were sorry to see that some of the funding 5 was lost through the loss of the natural gas 6 pipeline project. 7 But here again is an opportunity to 8 bring immediate benefits by getting folks to invest in the newest generation of trucks, which are 9 10 available today on dealer lots, and getting the 11 older drayage trucks out of the population as soon 12 as immediately possible. 13 And, finally, we support the state's 14 efforts. The New Jersey DEP has done leadership 15 work in this area to target tampering and enforcement against emissions controls violators. 16 17 Folks that remove diesel particulate filters or disable software devices on engines 18 19 really are doing the technology a disservice and, 20 obviously, a tremendous disservice to clean air and 21 public health. 22 We welcome opportunities to work with the Council, the New Jersey DEP to help bring those 23 24 folks to justice. 25 So I want to thank everyone for the

opportunity today. Diesel plays a key role in the 1 New Jersey economy. There are tremendous benefits 2 that can be had by upgrading and repowering marine 3 4 vessels with existing new clean diesel Tier 4 5 generation technology today, and we don't have to 6 wait five or ten years till infrastructure is 7 installed or permits are approved. 8 These things can happen right now. 9 We're not talking about the future. Although these will be big investments for the future. Because 10 from where we sit, we don't see any meaningful 11 12 replacements for diesel in the marine sector. 13 So an investment today in a new 14 generation vehicle, it's going to pay big benefits 15 for a long time. Thank you very much for the 16 17 opportunity, and I'd be happy to entertain any 18 questions that you might have. 19 CHAIRWOMAN CONNOLLY: Thank you, Any Council members have questions? 20 Allen. 21 CHAIRMAN VALERI: Yeah. It's John 22 Valeri. Thank you for that presentation. It was 23 very, very enlightening and, guite frankly, brings 24 up some very interesting immediate opportunities. 25 And you look at some of the

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1	conversions that you have in your examples, pretty
2	dramatic. And they happen now, and they seem
3	relatively affordable or, at least, have a big bang
4	for the buck.
5	I am curious, on the renewable diesel,
6	or biodiesel, are there costs, or costs or issues
7	associated with that that really would help drive
8	home getting that fuel spread more towards a wider
9	fleet of these types of heavy-duty vehicles and
10	barges, et cetera?
11	MR. SCHAEFFER: Absolutely. There is,
12	just to mention a project that's underway right now
13	in New York City where the Renewable Energy Group,
14	REG, is providing renewable diesel fuel to power the
15	New York City a good amount of their city service
16	vehicles.
17	So all the existing engines, whether
18	they're brand-new, the latest generation, or five or
19	ten years old, can all use this fuel. So they're
20	beginning a project now to use these renewable
21	diesel fuels in its place.
22	California, you know, has the
23	experience there with the mandate on low carbon
24	fuels. And I think the price, premium for this fuel
25	is varied, but it's very close to parity with

diesel, depending on the price right now. 1 2 So, there is -- and could be a premium 3 cost for this fuel, but considering other 4 alternatives and the benefits that can be achieved, 5 and most importantly the time in which they can be 6 achieved, from the time at which the barge arrives, 7 or the railcar arrives in the port and is offloaded 8 into the vessels, those benefits start being accrued 9 in that moment. We're not waiting five, ten, 15 10 years until things get built out, some new vessel 11 power system comes into play. People acquire that. 12 So there is likely to be a premium 13 cost on the fuel. But I would say, the supply of 14 that, folks are wanting to make that cost 15 competitive. And the experience, to date, is very 16 Manufacturers find these high-quality, good. 17 renewable, the higher blends, to work quite well in 18 all of their engines. 19 CHAIRMAN VALERI: Just as a follow-up, 20 you know, we do have at least one refinery in New 21 Jersey that's right near the Port of New York, New 22 Jersey. 23 Do we actually produce this to our 24 refineries? MR. SCHAEFFER: 25 That's correct. The

1	renewable diesel fuel, the difference between
2	biodiesel, sort of conventional biodiesel fuel,
3	which is made, primarily, from soybean waste
4	products, the renewable diesel fuel can be made from
5	a whole range of products, including the food waste,
6	but also biomass and other sources of the feedstock.
7	And, so, it goes through a very
8	conventional refinery like process to produce a
9	hydrocarbon drop and replacement kind of molecule.
10	And there are a growing number of these renewable
11	fuel refineries coming into play throughout the U.S.
12	I'm not aware at the moment of any on
13	the East Coast kind of area. Most are situated in
14	the Pacific Northwest and in California, as you're
15	aware there. But they also are situated near where
16	feedstock supplies are, which would be the west
17	agriculture, et cetera. But they can be, the fuel
18	can be barged and rail-carred into wherever it needs
19	it.
20	CHAIRMAN VALERI: Just, again, I don't
21	want to hog the time, but like, for example, an
22	existing refinery, like, pick one, could they just
23	simply produce it, or is there a large investment
24	that needs to be made in existing refineries to
25	actually start producing them?

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1 MR. SCHAEFFER: Yeah, I'm not a 2 refinery expert at that level. I would have to 3 provide some follow-up feedback to you on that. 4 CHAIRMAN VALERI: Okay. 5 MR. HANNA: John, it's Toby. I was 6 going to ask a similar question, so, if I can just 7 It does require different equipment piqqyback that. 8 and installation to a degree, John, but the idea is 9 that you got a lot of infrastructure at the existing 10 refineries (audio disruption) that you could produce 11 renewable diesel. 12 And the point I wanted to make, bring 13 up, is, is that another economic development 14 opportunity for the state that's in line with 15 renewable goals? 16 CHAIRMAN VALERI: Right. 17 MR. HANNA: Or, is it not? I mean it, 18 you know, seems to be replacing fossil fuels so That might be something we want to 19 maybe it is. 20 look into a little bit further, John. 21 CHAIRMAN VALERI: Yeah, that's right, I think that's something we didn't 22 Toby. 23 necessarily think of about as part of this, but it 24 may be something we want to follow up on. 25 MR. HANNA: Yeah. Seems like it's got

a couple upsides to it, from an environmental 1 2 standpoint, from a job standpoint, you know. 3 DR. BIELORY: This is Len. From the 4 health standpoint, I mean, just seeing those numbers 5 I would imagine it's a dramatic impact on pulmonary 6 diseases or, you know, specific disorders. 7 I think that's an important feature 8 that needs to be added. And I ask a very simple 9 question. I represent the public. I didn't know 10 about this. It's very low-lying. It's not very out 11 there. So that's something that needs to be --12 that's why we have a public hearing. But this was 13 very educational. Thank you very much. 14 MR. SCHAEFFER: Thank you. And I'll 15 provide some more information on the refinery. 16 DR. BIELORY: Thank you. And if you 17 have any health effects, you know, studies done, I would like to see that as well. 18 MR. SCHAEFFER: Will do. 19 Thank you 20 for the opportunity. 21 CHAIRWOMAN CONNOLLY: So our next He's the Senior Vice President 22 speaker, Jay Ruble. 23 and General Counsel, Maher Terminals, LLC. 24 Jay, are you there? 25 MR. RUBLE: I am.

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1	CHAIRWOMAN CONNOLLY: Great.
2	MR. RUBLE: One moment and I will get
3	my presentation up. Can everybody see that
4	presentation?
5	CHAIRMAN VALERI: Yes.
6	MR. RUBLE: So, thank you. My name is
7	Jay Ruble. I'm Senior Vice President with Maher
8	Terminals. I'm General Counsel for the company, but
9	I also wear a few different hats.
10	I oversee the company's safety and
11	security program, insurance and risk management, and
12	I also spearhead the company's sustainability
13	program, which is why I'm speaking with you this
14	morning.
15	Just as a quick orientation here, what
16	we're looking at is Maher's Terminal. You're
17	looking from the east side looking west. So if you
18	can see my little hand, there's Newark, there's the
19	airport.
20	But I do call your attention to the
21	bottom of this picture. There are these two orange
22	pieces of equipment. And Bethann Rooney talked a
23	little bit earlier this morning, she spoke about
24	straddle carriers, obviously name, because they move
25	the container by straddling over it, lifting it, and

1	moving it to the vessel, to the yard, to the
2	truckline, which is not in the picture.
3	But these are the workhorses of
4	Maher's operation, and they're going to constitute
5	quite a bit of my remarks this morning.
6	So I'd like to talk to you about what
7	Maher has done for sustainability and its emission
8	reductions, beginning in 2006. 2006 is a little bit
9	random.
10	The reason we selected 2006 is
11	because, again, as Bethann Rooney from the Port
12	Authority spoke to you this morning, the Port
13	Authority subscribed to the Paris Climate Agreement,
14	and its measurement period begins in 2006. So
15	during our discussions with the Port Authority, we
16	too then looked to 2006 as our measurement period in
17	sustainability and emissions reductions.
18	So from 2006 through the end of 2019,
19	Maher has reduced its diesel consumption, measured
20	on per-box basis, by 49 percent. So how did we do
21	that?
22	What we've done is, we have invested
23	significantly in new straddle carriers. We have
24	eliminated all of our Tier 1 straddle machines with
25	Tier 4 final. We have eliminated most of our Tier 2

1	straddles. And by the end of 2021, all Tier 2
2	straddles are scheduled to be out of service.
3	So we have a significantly upgraded
4	fleet, which has the Tier 4 final, are clearly much
5	cleaner, far more efficient, both on a GHG and a PM
6	basis.
7	One of the other things we've done is,
8	in 2006, a good percentage of Maher's containers,
9	somewhere between 40 and 50 percent, were moved with
10	diesel cranes. That percentage is now below one
11	percent. So almost everything that goes through
12	Maher's terminal handled by crane is done with
13	electric crane.
14	Another thing, those two are equipment
15	upgrades, but another more nuanced upgrade that we
16	have undertaken is that we have a terminal-operating
17	system that manages the location of all the
18	containers in Maher's yard.
19	So when a truck comes into Maher,
20	looking for a specific container, that
21	terminal-operating system is going to locate the
22	container in the yard, instantaneously, and assign
23	the truck a slot nearest to the container. Then,
24	the system, while that's going on, will also find
25	the nearest available straddle carrier through GPS,

1	which is a new feature we just turned on in the last
2	year. GPS will then allow the nearest straddle
3	carrier to be assigned to that container, minimizing
4	the drive from the straddle carrier to the target
5	container, and that container to the truckline.
б	That creates tremendous efficiencies.
7	It lowers the amount of diesel consumption,
8	obviously, on a per-box basis. Also, it minimizes
9	the truck time in the terminal. The trucker can get
10	in and out faster, reducing all sorts of emissions.
11	So it's a win for the terminal, we're
12	more efficient. It's a win for the trucker, because
13	the trucker gets in and out faster. And it's a win
14	for the local communities, because there are fewer
15	emissions.
16	I'll only just spend a second on
17	gasoline per box. The trendline is in a good
18	position. You can see from 2006 through the end of
19	2019 we've reduced 22 percent. This is in large
20	part due to fewer service vehicles in the yard, as
21	well as newer vehicles which are more efficient.
22	But gasoline is a very small component of Maher's
23	emissions profile.
24	So with Maher looking to figure out
25	how it's going to reduce it emissions and where it

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going to get the most value for its dollar, it's in 1 2 the diesels. It's in the diesel engine and that 3 equipment. 4 Next, I recognize there's a scope two. This is the utilities in the electric that Maher 5 6 uses on a per-container basis. You can see from 7 2006 to the end of 2019, Maher's electric has been 8 reduced 27 percent. So, well, how does that benefit 9 the port? 10 One of the things that Maher is 11 cognizant of and recognizes is that its entire 12 energy consumption has local effects. 13 So, Maher understands and recognizes 14 that if Maher can reduce its kilowatt hours, its 15 load, then, on days like today where the peakers are 16 running, Maher can shed load that may turn off the 17 peakers earlier. The peakers are in communities 18 that usually are adversely affected by emissions. 19 So Maher recognizes that if we can 20 reduce, do our part to reduce peaker triggering in 21 any one of the neighborhoods around the port, that's a win for the community as well. 22 So Maher is aware 23 of its electric usage. 24 And this decline is in large part 25 because Maher's electric cranes have been become far

1 more efficient. The new cranes are 25 percent more 2 efficient than the original electric cranes that we 3 bought around 2003. 4 In addition, Maher has undertaken 5 significant upgrades to its building, which I 6 believe was built in the 1960s, in terms of HVAC 7 controls, window film, insulation. 8 In addition, Maher does have a solar 9 array on its maintenance building generating 10 electricity. 11 So all of those, when you consolidate 12 the 2006 through 2019, and consolidated into tons, 13 CO2 equivalent, every year, Maher is eliminating 14 17,600 tCO2e. And you can see that then translated 15 into some of the different metrics which are far 16 more easier to digest in terms of miles driven, energy home useage, or gallons of oil consumed. 17 This is similar to the slide that 18 Allen just had in his GHG and its conversions. 19 20 So that's where Maher has been. Where 21 is Maher going? So Maher is now looking for the next five years, beginning at the onset of 2020 22 through the end of 2025. 23 24 And here is a table of initiatives 25 that Maher has identified. Items one through nine

have been board approved. They are in progress or 1 2 will be prior to the close of the year. 3 And I'm going to mix it up a little 4 bit and kind of deviate from some of the remarks I had to focus on one item, based on a question and 5 answer from one of our earlier panelists. And that 6 7 is this diesel gallon for the straddle carrier 8 radiation portal for rail. 9 And you can see, it's kind of the 10 least of all of these, so why would I identify this. And it's because this has additional benefits beyond 11 12 what Maher is measuring. 13 So what this is is that every 14 container coming from another country needs to be 15 scanned for radiation. This is a post-9/11 16 requirement by Customs and Border Protection. 17 So when a container leaves Maher's 18 facility by truck, the truck drives through a radiation portal monitor, and then advises whether 19 20 it needs secondary scanning. 21 For the rail, what was required was that a straddle carrier would need to take, or, 22 straddle carriers would need to take multiple 23 24 containers, hundreds, lay them out in very long 25 roads, and then wait for Customs and Border patrol

1	to bring their equipment to drive up and down those
2	roads to determine whether there was radiation that
3	needed secondary screening. And then once they
4	finished that, we needed to send the straddle
5	carriers back in, pick up all of those containers,
6	and then move them to the rail yard.
7	So, what we have now is this radiation
8	portal, which is similar to, like, an E-ZPass. The
9	straddle carrier takes a container that's bound for
10	the rail yard from our container yard, drives
11	through the portal, doesn't stop, takes it right to
12	the rail yard.
13	What this does is, it makes our rail
14	far more efficient, which then allows terminals like
15	Maher to go to different customers and say, look, we
16	have a very efficient rail product here, you can
17	move more containers through the port by way of this
18	rail.
19	In fact, we've demonstrated that a
20	container has come off one of these large ships, and
21	we've been enable to get it to Chicago, before the
22	ship has even sailed from Maher, because these ships
23	can be on berth up to 60 hours. That's an
24	incredibly efficient process.
25	So why is this important for us?

1	Well, because as Maher can grow volume to the rail,
2	that doesn't add any truck traffic to the roads and
3	it doesn't add any truck traffic for the emission
4	profile of the port. It's the greenest way to grow
5	your volume.
6	A few other items here that I would
7	just like to quickly highlight. Maher as 121
8	high-mast lights. We're looking to upgrade.
9	They're presently high pressure sodium. We're
10	looking to upgrade those to LED.
11	This item here is non-GHG, this water
12	management domestic oiling. Before our mechanics
13	can do repairs or maintenance on the diesel
14	equipment, they need to steam it. That steamed
15	water is then collected into barrels. Barrels are
16	then collected and transported off-site for
17	cleaning.
18	Maher is in the process of installing
19	its own water oily water separator, so no one will
20	need to come to the terminal to actually pick it up
21	and move it somewhere else. Maher will be able to
22	reuse the water, reducing its water consumption, and
23	also skim the petroleum.
24	So that is, while not a GHG Maher's
25	sustainability program is kind of examining all of

its resource usage, and there we can reduce our 1 2 water consumption. 3 One last thing here, in number 11, 4 when I've mentioned infrastructure upgrades, what 5 Maher is looking to do is improve some of its berth 6 structure and some of its terminal layout, and that 7 will require some structures to be constructed that 8 will move the container layout closer to the berth, 9 minimizing travel time, as well as making it closer 10 to the truckline, minimizing travel time. 11 All of those structures are 12 contemplated to have additional solar rays. I think 13 we have three designed, which is item ten, the 14 production of solar energy. 15 So what does that mean for the next 16 five years? Maher is projecting further reductions 17 of GHG of, about, over 7200 ton CO2 equivalent, as we're looking on its future initiatives. 18 19 So I've been speaking to you about 20 2006 to 2019, as well as 2020 to 2025. So, what are 21 we contemplating? What are our targets? What's our 22 qoal? 23 So, Maher is targeting a reduction of 24 60 percent carbon per box, as well as an 80 percent 25 reduction by 2050. Again, this is to align with the

Port Authority's goals and its stated intentions as 1 2 it is subscribing to the Paris Climate Agreement. 3 So, here we are. Measured in a carbon 4 per box, 2006 to 2019, Maher has reduced its carbon 5 per box by 43 percent at present, and you can see 6 Maher staying below the trendline to 2025, which 7 will allows us to achieve that 60 percent reduction 8 carbon per box handled by Maher. 9 In the bottom of the table, you can see what that translates to. It's .056 in 2006 to 10 11 .022 in 2025. And, again, for the translation, what that means is almost 25,000 tons CO2 equivalent per 12 13 year. And you can see the translation metrics on 14 the right-hand side. 15 So that's what Maher is looking to do 16 for its future programs. And before I move on to 17 one other item, I do want to touch on one thing, and that is that some of the discussions in Bethann's 18 19 talk this morning was looking at all electric 20 cargo-handling equipment. 21 And Maher has been working with its manufacturer, Calmar, to see if there's an 22 opportunity to develop a fully electric straddle 23 24 carrier. And we believe there is. We have the 25 design and the specific. Maher would be the first

1	terminal operator in North America to use an
2	electric straddle carrier.
3	And, so, Maher is going forward with
4	this. We put in a request for VW settlement funds
5	to DEP, to see if they could partner with us. We
б	think it's an exciting and important product. It
7	would really move the ball forward in the
8	electrification of a lot of the port equipment, and
9	it's a great opportunity that Maher is exploring.
10	So, again, I'm the head of Maher's
11	sustainability group, and so what I've just been
12	discussing with you the Maher's efforts and its
13	initiatives to reduce its GHG. But there's kind of
14	a more broad overarching sustainability program that
15	Maher has in place. With the few minutes I have
16	left, I'd just like to run through a couple items
17	with you about that program.
18	So Maher has and has had an existing
19	sustainability committee. This fall, we opened it
20	up to the entire company, just to see how many
21	people would be interested, expecting, I don't know,
22	maybe a half-dozen people to put their hand in the
23	air and volunteer, when, in fact, we had 77
24	employees out of 152 management employees.
25	So more than half of Maher's

1 management team volunteered to participate in the 2 sustainability committee. Obviously, that's a lot 3 of people. 4 We didn't want anyone to feel that 5 they were just one of, you know, 77. So rather than 6 have a sustainability committee, we created seven 7 subcommittees of 11 people, so that everyone has a meaningful voice, meaningful participation, and has 8 9 a chance to help Maher in its sustainability efforts 10 going forward. 11 CHAIRWOMAN CONNOLLY: Hey, Jay? I'm 12 giving you a three-minute warning. 13 MR. RUBLE: Very good. 14 One of the other items that I'll just 15 circle right here, these low-flow toilets, no touch, 16 so that item has current relevance. At first it was 17 a sustainability item, now it's no-touch timed 18 faucets, that seems it would be a best practice for when people return to the office in this COVID 19 20 environment. So sustainability now becomes a public 21 health component. Here are a couple of beautiful shots 22 23 of Maher's cranes lifting containers. These cranes 24 are designed to lift and move containers up to 65 25 So when the ropes, what we call wire ropes, tons.

1	what the rest of the world calls cable, reaches a
2	certain life, you know, when its useful life has
3	been met, what Maher would do is take the ropes off,
4	spool it up, and then sell it for scrap.
5	Maher has now partnered with Bridges
6	to Prosperity, which is a not for profit, which then
7	will take those cables to build bridges in rural
8	African communities. They're foot villages,
9	connecting different villages, towns, different work
10	areas. It's a great project.
11	Because of Maher's reputation in the
12	industry, we've been able to work with logistics
13	companies and shipping companies to minimize the
14	transportation costs to get this material to the
15	port it needs to get to in Africa.
16	And then let me conclude with one last
17	project here, the Maher's Terminal's reef. As I
18	described earlier, every container needs to be
19	scanned for radiation before it goes out. And then
20	certain containers are identified for secondary
21	scanning.
22	Customs and Border Patrol, their
23	equipment couldn't reach the ground, so Maher
24	designed 151 concrete platforms that weight 20 tons
25	each to lift the container off the ground and to

allow CBP's equipment to scan the contents. 1 2 Customs decided to move all of that 3 off-site, so now Maher as 151 concrete platforms, 4 20 tons each. 5 So what we have done is we've 6 partnered with the DEP's Fish and Wildlife, the wild 7 side, as they are self-described, and we've donated 8 those platforms as well as paid for the barging to 9 get them to a location you can see here, about two 10 miles east of the Point Pleasant, just off of the 11 Manasquan River Inlet. There, they're going to be deployed, 12 13 never dumped, they're deployed on the ocean floor to 14 create an artificial reef environment. Maher is 15 going to have a videographer, both topside and 16 divers below, so that we can get the growth of the 17 reef over time. And on the sportmen's and fishermen's charts, it will be the Maher Terminal's 18 Reef. And we're really thrilled to partner with the 19 20 DEP on that program as well. 21 And, with that, those are my remarks. CHAIRWOMAN CONNOLLY: 22 Great. Thank 23 I think we're going to skip the Council you, Jay. 24 question just so we can move on, so we get a lunch 25 break.

So Melissa Miles is our next speaker. 1 2 She's the Environmental Justice Manager for the 3 Ironbound Community Corporation. 4 Are you there, Melissa? 5 MS. MILES: Yes, I am. CHAIRWOMAN CONNOLLY: 6 Great. 7 Okay. All righty. MS. MILES: Can 8 you hear me? 9 CHAIRWOMAN CONNOLLY: Yes. Yes, I 10 think we can hear you. 11 MS. MILES: Okay. 12 CHAIRWOMAN CONNOLLY: You're fine, 13 yes. 14 MS. MILES: Of course, I'm before lunch, so, luckily, I'm a pretty fast presenter. 15 Ι 16 like to get to the point. So I won't hold everyone 17 up from your lunch. 18 Yes, so my presentation is going to focus on trucks, rail and warehouses to some extent. 19 20 I'm also thinking about cumulative impacts, like my 21 colleague, Nicky Sheats mentioned. He also gave the definition of cumulative impacts, how we're looking 22 23 at it in EJ communities. 24 And, so, also in our community, you 25 know, we look at logistics as a whole. You know, I

1	know that at times we may focus more so on trucks,
2	but, you know, what I intend to present upon is
3	that, you know, we are aware of larger impacts from
4	the logistics industry on our community.
5	As mentioned, I have been several
б	years with Ironbound Community Corporation as their
7	Environmental Justice manager. ICC is a member
8	group of the New Jersey Environmental Justice
9	Alliance, where I will be transitioning to at the
10	end of the week, actually.
11	I'm also the co-chair of EJ Act Air
12	Working Group, along with my colleague, Kim Gaddy.
13	And ICC is a steering committee member of the
14	Coalition for Healthy Ports.
15	So what I'll be presenting on is a
16	study that is poised to be released, so,
17	unfortunately, I won't be able to share all the
18	slides quite yet. But the study will be released in
19	entirety in about a month on the Newark community
20	transportation and electrification.
21	So, basically, what this is a
22	collaboration between the New Jersey Environmental
23	Justice Alliance, M.J. Bradley and Associates, and
24	was supported and facilitated by Natural Resources
25	Defense Council to evaluate the

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transportation-related pollution burden in 1 2 environmental justice communities, here, specifically, Newark and Elizabeth. 3 4 And we're looking at everything from 5 diesel trucks to light-duty vehicles, buses, and 6 other roadway traffic, as well as operation at rail 7 yards, ports and the Newark international airport. 8 The study also seeks to analyze 9 potential pathways, changes that address the 10 problem, including the electrification of trucks, 11 buses, light-duty vehicles and other high-emitting 12 sources. But for our intents and purposes, I'll be 13 focusing more on what we've identified as the 14 problem. 15 And, so, in this study, you know, this is the study area that you see on your screen. 16 So 17 the area inside the dark blue line is the study 18 area, but everything you see in the shaded blue line is part of the area of analysis. 19 20 So any kind of emissions being emitted, even in that kind of cloudy blue line, is 21 being accounted for in the study. 22 23 So in phase one there is a detailed 24 inventory of transportation emissions, which we'll 25 talk about, from both roadway and nonroadway

1 sources.

2	And then in phase two, there's
3	evaluation of transportation emissions, spacial
4	modeling that takes into account, you know, the heat
5	island effect and the heat maps of the relative
6	emissions exposures, which is important because, you
7	know, in addition, we're not just talking about
8	emissions, but we're also talking about exposure,
9	which is both, you know, emissions and the distance
10	that those emissions are traveling.
11	And, you know, what this report
12	ultimately shows is that exposure is also very
13	important. And, you know, the study will eventually
14	also include the spreadsheet tool. But we won't go
15	into that too much today.
16	So the emissions inventory, as we can
17	see, the inventory included baseline annual activity
18	data within the study area and focused on key
19	transportation sector emissions, so, NOx, PM2.5,
20	black carbon, which is a part of fine particulate
21	matter, and CO2.
22	So in the roadway vehicle traffic part
23	of the study, we're looking at light-duty vehicles,
24	buses, boats, New Jersey Transit buses and school
25	buses and medium- and heavy-duty trucks. And, then,

you can see there a map of the traffic volume, from 1 2 high to low, high being red and low being yellow. 3 And one thing I want us to remember, 4 that, in an area like Newark and Elizabeth, what's 5 considered low, and, in Newark, where I live and 6 work is going to be high in other areas. The low is 7 definitely relative. 8 And, then, for the nonroadway sources, 9 what's important about this is that we can notice, 10 you know, where the port is is the blue area. The 11 rail yards are the green areas. And you see that 12 there are several rail yards that are in the study 13 area. 14 And, then, we have the airport, which 15 is the purple area, and you can see all the 16 terminals there. And then the red dots are idling 17 hot spots, and folks from the DEP will be really familiar with those through the initiative that the 18 DEP conducted just this year to target trucks idling 19 20 in hot spot areas that were identified by Newark 21 community groups and the Newark Environmental Commission and City Hall of Newark. 22 23 So one thing that we continue on the 24 Coalition for Healthy Ports to uplift is that, you 25 know, we can't think of emissions impacts on, you

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1	know, even a county level, we won't really get the
2	kind of detail we need to be able to think about how
3	the communities closest to port infrastructure are
4	being impacted.
5	So, you know, there is a relative
6	impact. We are not all breathing the same air. The
7	people who live closest to roadways, the people who
8	live closest to the ports are being impacted in a
9	different way than those who live further away.
10	And, so, they looked at eight receptor
11	locations, and we'll look a little bit more closely
12	at two of them. Some of those receptor locations
13	are in the east ward, some are in the south ward of
14	Newark, but they're all, you know, sensitive spots,
15	because either they're surveying folks who are ill
16	or in need of treatment or children or seniors.
17	And, so, you know, we see an example
18	here. The receptor spikes are the green dots.
19	You know, this is just one example here of where we
20	see, you know, the breakout.
21	This one particular receptor site of
22	Ironbound Aquatic Center, which is relevant to the
23	Ironbound Community Corporation, because that's a
24	corner where we conduct annual truck counts.
25	So on that corner, we've counted

upwards of 70 trucks an hour at peak moments of the 1 2 And some of those trucks are on the ground, day. 3 but most of them are on 1 and 9. So, obviously, we 4 can't see all of them, but we have someone on the 5 second story of the Ironbound Aquatic Center, specifically just looking at 1 and 9 and how many 6 7 trucks pass. We also count train cars, because, you 8 know, there's the rail line there, too. 9 And so we see that, you know, the 10 average annual daily total, there are many more 11 light-duty vehicles traveling that roadway than there are medium- and heavy-duty vehicles or buses. 12 13 But if we look at the relative impact by source, we 14 can see that the medium- and heavy-duty vehicles are 15 really having a major impact in that area. 16 Now, that might not be true in every 17 community, but in a community like the ironbound that is surrounded by port-logistics infrastructure, 18 we see a much higher impact of medium and heavy-duty 19 20 vehicles emissions of the type that were mentioned. 21 In the phase two, there's an evaluation of transportation emissions, and I just 22 wanted to look at this slide so that we're clear 23 24 about what type of vehicles and equipment we're 25 talking about.

1	So for the on-road sources, for the
2	light-duty vehicles, we're talking about motor
3	vehicles, passenger cars and light-duty trucks.
4	Buses are NJ Transit buses, school buses and
5	intercity buses. And the medium- and heavy-duty
6	buses are single unit and combination trucks. And
7	this data all came from various sources.
8	So, you know, for New Jersey Transit
9	bus data, they actually looked at bus schedules and
10	timed it and multiplied that by the emissions of
11	each bus. Light-duty vehicle data is mainly coming
12	from the federal government.
13	And then we have nonroad sources for
14	the rail yard. We're looking at both switch and
15	line-haul locomotives. And we saw in the slides
16	that had, you know, the area of what kind of
17	facilities we were looking at.
18	There are several rail yards in the
19	site area. And so some of the rail yards that are
20	impacting the study area are ExpressRail Elizabeth,
21	ExpressRail Staten Island, South Kearny, and then
22	Sea Rail, Oak Island is impacting, you know, is
23	having a major impact, and then Trumbull.
24	And then for the port, we're looking
25	at cargo-handling equipment. That was mentioned

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quite often -- sorry, one minute. 1 2 Okay. Yeah, port-handling equipment, 3 commercial marine vehicles, heavy-duty diesel 4 vehicles, and then airports, ground-support 5 equipment and auxiliary power units. Okay, sorry, one minute. 6 7 (Discussion off the record.) 8 I'm one of those people at home with 9 kids. I did my best, trust me. 10 All right. So, right, those are the 11 kind of -- that's what we're looking at here. So this is what we're talking about, nearby emissions 12 13 versus local exposures. 14 So while nonroad emissions have a 15 significant impact on the overall community's 16 emissions exposure, vehicle emissions, particularly 17 those from medium- and heavy-duty vehicles, can have 18 a major impact on local exposure. So, you know, this kind of gives out 19 the idea about the light-duty vehicles are the 20 21 low-hanging fruit, you know, but in communities like Newark, it's really legislation and efforts to 22 reduce the emissions from medium- and heavy-duty 23 24 vehicles that will be most impactful. 25 So, looking at these two census tracts

1	here, one, we have Hawkins Street Elementary School,
2	and Newark Preschool Council. So most emissions
3	from this census tract block comes from residential
4	traffic, and highway emissions outside of the tract
5	block significantly influence exposure.
6	I'm sorry, one moment, please.
7	(Discussion off the record.)
8	MS. MILES: I guarantee you I've been
9	on this presentation since 9 a.m. and only when I
10	have to present does this happen.
11	So, right, emissions versus exposure.
12	What's important about this is that the communities
13	that are closest to roadways are being impacted by
14	emissions. But in a place like Newark, we have
15	various exposures from facilities that are up to a
16	mile away. And, so, when you're looking at NOx, you
17	know, you see on one side is the emissions, and the
18	other side exposure.
19	So while the medium- and heavy-duty
20	trucks, in gray, may have less emissions, they're
21	pretty much rivaling the light-duty vehicles in
22	terms of the impact of exposure to NOx.
23	And, you know, if we look all the way
24	across the chart at PM, at black carbon, when it
25	comes to exposure, the heavy-duty vehicles, you

1	know, are definitely rivaling the light-duty
2	vehicles. And for black carbon, they are
3	surpassing, you know, by far the light-duty vehicles
4	in terms of both emissions and exposures.
5	Then, something that was very
6	surprising to me in the Census Tract 6800, where I
7	actually used to live, I used to live in 6800, Block
8	3, and I recall being on this exact corner of Saint
9	Justine II preschool with both of my children in a
10	stroller counting trucks.
11	And on that corner, you know, it's not
12	the busiest truck corner, but there were definitely
13	upwards of 25 an hour, you know. And this is a
14	long we'll see a map a little bit later on of
15	South Street roadway in Newark.
16	You know, we were always under the
17	impression that the trucks were the major source of
18	emissions in that area. But if we see, it is
19	actually rail. This is something I could have never
20	guessed, that rail was having, you know, and rail
21	exposure was having such a major impact in that
22	area.
23	So another thing, you know,
24	particularly from Oak Island Rail Yard, and, now,
25	this data is not publicly available, you know. The

1 consultants really had to dig to find data on rail 2 yard emissions. And, so, you know, the question is, 3 why isn't data like this publicly available when 4 it's having such an impact on a low-income community 5 of color?

6 So this slide we've looked at before, 7 So I won't go too much into it. And this one, 8 again, is the one we were just looking at. We can 9 see some of the breakdowns of how many vehicles 10 we're looking at in terms of light and heavy duty, 11 buses, but really the major impact is from rail.

Okay. So, the key takeaways from this particular study are that the total emissions exposure and the relative impact of different sources varies significantly across the study area, and, of course, even more significantly across the county, right, or the region, which is the level at which many of the emissions inventory are done.

19 The highest burden is in location 20 close to port facilities and rail yards. And we do 21 consider, you know, rail yards as part of the logistic movement. We wouldn't have the number of 22 23 rail yards in the area if we were not so close to 24 the ports. The same thing holds true for 25 warehouses, which are often along high density truck 1 and bus routes.

2	Population centers in residential
3	areas are heavily impacted by on-road emissions. So
4	reducing emissions from medium- and heavy-duty
5	vehicles can significantly reduce air emissions
6	within the study area, as can the ongoing
7	electrification of passenger vehicles.
8	Nonroadway sources are responsible for
9	most PM and black carbon emissions in the study
10	area, while roadway vehicles produce more NOx and
11	CO2. So we can't regulate one and leave the other.
12	You know, as we're seeing, there are many sources of
13	emissions that are impacting the areas closest to
14	the port.
15	CHAIRWOMAN CONNOLLY: Melissa?
16	MS. MILES: Yes.
17	CHAIRWOMAN CONNOLLY: Just wanted to
18	give you the three-minute warning.
19	MS. MILES: Okay, great.
20	The impact of nonroadway emissions is
21	concentrated within one mile of each source, and in
22	many cases in the study area experience much lower
23	relative exposure to these types of sources.
24	So the point is that if you live near
25	it, it's impacting you, right.

1	And then, lastly, the emissions from
2	nonroad sources, particularly locomotive and marine
3	vessels, as was mentioned earlier, have the highest
4	air quality impact in the focus area.
5	And, so, if you've noticed, we haven't
6	talked so much about CO2. You know, in communities
7	like Newark, while we, you know, really respect the
8	need to eliminate and lower greenhouse gases, we are
9	immediately impacted by co-pollutants, and there
10	just isn't as much focus or regulation about
11	co-pollutants, so that's also where our focus often
12	lies.
13	And, so, for maximum benefit,
14	electrification of these sources, including, you
15	know, prioritization of electrification at
16	warehouses has to be accompanied by accelerated
17	transmission of electric-generating units away from
18	fossil fuels.
19	And that's also a very important
20	point, is that we tend to move in a direction away
21	from fossil fuels. We're not as interested in
22	cleaner fossil fuels, you know. We would like to
23	see our country and, really, our world move away
24	from, you know, the utilization of fossil fuels the
25	way it is, because of just the extraction harming so

1 many communities. 2 So I will stop there. If there are 3 questions, I'm happy to take them. 4 CHAIRWOMAN CONNOLLY: I think we have 5 like one minute for questions. Any of the Council 6 members have any questions? 7 DR. BIELORY: Yes, this is Len 8 Bielory, Dr. Bielory. 9 Based on your comment of fossil fuels, 10 what's your opinion of the previous presentation 11 regarding diesel and the incredible decrease? 12 What's your opinion of that? 13 MS. MILES: That it's a step. But we 14 tend to favor, rather than incremental steps, you 15 know, we just don't think incremental steps are 16 going to get us to types of reductions in CO2 and 17 co-pollutants that we need to save communities like 18 ours. 19 DR. BIELORY: Yeah. But note that 20 they have a dramatic decrease, almost zero. So, any 21 comments on that? I mean, I just have to 22 MS. MILES: 23 hold the line on that. You know, part of the reason 24 why there's been such a dramatic decrease is because 25 there are so many people screaming for an end to

fossil fuels. That would have never happened had 1 2 there not been so much pressure on the fossil fuel 3 industry. 4 DR. BIELORY: Agreed. Okay, thank 5 you. Thank you very much for your presentation. 6 MS. MILES: You're welcome, thank you. 7 CHAIRWOMAN CONNOLLY: Thank you. 8 Thank you, Melissa. You said the report will be 9 ready in a month, or the study will be ready in a 10 month? 11 MS. MILES: Yes. And I'll be happy to 12 share it with you all. 13 CHAIRWOMAN CONNOLLY: Thank you. 14 Okay, great. Thank you, Melissa. 15 We are going to try to stay on track, 16 so we're going to be back at 1 o'clock. We're going 17 to take a short break, lunch break right now, and we'll be back at 1 o'clock. And we're going to 18 19 start right at 1 o'clock so we can get to our 20 speakers. We still have quite a bit of speakers and 21 we have some public comments at the end, too, so, 22 thank you. 23 CHAIRMAN VALERI: Okay. 24 25 (LUNCH RECESS)

1 2 CHAIRWOMAN CONNOLLY: All right, 3 everyone, welcome back. 4 CO-CHAIRMAN EGENTON: That was the 5 quickest lunch I had in a while. 6 CHAIRMAN VALERI: That was a record 7 even for me. 8 CO-CHAIRMAN EGENTON: But we want to 9 stay on track. So, it is 1 o'clock, Madam Chair, if 10 you want to kick off to the next speaker. 11 CHAIRWOMAN CONNOLLY: Yes, thank you. 12 We have our next speaker, is Ryan Stege, if I'm 13 saying that correctly. He is the Director of 14 Locomotive Operations for Norfolk Southern 15 Corporation. 16 Are you there, Ryan? 17 MR. STEGER: I am. Can you hear me 18 okay? 19 Yep. CHAIRWOMAN CONNOLLY: 20 MR. STEGE: All right, great. Let me 21 get my presentation up here. 22 All right. Is this showing on 23 everyone's screen? 24 CHAIRWOMAN CONNOLLY: Yes. I can see 25 it.

1 MR. STEGE: All right, great. Well, 2 first off, thank you for having me. As you said, my 3 name is Ryan Stege. I am the Director of Locomotive 4 Operations and Maintenance for Norfolk Southern 5 Corporation. And we're going to focus today on fuel 6 7 That's one of our biggest sources, obviously, burn. 8 as a railroad, and I wanted to talk through some of 9 the technologies and places we've seen and where we're going with reducing locomotive fuel burn, and 10 11 therefore, emissions, and all the things we do to 12 operate a railroad. 13 First off, just a quick history and 14 current status in New Jersey for Norfolk Southern. 15 Our economic impact is shown up there, about 12 16 million in payroll for the New Jersey employees that 17 we have, about eight million in infrastructure and facility investments that Norfolk Southern has, and 18 19 then about 85 million in purchases, payments and 20 taxes there in the state. 21 Through the blue bar there, focusing on the traffic that we haul within the State of New 22 23 Jersey, most of it is intermodal traffic, which is a 24 good news story, because that's containers and 25 freight of the sort that's easily transported via

1	truck. And, as we're going to show you, certainly
2	rail is a much better infrastructure to use for
3	moving those things efficiently, and at the lowest
4	possible emissions rate that you can get. So we'll
5	talk a little bit about that.
6	So why am I focusing on fuel? Well,
7	first off, for a railroad, fuel is, at least for
8	Norfolk Southern, our second largest expense. It's
9	right behind maintaining the people, the employees.
10	Fuel is that biggest expense beyond that T and E
11	expense.
12	In 2019, in fact, Norfolk Southern
13	used 450 million gallons of diesel fuel, so,
14	certainly quite a large amount of diesel. Why so
15	much?
16	Well, if you look at what we're using
17	to operate with, our road locomotives typically make
18	4300 to 4400 horsepower. The example I have here is
19	an SD70ACe locomotive. It is an 11,360-cubic-inch
20	or 186-liter diesel engine, so, not small equipment.
21	One of these weighs about 220 tons, or
22	over 440,000 pounds. They burn, at idle, they burn
23	about four gallons of diesel. But these locomotives
24	really take into account or really take advantage of
25	economies of scale.

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1	A typical road train can be over two
2	miles long and can weigh over 15,000 tons that's
3	being hauled by these locations. But this is not
4	all bad news, for sure. Because of economies of
5	scale, railroads come in at one of the most
б	efficient and least-emitting means of
7	transportation.
8	So when you look here, trucking for
9	freight transportation accounts for about 6.4
10	percent of greenhouse emissions. And, in
11	comparison, railroads, compared to all
12	transportation, is only .6 percent of the greenhouse
13	gas emissions.
14	But what's amazing, at that low
15	percentage of greenhouse gas emissions, is that
16	freight rail is moving 40 percent of the freight ton
17	miles in the United States each year. But out of
18	total freight emissions is only eight percent of the
19	emissions. Just shows the economies of scale that
20	railroads have, and really where the big opportunity
21	is to continue, and I've heard some of presenters
22	say it throughout the morning, to continue to move
23	more off of the highways and onto the railways.
24	One interesting fact there, when you
25	look at that average, by taking that freight to rail

1	instead of truck, on a carload basis, for the
2	railroad we speak of carloads, you can save up to a
3	thousand gallons of fuel per carload; so, certainly
4	big opportunities there.
5	So, specifically looking at NS, our
б	total scope one and two air emissions for last year
7	was just under about five million metric tons. This
8	is the lowest annual total since we began
9	calculating our emissions in 2009.
10	Our emissions intensity target has
11	improved by over 13 percent during this time frame.
12	Rail has, on average, 75 percent less emissions than
13	truck. So our customers avoided around 15 million
14	tons of emissions last year by choosing rail over
15	truck.
16	So, now I'd like to get into kind of
17	our path forward, how we've gotten where we are now
18	to be one of the most efficient means of
19	transportation, and how we're going to improve on
20	than further with various technologies we're using,
21	and most of these are locomotive technologies.
22	So we're going to talk about how we
23	maintain and make sure we keep the most efficient
24	locomotive fleet size. We'll talk about some of our
25	energy management technologies, some operating

practices and technologies, such as horsepower per 1 2 ton, and distributed power. 3 So, first off, talk a little bit about 4 fleet reduction. Norfolk Southern, in particular, 5 is on a path to really rationalize our locomotive 6 fleet down. This provides a couple different benefits. 7 8 But, first off, when you use the 9 equipment more efficiently and your asset 10 utilization is higher, you end up, obviously, idling 11 locomotives less, you burn less fuel, because you're using them for only the work they're developed to 12 13 do, not wasting the asset, so to speak. 14 So since the end of 2018, we had about 15 3,515 active locomotives operating, and here at the 16 end of the first quarter we were down to 2,801, with 17 703 identified for sale. We've actually reduced even further 18 since then, with only about 150 of those 703 left to 19 20 sell. So Norfolk Southern is making great strides on where we're going. Total, this was a fleet 21 reduction of about 22 percent. 22 23 Not having the locomotives sitting 24 around leads to less yard congestion, and, really, 25 we keep the newest, least-emitting, the most

efficient locomotives in the fleet, and we get all 1 2 those benefits from that. 3 It also helps us on our maintenance 4 side of things. When we look across the unique number of locomotive models we have, this is split 5 6 into our line-haul or road fleet, and our yard and local, or switching fleet, and you can see how many 7 8 different models were out there. 9 Our fleet management has led to a 10 reduction in our oldest, our legacy locomotive 11 models. We have eliminated older legacy models, such as our SD60s, SD60I's, -8's, SD60M's, and 12 13 MP15E's, and many others. 14 So, great advantages here, it's less 15 parts we have to stock, and we are keeping the 16 newest, highest tier-rated locomotives operating on 17 the railroad. 18 Going onto the next technology, 19 that's our energy management systems. There are two 20 energy management systems out there in the rail 21 industry. One is called LEADER, the other one is 22 called Trip Optimizer. These are two operating 23 screens here. Trip Optimizer is on the left, LEADER 24 is on the right. This is kind of like cruise 25 control, but even more advanced.

1	So the systems will actually consider
2	your train length and weight, and also the
3	topography and where you're operating the train.
4	Then it will make calculations to find the optimal
5	run regarding fuel burn and train schedule. And we
6	even refer to that in the industry as the golden
7	run. So it uses train momentum to climb hills.
8	Many times it will end up cresting hills at speeds
9	much lower than track speed, but we take that hit to
10	maximize fuel savings and minimize emissions.
11	If you think about your vehicle, many
12	modern vehicles today kind of have that an economy
13	scale or a graph that you can display in the
14	dashboard of your vehicle. And think about what
15	happens if you're going down that highway speed and
16	you try to accelerate, or if you hit the accelerator
17	more up a hill, or you accelerate hard from a stop.
18	Well, the exact same thing happens
19	with train operations. If you try to accelerate
20	hard up a hill or you accelerate from a stop, that's
21	when your fuel economy is the worst. And the Trip
22	Optimizer and LEADER systems, our energy management
23	systems, take control of the train to avoid those
24	worst-case scenarios.
25	Just like in your personal vehicle,

1	you would avoid accelerating up hills, or
2	accelerating hard from a stop, if you were trying to
3	be conscious of our fuel economy, and these systems
4	do the same thing automatically for train
5	operations; really, a great technology.
б	The next one is horsepower per ton, or
7	you'll hear us refer to it as HPT. Horsepower per
8	ton is an operating practice in technology that
9	prevents, really, overpowering of trains. It
10	literally sets the amount of horsepower that can be
11	used to pull a set tonnage.
12	It's based on the reality that one
13	unit operating at a higher throttle notch reduces
14	your fuel burn, and reduces emissions compared to
15	few locomotives at a lower throttle notch. It's
16	really about, how many diesel engines do you have
17	online?
18	HPT technology has the unique ability
19	to provide just the horsepower needed to pull a
20	given train. It's like setting your vehicle or
21	truck to just the horsepower you need, no more.
22	It's really a large fuel and greenhouse gas
23	emissions and general savings benefit. This has
24	really worked out well for putting the right power
25	on the right trains.

The next one is almost an extension 1 2 or piece of horsepower per ton. Throttle limiting 3 is kind of that next step. It leverages our HPT 4 settings further. So not only do you limit the 5 horsepower that you're going to have online for any 6 given train, but you're also going to now limit the 7 throttles, the throttle notches you would use based 8 on speed. 9 So this is based on the principle that 10 at higher speeds you're going to have greater air 11 resistance and higher fuel consumption. So just like in your highway vehicle, 12 there's a speed where your vehicle is most 13 14 efficient. And when you speed or go higher than 15 that speed, you will see a detriment effect to your 16 fuel economy. Further acceleration beyond that 17 speed has a disproportionate negative effect on 18 emissions and fuel consumption. 19 So throttle limiting sets a maximum 20 throttle setting at a certain speed to prevent 21 operation behind, or beyond that set throttle notch, once the efficient speed is met. 22 23 So within NS, you will hear us say 24 "five and 50." Once we reach 50 miles an hour, we 25 don't let the operator or the system operate from

above notch five. That operation is prohibited, and 1 2 it saves fuel. Notching up above notch five, once 3 you reach that speed, you're really just burning 4 fuel to fight the wind resistance at that point, and 5 we avoid that through our operating practices and 6 throttle limit it. 7 The next one I was going to talk about 8 is distributed power. This one is really exciting 9 and almost as advanced, or very much a part of 10 energy management as well. 11 Distributed power reduces the other 12 resistances in train operations to maximize fuel and emissions savings. So what we do is we 13 14 strategically distribute the locomotive power 15 throughout the train, not just on the head end. When we do this, it reduces in-train 16 17 forces and, therefore, the rolling resistance of the 18 train itself operating across the track. So this technology is proven to 19 20 increase the tonnage capacity of a given locomotive, 21 meaning that less fuel is consumed per ton of freight hauled on a DP, or distributed-power 22 equipped train. 23 24 This technology is also layered with 25 our energy management I mentioned earlier. The

1 energy management technologies can control all 2 locomotives in the train from the head end, making 3 the most efficient use of distributed power. So it 4 can actually call for the remote consist to load at 5 a different throttle notch based on the topography 6 and what it needs.

7 With part of the train, with the 8 length of train, part of it could be, some of it 9 could be coming uphill, and this system, using 10 energy management and distributed power, can 11 actually have the different consist within the 12 train, loading at different values to match the 13 terrain of the territory.

14 Really, DP, when we operate trains 15 with DP, they require fewer locomotives to operate longer and heavier trains, which translates directly 16 17 to reduced fuel consumption and reduced emissions. Really, this has been a great 18 technology for the rail industry, and we continue to 19 20 deploy it on more and more locomotives, as well as 21 the other ones I've mentioned before. We're actively adding these technologies to our locomotive 22 23 fleet. 24 So what have these technologies done

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for us so far? Well, when you lock at the freight

1	rail fuel efficiency, we as an industry, measure ton
2	miles per gallon burned. So as you can see here,
3	over time, we've continued to see the industry get
4	better and better.
5	At NS, we've been tracking our
б	locomotive fuel efficiency since 1987. By 2015, we
7	had made a 20 percent improvement in the amount
8	hauled per gallon burned, our fuel efficiency.
9	We've challenged ourselves to improve
10	by an additional almost nine percent over a
11	five-year period since 2015, and we feel we're going
12	to meet that goal this year. And, really, that's
13	going to be a huge accomplishment, considering the
14	headwinds we have faced with lower rail volumes.
15	But we continue to make efforts in
16	this, and we will continue to do so in the future as
17	we track things such as our auto miles, meaning the
18	miles that we operate, the percentage of the miles
19	we operate with energy management controls online,
20	as well as we are exponentially increasing the
21	number of distributed power trains we run.
22	And we're always evaluating our HPT
23	rules and throttle limiting to make sure we're
24	maximizing our savings in both fuel usage and
25	reduced emissions.

1 So I appreciate the time of the 2 Council this afternoon, and I'm happy to answer any 3 questions that I can. 4 CHAIRWOMAN CONNOLLY: Great, Ryan. 5 Thank you so much. Do any Council members have any 6 questions? 7 CO-CHAIRMAN EGENTON: Yeah, Maria, 8 this is Mike Egenton. 9 CHAIRWOMAN CONNOLLY: Yes. 10 CO-CHAIRMAN EGENTON: And I'd like to 11 ask Ryan a quick one. 12 Ryan, thank you, again, for 13 participating today, a lot of good information. 14 I wanted to ask you something that 15 came up earlier in the Council hearing about, during 16 COVID-19, there was a lot of activity that shifted 17 and we saw a lot of the FedEx and UPS drivers, you 18 know, delivering packages at home? 19 What impact through the pandemic, and 20 I know you're nationwide, have you seen your rail 21 system, you know, be impacted by the pandemic, if you can share that with us? 22 MR. STEGE: So we have seen, 23 24 certainly, volumes have been impacted. Most heavily 25 impacted have been the industrial type volumes.

1	As you know, the auto plants and those
2	sort of things shut down for a good amount of time
3	during the pandemic. So that traffic all but
4	disappeared during that time.
5	We did see and we have seen intermodal
6	continue, as you mentioned, with packages and those
7	sort of things. We have seen some parts of that
8	business maintain or even grow. But as a whole,
9	overall, we've seen volumes down about 20 percent,
10	at least.
11	CO-CHAIRMAN EGENTON: Thank you.
12	CHAIRMAN VALERI: Yes, just a question
13	from my end, it's John Valeri.
14	We had a presentation earlier about
15	the use of renewable diesel, I guess it was called.
16	And I'm curious whether the engines that are
17	utilized by Norfolk Southern or others are capable
18	of using that. And if they are, are they using
19	them?
20	MR. STEGE: They are capable and they
21	are using them in certain places. When we fuel, for
22	instance, in the State of Illinois, Norfolk Southern
23	does use renewable or biodiesel, a blend of
24	biodiesel in the State of Illinois, and mainly out
25	of Chicago, is where most of that traffic comes

But it is not in all states. 1 from. 2 A lot of it is depending on the 3 infrastructure and where it's available, and, quite 4 honestly, some of the tax advantages and stuff that 5 those things provide. But we do have it on the system and we do use it in some places. 6 7 CHAIRMAN VALERI: I'm just curious, 8 I'm assuming in the Northeast, and particularly in 9 New Jersey, that's not as available because it's, 10 generally, generated by farm by-product? 11 MR. STEGE: Yes, sir, that's correct. 12 CHAIRMAN VALERI: Okay. 13 But the engines can handle MR. STEGE: 14 it and we do burn it in the engines in some places. 15 CHAIRMAN VALERI: Okay. 16 CHAIRWOMAN CONNOLLY: Okay, thank you. 17 Thank you, Ryan. 18 MR. STEGE: Thank you all. 19 CHAIRMAN VALERI: Thank you. 20 CHAIRWOMAN CONNOLLY: Our next speaker 21 is Amy Goldsmith, who is taking the place of Kim 22 Amy is New Jersey State Director for Clean Gaddy. Water Action and Clean Water Fund. 23 24 Amy, are you with us? 25 MS. GOLDSMITH: Yes, I am.

CHAIRWOMAN CONNOLLY: 1 Hello. 2 MS. GOLDSMITH: You have a PowerPoint 3 that you'll be putting up? If you could do that, 4 that would be great. 5 CHAIRWOMAN CONNOLLY: Heidi is going 6 to be doing that. 7 MS. GOLDSMITH: That's fine. T'm 8 sorry that Kim was not be able to join. She had a 9 family emergency. And we're also in the throws of a 10 very important bill at the statehouse, so it's kind 11 of a wild and crazy day. But she has to be with her 12 brother, who is not well. 13 CHAIRWOMAN CONNOLLY: Can you see it 14 on the screen, or no? 15 MS. GOLDSMITH: No. 16 (Whereupon, discussion was held off 17 the record.) 18 MS. GOLDSMITH: There you go. 19 MS. JONES: Okay. 20 MS. GOLDSMITH: And I'll just let you 21 know when to go to the next page. 22 MS. JONES: Yeah. 23 MS. GOLDSMITH: Okay, great. 24 So I'm not Kim Gaddy. Kim Gaddy is 25 our Environmental Justice Organizer. She lives in

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1	the City of Newark, in the South Ward of Newark.
2	She is in a port-impacted neighborhood, and she also
3	sits as Vice Chair of the Environmental Justice
4	Advisory Council to DEP.
5	I myself was a founding chair of the
б	Coalition for Healthy Ports, which was founded in
7	2007, and I'm the State Director for Clean Water
8	Action and Clean Water Fund. Next slide, or next
9	page. Are you able to do that? Okay, great.
10	So, I mean, you've been hearing a
11	number of presentations, so I'm not going to spend a
12	lot of time. We know that goods movement is not
13	just a truck, it's not just a warehouse. It's a
14	line, I guess you could even start before the ship,
15	which is the production of the product, right. So,
16	from ship to port to warehouse or truck or rail
17	fulfillment centers, and that last mile, delivery.
18	So we at Clean Water Action, the
19	Coalition for Health Ports, are concerned about all
20	different parts of this logistics industry. And
21	every step of the way there's diesel being used in
22	one way or another.
23	So we have the heavy trucks, the
24	constant idling, the harmful emissions, and very
25	often calling upon, you know, warehouse workers or

1	drivers to be the ones who bear the health burdens,
2	but, also, the cost of the remedy, like buying a
3	clean truck, when a driver makes \$28,000 a year and
4	can't possibly buy a new diesel, no less the new
5	electric truck at that rice. Next.
6	So the Coalition for Healthy Ports has
7	not been fighting the growth of the port, but has
8	been fighting for clean air, healthy communities and
9	good jobs, and doing it in a way that's mindful of
10	environmental justice. And, so, that's really our
11	emission.
12	So some people have thought, oh, you
13	just don't want the port to exist. No, that's not
14	our position. I just want to make that clear
15	up-front. And I'm sure maybe Nicky or Melissa has
16	expressed that as well, but I just wanted to make
17	sure it was emphasized as well. Next, please.
18	So at Ports Newark and Elizabeth we
19	have given many, many environmental justice tours,
20	sometimes inside the fence, but more often than not
21	outside the fence of the port. And in the port,
22	adjacent communities in the south wards, in the
23	ironbound, and diesel particulates and black carbon
24	are the main things that we are most concerned
25	about.

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And we do care about greenhouse gas 1 2 gases, but as Melissa articulated, it's the black 3 carbon, the diesel particulates that have the 4 greatest health impacts on asthma, lung, you know, 5 heart disease. And this is a quote from Kim Gaddy, 6 from her own neighborhood in which she lives in the 7 South Ward, that she has to breathe this in every 8 day, no matter where she is, in her home, in her 9 schools, in her parks. 10 And, so, the issue, you know, is 11 And you saw from Melissa, for that map and large. 12 study area, we've also put out other reports, 2017, 13 which I can make available, on what was the impact 14 of rolling back the truck ban or truck phaseout 15 program that would have prevented any pre-2007 16 engine truck from going into the port after January 17 2017. And by not having that go into effect, 18 it's going to take 15 years for us to get to where 19 20 we could have gotten, starting January 1, 2017, if 21 those trucks had been banned. So, next slide. 22 (Discussion held off the record.) 23 So, again, I wanted to focus more on 24 black carbon and diesel and also make the connection 25 to climate change. Black carbon is a short-lived

pollutant, much shorter lived in the atmosphere than 1 2 CO2, but it is many, many times more potent as a 3 warming agent. 4 So, you know, its impact is in our 5 lungs and in other ways, but it is also responsible 6 for glacial and ice melts. It's responsible for 7 rising temperatures, and especially the heat island effect. And the combination of the black carbon, 8 9 the hotter temperatures causes a number of health 10 impacts, and this is an environmental and climate 11 injustice, and it has a combining effect. 12 And then you put COVID on top of that, 13 which may or may not have been mentioned in other 14 instances, where people who have, you know, 15 compromised systems because of poor air quality, 16 COVID has, you know, a much greater impact either by 17 getting, you know, more extreme, you know, cases 18 from COVID or more deaths. So it's just compounding that cumulative impact of all these pollutants, and 19 20 then the compounding impacts of the results on our 21 lives. Next. If you can move forward, that would 22 be great. 23 So we're looking for both 24 accountability in the community, as well as 25 strategies for achieving, you know, truly clean air.

1	And you can't sort of do one without the other.
2	And so, one, is to ensure that
3	everyone, including residents, not just local
4	officials, you know, have a place at the table, have
5	a voice in setting the standards in decision-making,
6	in talking about expansion. What kind of expansion
7	do we want, again, not just at the port, but in all
8	the other pieces of goods movement that happen in
9	and out of the port and in the neighborhoods.
10	You know, most of your goods in the
11	Port Newark, New Jersey area stay very close. 75
12	percent of the goods stay close. We're not like
13	other ports where, you know, you put it on a rail
14	and you take it out to Kansas. That's not the kind
15	of port we are. And, so, these trucks are staying
16	closer and closer.
17	In fact, the warehouses are coming
18	closer and closer, and that means those trucks are
19	ping-ponging back and forth closer and closer. That
20	means the pollution is intensifying in the
21	port-adjacent communities.
22	And, so, we need accountability in the
23	community, but we also need to modernize the goods
24	movement. So we need to, you know, ban and scrap
25	the highly polluting trucks.

1	And one of the mechanisms that was
2	going to be employed in 2017 was in use of the
3	tariff agreement, and we have pressed upon the Port
4	Authority to use the tariff agreement. It's an
5	annual agreement, so that they can, you know, modify
6	it on a regular basis. It's to speed up the banning
7	of the trucks.
8	Right now you can still have a 1997, I
9	believe, truck go into the gate. That is a really
10	old truck, with many, many miles on it. And then
11	the other is to move towards electrification.
12	In the past, Coalition for Healthy
13	Ports, you know, advocated for retrofitting and
14	using 2007 or 2011 or better engines in diesel
15	engines, and they do, you know, have a benefit.
16	But, now, with the movement and
17	advancement of electrification of trucks and proven
18	technologies, we want to jump to electrification,
19	and, you know, and put all of our dollars and
20	resources into electrifying fleets and equipment
21	faster, rather than moving to what is, really, an
22	oxymoron, cleaner diesel.
23	We know that we can't do it in every
24	single instance, but the technology is moving so
25	fast that we believe now is the time to make that

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investment in the infrastructure and in the money in 1 trucks. Next, please. 2 3 So one of the things that we are 4 seeking is zero emissions zones and corridors. We 5 want incentives and mandates in parts of the port 6 and parts of the corridors that go to the warehouses 7 to mandate that the warehouses be electrified, that the trucks be electrified, so that as they are 8 9 moving closer and closer to the ports, we actually are using electrified trucks in those corridors. 10 11 And, again, to incentivize those, we 12 know that the port and the terminal operators have 13 been doing more electrification. We know that they 14 have plug-in refrigerator units when the truck, you 15 know, when the container, refrigerator containers 16 are not on a truck. And that's a great things. 17 We know that they've been moving 18 towards electrification in a variety of ways, but it's not enough and it's not fast enough. 19 20 The reality is the trucks are what go 21 through the neighborhoods. And the refrigerator 22 units, if they're diesel powered, they're some of 23 the dirtiest units. And we know longshoremen and 24 women who work with those reefer units, and they're 25 really dirty, and they get sick from them.

I know I've done some work and done 1 2 some monitoring and spent a day at the port, and was 3 so sick at the end of the day, I just can't imagine 4 working in it, day in and day out. We do know that there are some 5 6 longshore people who, you know, retire, and soon 7 after they have heart attacks or other things, health, you know, issues. Can't say all of it's 8 9 work related, but I would put, you know, a pretty 10 good bet that a lot of it is work related; so, 11 creating these zones and incentives, especially 12 where there's hot spots and high concentrations of 13 activity. 14 This, by the way, are people walking 15 near Weequahic Park in the South Ward. Next slide, 16 please. 17 So, to do zero-emission zones and to also do some other things, you know, California 18 19 adopted its Advanced Clean Trucks rule. It's 20 similar to the recent Electric Vehicle Law that we 21 just passed here in New Jersey the and clean car 22 legislation that we did probably 15 years ago, you 23 know, to move from gas to hybrid. Now we want to 24 move from hybrid to zero emissions, to electrify. 25 And, so, this is a place where New

Jersey can step up, as it has in the past, and it's 1 2 a schedule for moving towards zero-emission 3 vehicles, and it's a sale requirement, so the people 4 who sell the trucks over a series of years would 5 keep increasing the sale of more and more 6 zero-emission vehicles. 7 And, also, California has a reporting system for fleet owner purchases so that they can 8 9 get a handle on that. That's a one-time reporting 10 requirement. 11 There is a two-year delay, you know, 12 from adoption to implementation, and there is a 13 prescribed schedule. And we do know that this is 14 something that the DEP is interested in pursuing, 15 and we would like them to pursue it. Next slide. 16 So this is just a little bit of the 17 detail of it, and there's a link that shows you the 18 actual chart. So I wasn't going to go into all the 19 detail of it, but you must, you know, produce and 20 sell certain number of vehicles, and it goes up to 21 certain percentages. And we're talking about class two to class eight each having their own sort of 22 different credit that you get, depending on what 23 24 type of vehicle you're selling. Next slide. 25 So here it explains just a little bit

1	better. If you have a bigger, heavier, you know,
2	diesel vehicle that you're switching to, a ZEV, you
3	know, you get more credits, twice as many credits as
4	a lower class one, or a lighter duty not lighter,
5	but, you know, medium-duty truck. And then there's
б	also partial credits for hybrids.
7	So, a number of different ways in
8	which you can get to your percentages over time. We
9	want New Jersey to embrace this. It has the power
10	to do it now that California has adopted this rule.
11	Next slide.
12	NESCAUM is a eight-state conglomerate,
13	I don't know the right word to use for that, but
14	they have strongly and publicly expressed support
15	for the California Act rule, and there are a number
16	of reasons for it. It's the right thing to do, but,
17	also, because the Northeast has recently sort of
18	plateaued around its smog reductions for the past
19	ten years, and, also, we're still seeing exceedences
20	in ozone, even with COVID, even with less cars on
21	the road and less light-duty vehicles on the road
22	that the trucks have not slowed down.
23	In fact, there's probably, you know,
24	more trucks and more deliveries happening during
25	COVID, and that's a problem. We know the port

1	really has not, really, had any stoppage.
2	Obviously, there's been some ships that have not
3	come in, but for the most part they've been running,
4	you know, full operations over there.
5	CHAIRWOMAN CONNOLLY: Amy?
6	(Audio disruption.)
7	MS. GOLDSMITH: And we know that with
8	TCI and RGGI and a number of other funding
9	mechanics, by working together, and as a region to
10	reduce, you know, and improve air quality, we would
11	be in a better place, overall, and be more effective
12	in, you know, moving the needle in the right
13	direction.
14	CHAIRWOMAN CONNOLLY: Amy, I'm just
15	giving you a three-minute warning.
16	MS. GOLDSMITH: Next. Yeah.
17	CHAIRWOMAN CONNOLLY: Three-minute
18	warning.
19	MS. GOLDSMITH: Yep. I got it. Thank
20	you.
21	So what are some ways that New Jersey
22	can regulate and mandate clean air? I discussed
23	zero-emission zones in corridors. I talked about
24	the tariff agreement, where that's a mechanism where
25	the Port Authority could require the phaseout faster

1 of the dirty diesel trucks.

-	of the arrey areber tracks.
2	I didn't hear Nicky's presentation,
3	but I believe he was going to talk about indirect
4	source review, which I didn't really talk about
5	here, but to treat the port as a stationary source
6	and to regulate port emissions in that way would be
7	something that we believe the DEP should actively
8	consider. I just talked about adopting the
9	California Act rule.
10	Something else that, the DEP has been
11	charged by the governor, when he signed the Global
12	Warming Response Act, was to adopt a black carbon
13	rule. We anticipate, we know that COVID has sort of
14	gotten things a little off the rails, but I think
15	the schedule is to work towards adoption by next
16	year. Regulating black carbon would be very
17	significant in moving the needle towards clean air.
18	The state is out of compliance for
19	ozone, is delaying its state implementation plan to
20	move that along.
21	The state, you know, should consider
22	ways in which it could achieve mandatory emission
23	reductions in EJ communities. There is a bill being
24	considered today that is not specific to the ports,
25	but to the Title V emissions.

But could there be some mechanisms to 1 2 mandate emission reductions in EJ communities, 3 because of the disproportionate harm that they 4 experience? And the other is for the state 5 6 contracts, as it's done in construction in the past, 7 to continue to require upgrades in diesel equipment and electrification when there are state contracts 8 9 being awarded. Next slide. I think that's the end 10 of my... is there -- there's a next slide, and then 11 I'm done. So, to kind of come full circle about 12 13 engaging, you can't do the rules, the technology 14 without engaging the community in meaningful ways, 15 in a collaborative way to move a zero-emission plan 16 at the ports, to have an eye towards environmental 17 health and climate justice in doing the work. And there is an effort at the national 18 level to remove NEPA and other mechanisms for people 19 20 to have a meaningful voice, and we should push back 21 against that, as the state has done in other ways 22 with the federal administration. And I think my last slide is just how 23 24 to reach Kim, but you can substitute my name for her 25 name, you'll get to me, but you can also get to Kim.

1 I'll take any questions. I think I'm 2 out of time. 3 CHAIRWOMAN CONNOLLY: Thank you, Amy. 4 All right, we can take one question. Any questions from the Council. No? Okay. Thank you very much, 5 6 Amy. 7 MS. GOLDSMITH: Yes, thank you for 8 having me. 9 CHAIRWOMAN CONNOLLY: We're going to 10 move onto the next speaker, which is Gary Van 11 Tassel, who's the Director of Operations Planning for CSX Intermodal Terminals. 12 13 Gary, are you there? 14 MR. VAN TASSEL: I am. Can you hear 15 me? 16 CHAIRWOMAN CONNOLLY: Yes. 17 MR. VAN TASSEL: Awesome. Let me see 18 if I can get my presentation to share now. This is 19 the next big question. And it looks like it works. 20 So we're off to a good start here, I think. 21 So, first of all, I appreciate 22 everybody being part of this today and the 23 opportunity to speak on behalf of CSX and the work 24 we've been doing alongside within the intermodal 25 terminal space, which is the top of my presentation,

1	but also within the railroad and the larger
2	industry.
3	So, just, CSX at a glance. We are 193
4	years in operation, that, we started with the B&O
5	Railroad and C&O. Parts of the New York Central are
6	with us. So, you know, it's of kind of like working
7	in a Lionel train set sometimes.
8	But it is a fairly large network in
9	the east, we're one of two class one railroads out
10	here, for those who weren't aware. The Norfolk
11	Southern is the other, who we heard from earlier.
12	And, you know, a little bit of our business mix,
13	over here to the right.
14	I think, historically, we may have
15	been considered a coal railroad, and that may have
16	been true historically, particularly with, you know,
17	the Appalachian Mountains, and all of that.
18	But, really, you can see here that
19	we're a really diverse company in terms of the
20	products we move, you know, from the Mississippi
21	River east, with merchandise having quite a large
22	percentage of what we do, but, also, a lot of
23	diverse products within what we consider
24	merchandise.
25	So it's just about everything you can

imagine your household or your company using, it 1 2 generally will run or a rail at one point or 3 another. 4 And then, of course, intermodal, which 5 is the department I work within, and, specifically, 6 intermodal terminals. Just to kind of give 7 everybody an idea of what intermodal is, we are a 8 containerized moving aspect of the supply chain. So 9 the same containers that are on ships, that are on trucks that are going in and out of the ports, 10 11 distribution warehouses, we also move by rail. 12 We have two primary types of container 13 we move, which is, one, the international component, 14 which is what you do see in marine ports, but there's also 53-foot domestic containers that move 15 16 around the supply chain. So, lots of really good 17 stuff going on in there. An intermodal terminal is a lot like a 18 marine terminal. We use a lot of the same 19 20 equipment, the same processes, the same operating systems. Really, we're often compared to marine 21 22 terminals. We're a little different. We have some 23 more opportunities and a few fewer opportunities in 24 there. But a lot of what you've heard from the port operators earlier could also, generally, be applied 25

1 to us. 2 So moving on, this is our commitment 3 to improving our emission profile and our greenhouse 4 We are targeting 37 percent reduction by qases. 5 2030, which is very aggressive. We're the first class one to be 6 7 approved by a science-based target initiative. We 8 also understand that there is no one silver bullet 9 that will get you to that goal. It's a very 10 aggressive goal, and it's going to take a 11 combination of our operations, our management, and 12 our technology. 13 So when you start thinking about 14 operations, you know, we're pretty well-known for 15 our transition to scheduled railroading, a few years 16 ago, which has really reduced the asset intensity. 17 It's reduced the number of locomotives we have to 18 have in the fleet. It's reduced the total number of 19 railcars. 20 It's reduced a lot of unnecessary 21 waste that goes into a traditional railroad, and has really allowed us to save a tremendous amount in 22 23 fuel consumption, emissions, and other environmental 24 impacts, you know, such as smaller footprint 25 terminals, which I'm going to talk about here in

just a few moments. 1 2 We have active management, 3 particularly around fuel, because that is one of our 4 largest costs, and it is an area of both benefit to 5 burn less of it, both from an operating, a cost, and 6 an environmental standpoint. 7 So we have, you know, very proactive management in that space across the railroad in the 8 9 intermodal terminals. And then, of course, 10 technology, you know, Trip Optimizer, which we heard 11 a little bit about earlier, MeetPass technology, 12 anything that is really optimizing the operation of 13 a train we're introducing and proactively managing. 14 So, some pretty exciting stuff, but it 15 will take dedication on the parts of all three of 16 these pillars to ultimately be successful. 17 So what I'm going to talk about today 18 is really in my space, and I'm really proud to lead the team, along with our technology partners, that 19 20 has implemented a number of systems around our 21 network that have not only improved our capacity and our throughput, but have also enhanced our customer 22 experience and reduced our emissions. 23 24 Actually, it never really dawned on 25 me, to be quite honest, that some of the work we

were doing was having a very profound environmental impact until we started discussing it last year, and it was quite amazing how reducing truck idle time and increasing throughput can have such a positive impact on environmental impacts in the surrounding area.

7 So XGate is our primary gate system. 8 We developed it inhouse. It's similar to other 9 railroads and other port terminals that are 10 introducing mobile app technology, and we've been able to introduce this to, roughly, 27 sites of the 11 12 30 intermodal terminals we operate, two of which are 13 in New Jersey, in Bergen and Kearny. Both have this 14 technology.

15 About 80 percent of all of our gate 16 transactions occur within XGate, which has 17 essentially eliminated truck queuing, which is pretty amazing, and has also eliminated down periods 18 where employees may have been on lunch, or gates 19 20 would stop for various reasons and back up. We see 21 that very seldomly now, if at all. So prior to introducing this 22 23 technology, which is just a very high level series

25 planning via their mobile application. And when

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of cameras, and the driver does all of their mission

1	they get to the kiosk, which you can see here in
2	this picture, all they're doing is scanning a QR
3	code. This is very similar to a lot of technologies
4	you see, right down to Starbucks, when we used to be
5	allowed to go inside.
6	This is increasing the velocity of the
7	truck from between queuing and gate processing, a
8	process that could have taken ten, 11, even 15
9	minutes at times to under 30 seconds, on average.
10	So that's a massive improvement on
11	trucks that are not sitting and waiting. And across
12	our network and the million-plus transactions we'll
13	accomplish with this system, we're saving about
14	6,000-plus tons a year in carbon emissions, not to
15	mention a much smaller gate footprint, which, you
16	know, less impervious pavements, you know, less
17	infrastructure is always better when it comes to the
18	environmental impact.
19	And, most recently, it was brought to
20	my attention again, not always thinking about these
21	things, but it's also kind of a socially responsible
22	system, in that you don't have to touch anything,
23	except your own phone. So you can stay at distance
24	and not have to worry about being in direct contact
25	with something that many other people have been in

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contact with. 1 So we're very excited about this, you 2 3 We're about three years into it now and it know. 4 just continues to grow beyond our wildest 5 expectations. So, just a little bit more about the 6 7 technology itself. You can see in the two pictures, 8 the upper photograph there is our inbound portal. 9 The drivers do not stop going through this, and this 10 is technology that's been around in the industry for 11 the better part of a decade and a half. But it has become normal enough that the costs have come down 12 13 to make it a viable option. 14 It used to be very, very expensive. 15 Now they are quite reasonable to introduce, and even 16 to our smaller terminals where the justification may 17 not have been there historically. So you see it's a series of cameras 18 19 and lights, high-resolution images, that, at 75 20 images that are captured and stored that can be 21 retrieved later for inspection purposes or anything we really need to use them for. 22 23 In the bottom right, it's a slightly 24 different portal system, but this is really the 25 security validation check. Is that driver taking

the unit that they say they are taking? 1 2 And then we can autopopulate that into 3 the mission to make it a lot more streamlined, 4 again, taking an average outgate transaction down to under 30 seconds. 5 So, it also allows us to centralize 6 7 the gate processing into the local office here in 8 Jacksonville, which gives us a quite a bit of 9 economies of scale there. 10 So, again, this has been deployed at almost all of our terminals, and by the end of the 11 year a variation of it will be deployed at all of 12 13 our terminals as we continue to scale it out. And 14 we're really excited about all of the benefits that 15 it has provided us and will continue to provide us. 16 So moving onto the other aspect that 17 Intermodal Terminals, CSX Intermodal Terminals has 18 been leading the industry in are, really, introducing more automated electrified equipment to 19 20 our operations. 21 So you have seen in New York, New Jersey automated stacking cranes, I think they're 22 across the way at New York Container Terminal. But, 23 24 so, this is technology that's rapidly advancing 25 within the larger industry, i.e., marine terminals

1 and rail yards.

2	We are the first intermodal terminal
3	to almost fully automate a rail intermodal terminal,
4	or, a intermodal crane, about 70 percent of that
5	move cycle. I the remainder of the move cycle goes
6	to an operator, as you can see in the bottom left
7	here, to perform the last part of that, and that's
8	mostly done for safety concerns. As that
9	technology, you know, evolves, we want to make sure
10	that we are remaining safe and not depending
11	entirely on the technology.
12	So, using a number of very cool
13	algorithms and integrated systems, essentially,
14	these cranes know when to wake up and go to work.
15	They work 24 by seven, provided somebody is there to
16	tend to the exception handling. And it really
17	allows us a scalable clean, quiet, they're very
18	quiet, way to load and unload railcars, as well as
19	to and from trucks. And rail has its own unique
20	challenges, but we're very happy with how this is
21	going.
22	In fact, this is our Winter Haven
23	facility in Florida. We have also introduced this
24	at our second largest terminal, in Fairburn,
25	Georgia, does about 750,000 loads a year, and we'll

1	be opening another almost actually automated
2	facility in North Carolina here at the end of the
3	year, assuming we can get your cranes built in time.
4	So this technology is going to
5	continue to take foot within the industry. We were
б	pioneers along a few other railroads, but it
7	certainly isn't the end of the road. And you're
8	going to see a lot more of this happening across the
9	rail industry, as space, environmental impacts,
10	capacity and customer service continue to escalate
11	in an important manner.
12	So, just a little bit more about our
13	systems automation. And one of the presentations
14	earlier, I think it was Maher, we actually have
15	Maher's competitor's operating system. They're kind
16	of the same rats in a different cage, but wonderful
17	systems that really are taking care of reducing the
18	amount of handles that a container has to go
19	through, which is energy, and ensuring the highest
20	level of throughput and the fastest turn time for
21	the over-the-road drivers, to make sure that they're
22	not idling or waiting and creating more emissions.
23	So if you look at this graph, you're
24	really seeing an opportunity. One of the advantages
25	that rail has that maybe marine terminals don't is

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1	we can go directly from a railcar to a stack or
2	directly to a truck.
3	Whereas, in a marine terminal, you
4	don't bring trucks under the ship-to-shore cranes.
5	I started my career in the marine terminals. So,
б	you always have to go to an intermediate area,
7	stacking area, and then hand off the trucks.
8	We have huge opportunities to do
9	direct transfer to and from in a very efficient way.
10	So that's one of the areas that we have been really
11	trying to capitalize on over the past couple of
12	years.
13	And then, you know, a little bit more
14	about the configuration here, and this is my last
15	slide. I'm going to probably give back just a
16	little bit of time for questions, or get us caught
17	up here.
18	But you can really see our
19	conventional terminals, which really makes up a
20	large portion of our network. This top slide here
21	is our Chicago terminal in Bedford Park. If you've
22	ever flown into Midway, you've seen it.
23	This facility does about a million
24	loads a year. And you can see all of the containers
25	in the right-hand picture staged to chassis, which

1	will then need to be transported by a yard truck, a
2	diesel yard truck, to trackside, and then delivered
3	with diesel or diesel electric crane.
4	We have been very aggressive in our
5	equipment procurement to go to more diesel electric,
6	fuel-efficient, low-emissions equipment. But that's
7	a long process in such a large network such as ours.
8	Whereas, on the bottom right-hand
9	corner you're seeing Northwest, Ohio facility, which
10	we opened about a decade ago. And you can see,
11	really, the direct transfer and the integration and
12	decoupling of the various aspects of the operation,
13	and these cranes are spanning over multiple aspects
14	in order to better optimize and create that density.
15	So, and, of course, all electrified, very quiet, low
16	emission.
17	The only horizontal transport or the
18	only trucks that are on that facility are the other
19	the over-the-road trucks, which we target to get in
20	and out of the facility in under 30 minutes, which
21	is pretty good. A lot of marine terminals target
22	under an hour or hour and a half. We go for the
23	30-minute deadline. But they're the only diesel
24	trucks on-site. All of the diesel yard trucks were
25	not necessary. So I think we have one, in case we

have to move a box here or there, but that's about 1 2 it. 3 So, a lot of really exciting things in 4 the intermodal terminal space. The good news is, 5 we're not alone. Even our competitors we like to 6 share ideas with, and continue to advance the 7 industry, from both an environmental, but also 8 productivity aspect. 9 So that is my presentation. And, so, 10 I will open it up for questions, if anybody has any. 11 CHAIRWOMAN CONNOLLY: Great. Thank 12 you, Gary. We have time for one question from the 13 Council. Any questions? Cool picture. 14 MR. VAN TASSEL: Yeah. I'll stop 15 sharing my screen now. 16 CHAIRWOMAN CONNOLLY: Thank you. 17 Thanks, Gary. 18 MR. VAN TASSEL: Thank you. 19 CHAIRWOMAN CONNOLLY: Okay. Our next 20 speaker, Ken Adler. He's a senior contributing 21 scientist from the Environmental Defense Fund. 22 Ken, are you with us? 23 MR. ADLER: I am here. Thanks very 24 much. 25 CHAIRWOMAN CONNOLLY: Great.

1	MR. ADLER: Do you want to pull up my
2	slides? I think I saw them there.
3	CHAIRWOMAN CONNOLLY: Heidi is doing
4	that.
5	MR. ADLER: Okay. While they're
6	getting pulled up, let's see here. Okay, I think
7	we're ready to go. Thank you, Heidi.
8	Thank you very much for the
9	opportunity to speak today. I'd like to provide my
10	perspective on New Jersey's port and air quality
11	issues, based on my 30 years of work at the US EPA,
12	from which I'm retired, and four years with the
13	Environmental Defense Fund.
14	I have three objectives for my
15	presentation today. I'd like to help the Clean Air
16	Council understand the severity of the problem in
17	terms of ambient PM2.5 exposure in the immediate
18	vicinity of the port, and I'd like to explain in
19	part why EPA's emission control regulations are not
20	working for the port. And I think that will help
21	you understand why your action is so critical.
22	And then, lastly, I have some specific
23	recommendations for reducing emissions from drayage
24	trucks and marine vessels. We can go to the next
25	slide. And I think I covered all of that, why don't

1 we go to the next slide.

2	So the Environmental Defense Fund's
3	mission is to preserve the natural system on which
4	all life depends. And EDF links science, economics,
5	law, innovative private sector partnerships to
6	generate emission reductions and benefits. And we
7	have pursued this approach with numerous ports
8	throughout the country. Next slide.
9	In working with our ports partners, we
10	have worked to help them obtain millions in dollars
11	worth of grants, and we've also generated a variety
12	of technical resources to help ports identify clean
13	technologies to help achieve reductions. Next
14	slide.
15	I want to talk a little bit about the
16	ambient PM2.5 concentrations around the port. And
17	this data was made available by a study conducted by
18	Harvard, and it is what we call the Harvard Ensemble
19	PM2.5 data. It is ambient concentration data. It's
20	for the years 2000 to 2015, both annual and daily,
21	
	and it provides national coverage at a one-by-one
22	
22 23	and it provides national coverage at a one-by-one
	and it provides national coverage at a one-by-one kilometer.
23	and it provides national coverage at a one-by-one kilometer. What makes this data so unique is that

The data was used and reviewed, has 1 2 all been peer reviewed, and it was used as an 3 instrumental part of EPA's PM NAAQS policy 4 assessment, which stated, "Excellent performance in 5 cross-validation tests suggests that hybrid methods are reliable for estimating PM2.5 exposure in many 6 7 applications." 8 And as you can see, the arch squared 9 for this data is 0.89, which is very good. Next 10 slide. This slide shows where ambient PM2.5 11 12 concentrations are between nine and 12 micrograms 13 per meter cubed, right near the Port Authority's 14 activities. It also shows the location of EPA 15 monitors and of major PM2.5 stationary sources. 16 I'd like to point out one issue that's 17 not part of this work, but it is important, that, as you can see, some of these PM2.5 monitors are not 18 necessarily located in areas that the data suggests 19 20 have the highest concentration of PM2.5. Next 21 slide. So, according to EPA, there were 22 23 52,100 premature deaths each year at the current 24 standard of 12 micrograms per liter cubed. And 25 reducing the standard from 12 to nine would prevent

1 12,500 early deaths per year.

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2	So as I showed in the previous slide,
3	there is a large segment of the community near the
4	port that is living in this area, between nine and
5	12, where it is clearly a health hazard.
6	While Administrator Wheeler at EPA did
7	not strengthen the current standard, so, you know,
8	the standard has not yet been lowered, based on my
9	experience, it is inevitable that the standard will
10	be lowered to nine or ten, either through lawsuits
11	or through administration.
12	When this occurs, New Jersey, and it
13	is very likely that New Jersey will become
14	nonattainment for PM2.5, and it will allow the use
15	of EPA hot spot regulations, which can be a very
16	important tool in helping to protect the local
17	communities from these local hot spot PM spots.
18	Next slide.
19	So I'd like to make a few observations
20	about the port emissions. I think it's been
21	recognized already that drayage remains the largest
22	source of PM2.5. What is also important, though, is
23	that it is the closest source of PM2.5 for the
24	populations. And the health effect of PM2.5 is
25	directly related to the proximity of the source.

So not only is drayage the largest 1 2 source, it is probably the most health impactful 3 source, and it is critical, I would say it is 4 critical to reduce these drayage emissions. I think it has also been mentioned, 5 6 harbor emissions are much larger than just the Port 7 Authority inventory. 8 EPA recently released its 2017 9 National Emissions Inventory. And if you look at that data from there, you'll see that while the port 10 11 is reporting 64 tons of PM2.5 from vessels, EPA is 12 reporting 283 tons. 13 Similarly, the port is reporting 5,499 14 tons of NOx, while EPA is reporting 12,300 tons. Next slide. 15 16 I think it's also important to point 17 out that the Port Authority is a major contributor of pollution. There are times when we hear that 18 they are a small source of pollution relative to 19 20 other sources. And, technically, that may be true. 21 But I think we know that all sources are relatively 22 small. 23 And I just wanted to provide a quick 24 comparison between the Port of New Jersey's 25 emissions inventory and the Phillips 66 Bayway

Refinery emissions. And you can see, in the case of 1 2 NOx emissions, the Port Authority is responsible for 3 more far more NOx emissions than the refinery is, 4 and the other emissions are fairly close. 5 So I think it's fairly clear that the б Port Authority is a major source of emission in that 7 location. Next slide. 8 Let me make just an obvious 9 observation, but just something that's worth 10 pointing out. The CO2 emissions are not decreasing 11 at the port. Again, we hear that per ton or per 12 container, they're doing a better job, and they 13 really are doing a better job. If this was a point 14 source, that is not something -- you don't use that 15 as an explanation. 16 So, obviously, more needs to be done 17 on the CO2 front. And I think that a lot of people 18 have spoken to that already. 19 The Port deserves great credit for 20 reducing PM.25 emissions, as you can see. However, 21 again, the level of emissions needs to be reduced to minimize the health effects. 22 23 So, while the reductions are good, we 24 should not be satisfied until we've achieved our 25 health goal. Next slide.

So, one reason that it is so critical 1 for the Clean Air Council to act is because the EPA 2 vehicle emission standards do not work, or have not 3 4 worked at ports. And the primary reason they have 5 not worked is because the equipment and vehicles 6 that operate in and around the port do not turn over 7 like light-duty vehicles. 8 While light-duty vehicles almost 9 always are out of service after 20 years, this is 10 not the case for the drayage trucks. And as we all 11 know, ports are magnets for these old trucks because 12 of the short trips that they are required -- that 13 they make. And, so, the EPA regulations have simply 14 failed to do what they need to do in the port areas. 15 Secondly, for harbor vessels, as The Diesel Technology Forum mentioned earlier, we know 16 17 that the useful life of these harbor vessels is 50 18 years or more, not the 23 years estimated by the 19 EPA. 20 And, in fact, many of these harbor vessels, the tugs, the workboats, the ferries, these 21 engines are not replaced unless there is 22 catastrophic failure, as in, the vessel sinks, or 23 24 the engine blows up. Otherwise, the engine 25 continues top operate at the current standards,

indefinitely. 1 2 Caterpillar did a survey and found 3 that 81 percent of the category two engines were 4 unregulated, as in there were no emission controls. 5 Secondly, switchers are also very 6 long-lived and have been able to avoid a number of 7 the EPA -- in some cases, have been able to avoid 8 the rebuild requirements by operating to failure. 9 So this, too, is a failure of the EPA 10 regulations, maybe more of an enforcement issue, to 11 effectively move these engines into cleaner tiers. Next slide. 12 13 So let me talk a minute about drayage 14 emissions. As you can see, good progress on PM 15 reductions, very poor performance on the CO2 16 emissions. Next slide. 17 So there's been tremendous progress 18 being made on zero-emission drayage trucks. Most of 19 this is, obviously, as you all probably know, coming 20 out of California. But the major OEMs are beginning 21 to release new models which are increasingly finding favor with the trucking companies. Much of the 22 23 effort to get these on the road are driven by 24 regulations. Next slide. 25 If you are looking for any one source

of information on what is needed to bring zero 1 2 emission drayage trucks to the port, I would 3 strongly encourage this UCLA report. 4 In particular, they identified the 5 specific incentives and regulations that are needed 6 to make this happen. And the number one 7 recommendation they have is a drayage fee based on 8 compliance with emission standards. 9 And, just to read the quote from the 10 UCLA conclusion, "As demonstrated by the rapidly 11 successful 2007 Clean Truck Program, the strongest lever in the Port's policy tool book is the ability 12 to assess differentiated Cs to trucks entering the 13 14 ports based on compliance with emissions standards." 15 Now, this isn't enough. If you're 16 going to have electric trucks, you need utility 17 level incentives and you need the financial incentives to make the electric trucks less 18 19 expensive. 20 And I understand that one truck, or, 21 at least one company is experimenting with a electric truck operating, I guess, with Costco. 22 And I don't know the current status of that, but, 23 24 obviously, there are folks in your area that already 25 know something about this.

1 CHAIRWOMAN CONNOLLY: Hi, Ken, just 2 giving you a five-minute warning. 3 MR. ADLER: Okay, thank you. Next 4 slide. 5 Let me just talk a hint about the 6 marine vessel emissions. Again, you can see the CO2 7 issue, still a big problem. Good reductions very 8 good reduction in PM2.5 emissions through 2015, but 9 then it stopped. And I want to just mention one 10 other factor here. Well, actually, I think I have 11 it in the next slide. Let's go to the next slide. The marine vessels are the second 12 13 largest source of emissions after drayage. I think 14 I mentioned earlier that Caterpillar survey showed 15 that most of them are, most in operation for the 16 category two engines are unregulated and they're 17 emitting around 0.32 grams of PM2.5 per kilowatt hour, while the new Tier 4 standard is at 0.03. 18 19 Fleet turnover is much slower than 20 anticipated by EPA. And as I mentioned already, the 21 Caterpillar survey found that 81 percent were 22 unregulated engines. Next slide. 23 That's a really tough nut to crack 24 because of the challenges and expense. But as the 25 speaker from The Diesel Technology Forum mentioned,

the cost effectiveness of reducing emissions from 1 2 marine vessels is excellent. But there are other 3 programs. 4 The Vessel Speed Reduction Program, 5 obviously, is very important. I do want to point 6 out that we talked with many ports about this ten 7 years ago, and we were told that it was impossible, 8 impractical, unsafe. 9 So it is great to see that they have 10 figured out how to do this safely, but I would also 11 encourage people to keep pushing, because sometimes 12 when the ports state that you can't do something, it 13 turns out later that it is possible, but it just 14 takes time. 15 I'd encourage the Clean Air Council to 16 evaluate compliance with EPA regulations, to rebuild 17 old tug engines with certified upgrade kits. That 18 may be one reason why the emissions reductions have 19 slowed up. 20 I can tell you that we are also 21 working at the Port of Houston to encourage the 22 people hiring the workboats to focus on tugs and workboats that have and least Tier 2 engines, so the 23 24 contracts, basically preferential contracts for 25 cleaner harbor workboats, would send a very

important signal. 1 2 Norway implemented mentioned a 3 vessel tax. They were able to generate 35,000 tons 4 of NOx reductions. It was a phenomenally successful 5 program, and obviously evaluates feasibility and 6 shore power and bonnet control systems. Next slide. 7 I think I'm almost done. 8 Here is just a quick picture of zero 9 emissions marine vessels. They are not as far along 10 as the drayage trucks, but certainly should be 11 explored next slide. 12 So, conclusion: Air pollution from harbor emissions are two to four times larger than 13 14 the Port Authority inventory. EPA truck, marine and 15 locomotive regulations inadequate due to limited 16 fleet turnover. And reducing the PM2.5 National 17 Ambient Air Quality Standards nine or ten would 18 generate major health benefits for the local port 19 community. Next slide. 20 So, a summary of recommendations: 21 Implement differentiated drayage fees, provide 22 electric infrastructure incentives, and promote 23 electric drayage truck demonstration projects. 24 For the marine vessels: Compliance 25 with EPA certified engine rebuild regulations,

preferential contracts for Tier 2, and plus harbor 1 2 craft, evaluate the Norway marine vessel NOx tax, 3 and then continue to work on the shore power and 4 bonnet technology. 5 And, lastly, a CO2 reduction target 6 for the Port Authority might be something worth 7 considering. Thank you. You can go to the next 8 slide. 9 CHAIRWOMAN CONNOLLY: Okay, thank you, 10 We probably have about minute for questions Ken. 11 Any questions from the Council? for Ken. 12 CO-CHAIRMAN EGENTON: Maria, it's Mike 13 I'd just like to ask Ken, I participated Egenton. 14 in a similar hearing that the Council held on this 15 topic over a decade ago, and one of the things that 16 was mentioned was the challenges, especially for our 17 state DEP, to even do anything even with the larger ships, because we're talking about international 18 waters and, you know, the challenges that are there. 19 20 Do you care to reflect on that? 21 Because the emission MR. ADLER: Yes. 22 controls on these vessels is regulated by the IMO, 23 it is very difficult to get reductions in the United 24 States beyond what has been allowed. 25 I would say that I understand that new

1	free trade agreements being negotiated with European
2	countries are beginning to include consideration of
3	the emissions from the vessels on which the goods
4	are transported.
5	So if a product comes into the country
6	on a very polluting vessel, there is an excise tax
7	on that product because of the way it was delivered.
8	And I think that might be the newest form of or
9	control that is something more within the power of
10	the United States or individual countries to deploy.
11	There are other strategies being
12	looked at by IMO, but it is a very slow-moving
13	process.
14	CO-CHAIRMAN EGENTON: Thank you.
15	CHAIRWOMAN CONNOLLY: Thank you.
16	Thank you, Ken.
17	MR. ADLER: Thank you all.
18	CHAIRWOMAN CONNOLLY: Okay, next
19	speaker is Pamela Frank. She is the CEO of ChargEVC
20	an VP Gabel Associates.
21	Are you there, Pam?
22	MS. FRANK: I am. Can you hear me
23	okay?
24	CHAIRWOMAN CONNOLLY: Yes.
25	MS. FRANK: And, Heidi, if you will

throw up the slides, that would be terrific. 1 2 So while we're waiting for that, I 3 know that the afternoon is light, so I'm going to go 4 through this pretty quickly. 5 What I'm going to do today is to go 6 through some preliminary results of a study that 7 ChargEVC has been doing on medium/heavy duty, the 8 segment. 9 And I should say the purpose of this 10 work is really to help inform how we are going to 11 allocate resources in New Jersey in medium/heavy 12 duty, where the opportunities are, essentially, for 13 the biggest impacts, the most impactful impacts on 14 the things that matter in New Jersey. So let me 15 start, Heidi, if you can move to the next slide. 16 For those of you who aren't familiar 17 with ChargEVC, we are a not-for-profit business association. We're doing work in New Jersey to 18 electrify transportation, and we've been around for 19 20 just over four years. 21 So Mark Warner was a preliminary investigator in the study work. Both Mark and I are 22 23 vice presidents of Gabel Associates, an energy 24 environment and public utility consulting firm. 25 Essentially, Gabel kind of seeded and

started ChargEVC, and we now manage the coalition, 1 2 so that's the linkage there. 3 So I'm going to run through first sort 4 of the vehicle categories when we talk about 5 medium/heavy duty. It's a big, big category, and 6 segmentation matters, for reasons you'll understand 7 shortly, especially when we're trying to figure out 8 how to strategically use resources. 9 So we're going to go through what we 10 have in New Jersey, and then we're going to do a 11 slot experiment to really illustrate, I think, what is possible in electrifying medium/heavy duty. 12 13 We're going to take the 2019 baseline 14 that we've established, and we're going to kind of 15 fast-forward and imagine what a world would look 16 like if we electrified 80 percent of that segment, 17 using that 2019 baseline. And then we're going to 18 finish up with some recommendations for how we look The state is -- according to the EV law 19 at this. 20 that was passed last January. 21 So this will be coming up with goals for medium and heavy duty by the end of this year. 22 And so we're going to talk a little bit about some 23 24 of our thoughts about how we start setting those 25 goals. You can move to the next slide, Heidi.

1	So the vehicle categories and how we
2	start to segment them and slice and dice them. It's
3	a big undertaking to do this. And, so, this slide
4	really just illustrates using the 2019 vehicle
5	registration data that we had.
6	It essentially attempts to put the
7	cohort of medium/heavy duty into categories. We've
8	used MOVES, and it's also informed by the vehicle
9	class that FHA puts out. And you can see here how
10	this falls out in terms of segments.
11	A lot of this is done by weights. I
12	think a lot of folks on the call are very familiar
13	with this methodology, so I don't want to belabor
14	it. But I do, at least, want folks to understand,
15	you know, it starts with a segmentation exercise, so
16	we can start to target where the opportunities are
17	and where the impacts are as well. So let's move to
18	the third slide.
19	So this is how that segmentation
20	that's out, in terms of what we have in New Jersey.
21	And you can see, you know, when we look at things
22	that are moving on wheels, the vast majority of this
23	is light-duty passenger cars and light-duty trucks.
24	And then you see sort of small, very small
25	categories that follow after that. And this was

looking at, again, 2019 data. 1 2 We have, you know, 6.7 million or so 3 fueled vehicles that are registered in the State of 4 New Jersey, and this is just showing you how it 5 breaks out on the segments we've identified. You know, folks talk a lot about 6 7 transit buses, as an example. And if you just take 8 a look at how many transit buses are on our roads 9 compared to other vehicles, you see it's a 10 relatively small percentage. 11 It doesn't necessarily mean it doesn't 12 have a big impact, but I just want you to understand 13 how these numbers are falling out. Let's move to 14 the next slide. 15 So, this, I just want to spend a 16 little time talking about this and kind of give 17 everyone a moment or two to digest this. Because, 18 essentially, this really is, when we looked at 2019 and we looked at the various segments, a couple of 19 20 key findings out came out of this. 21 And, so, you can see, you know, on the bottom horizontal access. You can see the things 22 23 we're measuring, right, the things that we care 24 about, the NOx emissions, the SOx emissions, the particulate emissions, how many miles we're driving, 25

what the populations of the vehicles are. 1 So you 2 can see that and how that's falling out. 3 And the key conclusions of this 4 initial look were, obviously, light-duty vehicles do 5 represent the majority of the vehicles that we've 6 got in the state, just by count and the miles 7 driven, and the majority of the fuel used in costs, 8 and importantly, CO2 emissions. 9 This is one of the reasons why ChargEVC focused first on what we considered 10 11 low-hanging fruit in trying to get -- and we were 12 successful in helping support a bill, which is now 13 law, that would go a long way towards helping to 14 accelerate the adoption of light-duty electric 15 fleet. 16 But now we've been turning our focus 17 to medium/heavy. And when we look at impacts related to medium/heavy duty, what we realize, which 18 has been confirmed by a lot of us during the 19 20 testimony today, is, these vehicles represent the 21 majority of our NOx and SOx and particulate 2.5 22 emissions, which are, you know, the health-impacting emissions, obviously, that differentiate from CO2 in 23 24 terms of health, and, also, the large majority of 25 environmental impacts as well.

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1	And, so, when we're thinking about the
2	motivations behind electrifying light-duty fleet,
3	those get to the cost of fuel, where you have huge
4	benefits on fuel savings. You'll spend about a
5	third to fuel an electric car with electricity than
6	you will an IC engine car on fossil fuels. So
7	there's a huge savings there that has ripple effects
8	throughout the economy, and also CO2.
9	When you're looking at medium/heavy
10	duty, you're really prioritizing the public health
11	impacts there. That is where most of the impacts
12	are, and that's what you're going to help to
13	alleviate by cleaning up medium/heavy duty.
14	We say this because we just think it's
15	important for folks to understand, you know, where
16	the majority of the CO2 emissions are coming from in
17	the transportation sector and where the
18	health-impacting emissions are coming from.
19	And this is also going to get to, you
20	know, particular hot spots and locations and just
21	remind us, you know, the reasons why and what we're
22	going to seek to measure when we put resources into
23	a specific area. So let's go to the next slide,
24	please.
25	So this is the interesting thought

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1	experiment we did, and in terms of trying to figure
2	out, what would we get, right, what would the
3	outcome be? What would the impacts be if we
4	electrified 80 percent, based on our 2019 baseline?
5	And, as expected, so the left side of
6	this graph is your baseline, in a nice dirty brown
7	square. And then that middle square is the outputs
8	of an 80 percent electrification scenario.
9	And you can see, you know, right away,
10	if you look at the costs of fuel, you can see that
11	drops pretty significantly, as you would expect,
12	with an 80 percent transition to electrification.
13	You've gone from 14 billion to around three billion
14	for fuel.
15	But, most importantly, and most
16	significantly, you can even look at the
17	environmental damage number at the bottom, where you
18	see a 7.1 billion as sort of baseline today, and you
19	go down pretty significantly to 3.5 billion in an 80
20	percent electrification scenario.
21	So this is going to, I think, help us
22	understand what the potential is here for focusing
23	on electrification strategy, what we can hope to get
24	out of this, what the impacts are going to look
25	like. And then we have to start to think about

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where we start to put investments that are going to 1 2 make the biggest difference. 3 Part of the study work that we are 4 doing is a readiness assessment, a market readiness 5 assessment, so we can really begin to understand the 6 segments that are ready for electrification, the 7 low-hanging fruit, and those where we may have to 8 wait a little bit longer for the technology to 9 So that's going to be part of this work progress. 10 which will be made public, I think we're planning 11 around the September time frame right now. 12 Now, you can see some of the things 13 that folks would find, you know, particularly 14 interesting in terms of how much cleaner we get on particulate matter. You can see that one-year 15 16 impact all the way on the right side in those orange 17 boxes. You can see the NOx has been lowered by 70 Again CO2, it's about half. And I already 18 percent. 19 reviewed the fuel savings. 20 Now, the SO2 goes up a little bit. 21 The reason that it goes up a little bit is because we're using more electricity. And what has to 22 23 happen as a result of really moving to the goals in 24 New Jersey is, we have to simultaneously transition 25 transportation to electrification while we are also

continuing to clean up our generation grid and 1 2 incorporate more emission-free solar wind, the 3 storage we're going to need to help facilitate that. 4 But that is why in this particular 5 scenario we ran you see the SOx elevated. It's 6 because we're using more electricity, and we're 7 going to have to be doing more, which is another 8 policy discussion, to clean up the grid in order to 9 ramp those numbers down. 10 So let me just pause there and give everybody a second to look a little bit more deeply 11 12 at these figures before we move onto the next slide. 13 Okay, Heidi, why don't we move to the 14 next slide. 15 So the key findings in this Okay. 16 study work so far, again, we will be making this 17 public, probably around the September time frame, what we, I think, all understand is that light-duty 18 19 vehicles do account for the majority of miles and 20 CO2, but the buses and the other medium- and 21 heavy-duty equipment in this state have a 22 disproportionately large impact on health-impacting emissions. We understand that these impacts are 23 24 strong near those medium-, heavy-duty travel 25 concentration areas.

Further, I think, as I said before, we 1 2 best prioritize light-duty electrification for fuel 3 and operational savings and CO2 reductions, and we 4 best prioritize diesel displacement as a public health initiative. 5 As we illustrated in our segmentation 6 7 slide, the diesel segments are extremely diverse. 8 This is probably one of the most important points I 9 think we've discovered in this work, is, they're 10 very diverse and they are going to differ 11 significantly on how ready they are for electrification, and that's going to affect the 12 13 transition schedules that we come up with. 14 There's also an awful lot of diversity 15 with regard to infrastructure requirements for these 16 particular segments and the relative impacts they're 17 going to have on the particulate and other health-impacting emissions. 18 19 CHAIRWOMAN CONNOLLY: Hey, Pam, I'm 20 just giving you a five-minute warning. 21 MS. FRANK: Okay, perfect. 22 Also, so let me skip down to the last 23 slide, because you all can get this and read through 24 at your own leisure. 25 Let's go to the last slide, because I

1	think that's really what we want to hit, which is a
2	little bit of our thoughts on the goal setting for
3	the medium-, heavy-duty segments.
4	We believe that setting goals would
5	benefit from very specific stages, four specific
6	stages, characterizing the baseline per segment,
7	electrification-schedule planning per segment,
8	electrification pathway planning per segment, and
9	then a segment and pathway prioritization. And
10	understand that electrification schedule for each of
11	these segments is going to depend on numerous
12	factors that we've listed out below.
13	We are going to quickly realize, as
14	we've started to understand this, that some segments
15	are going to be much more mature than others, and
16	the incentive needs for all of these segments are
17	going to vary widely.
18	There may even be subsegments within
19	traditional vehicle groupings because of different
20	use patterns in a particular segment.
21	And then, also, just as the last
22	point, I think our goal-setting may and probably
23	should also be influenced by some very strategic
24	factors that equate to our public health priorities,
25	our priorities on equity as well.

1	So let me end there and leave any time
2	that we have remaining for questions.
3	CHAIRWOMAN CONNOLLY: Great. Thank
4	you, Pam. Any questions from the Council members?
5	CHAIRMAN VALERI: Yeah, hi, Pam, it's
6	John Valeri. I heard that you have a report coming
7	out in the September time frame.
8	Obviously, we're trying to get a done
9	ourselves. We certainly would be interested in
10	getting your report as soon as possible with the
11	complete conclusions, knowing these things take time
12	to draft and we have a short time frame. I
13	understand if it can't happen, but whatever you can
14	do to supply us with that report would be nice.
15	MS. FRANK: Understood.
16	CHAIRWOMAN CONNOLLY: Okay, thank you.
17	All right, thanks, Pam.
18	MS. FRANK: You're welcome.
19	CHAIRWOMAN CONNOLLY: And next speaker
20	is Christopher Lutwick Lutick. Sorry if I'm
21	saying that wrong. He's the Director of State
22	Government Affairs for United Parcel Service.
23	Are you here, Chris?
24	MR. LUTICK: Yes, I am. Can you hear
25	me?

1	CHAIRWOMAN CONNOLLY: Yes, I can hear
2	you. Sorry if I said your name wrong.
3	MR. LUTICK: Oh, no problem. And,
4	actually, can you see my screen, though?
5	CHAIRWOMAN CONNOLLY: Not yet.
б	MR. LUTICK: Not yet, let's see. I
7	apologize about that. Let's see here. Because I
8	did change the slides around a little bit. And I
9	thought I had this down to a science. Let's see
10	here.
11	Anything? No?
12	CHAIRWOMAN CONNOLLY: No. Does Heidi
13	have your presentation?
14	MR. LUTICK: She does, but I had to
15	cut I had to edit a couple of things.
16	CHAIRWOMAN CONNOLLY: Oh, okay.
17	MR. LUTICK: I apologize. You would
18	think with all the calls that we're on all the time,
19	would have had it down to a science. I apologize.
20	CO-CHAIRMAN EGENTON: Welcome to our
21	world.
22	CHAIRWOMAN CONNOLLY: Oh, something is
23	happening. There it goes.
24	<pre>MR. LUTICK: All right, great;</pre>
25	awesome.

1 Well, thank you, guys. Thank you for 2 having us. Great call today, and it's nice to be 3 here to represent UPS and talk about some of the 4 things that we're working on and the challenges that 5 we have. And when you look at all the 6 7 presenters today, one thing in our industry is we 8 definitely do work as an NVOCC, so we're familiar with marine. We're large uses of the rail, so we're 9 10 familiar with rails, and then, obviously, with 11 trucks and everything that goes on. So, very 12 excited to be here, and thanks again. 13 I will say, and I hope everybody can 14 see that, you know, obviously, right, we know that, 15 you know, trucks are really essential to everything 16 that's going on. 17 You know, we talked about a lot of 18 things today, but at the end of the day, you know, 19 everything moves by truck, for the most part, right, 20 to get to, whether it's the ports, whether it's the 21 railroads, whatever it may be. But it's still a 22 very big part of every day of our movement, our 23 commerce around, not only the United States, but 24 globally. So it's the really the backbone of UPS. 25 And, so, kind of give you an overview,

if you just kind of look here, you know, I feel like 1 2 UPS, we've been very active on trying to, you know, 3 with sustainability, reducing our carbon footprint 4 and everything that we would do, and with our 5 vehicles. And we've been very proactive on this model for, probably, the last 13 years, even though 6 7 it continues to get elevated more and more and each 8 year. 9 And this slide here just kind of gives 10 you an overview of, you know, the things that we've 11 been working on and how we integrate into our fleet, 12 not only here in the U.S., but as well as globally. 13 And you can see, you know, compressed 14 natural gas, ENG, LNG, tends to be a big factor for 15 us with our tractor-trailers. But, you know, we're 16 working with electric, you know, a little bit of 17 propane. So we're trying, you know, to cover 18 everything and institute it into our fleet. But the real challenge, you know, 19 we'll talk a little bit about electric, is that, 20 21 yeah, there are challenges with doing that and 22 getting those things into your fleet. 23 So if you look here, you know, you 24 see, you know the challenge, right. 25 So we have, roughly, we'll say a

1	hundred-thousand-plus trucks. And I think most
2	people on this call are familiar with UPS and our
3	footprint, and you see the brown UPS truck making a
4	delivery, or you see the big trucks on the road, you
5	know, the heavy load trucks. Think about our
6	aircraft and the consumption that we have, right.
7	Now, I don't know if everyone on the
8	call is aware that, just recently, the governor
9	suspended a memorandum of understanding of reducing
10	the carbon footprint in, I think it was 13 states,
11	I'm sorry, 15 states where they want to reduce the
12	carbon footprint by 30 percent by 2030, and a
13	hundred percent by 2050.
14	And these are kind of in-line with
15	some of the things that we're trying to do, anyway.
16	I mean, they are kind of aggressive. We're always
17	working towards, as a company, anyway, you know, how
18	can we continue to reduce our carbon footprint, not
19	only here in New Jersey, but nationally as well as
20	globally.
21	And those are some of the things that
22	just came out. And New York and New Jersey here in
23	this area, and Massachusetts, are a few of the
24	states in the Northeast that are onboard with that,
25	along with California and some other, Northwest, and

other states across the country that are doing that. 1 2 So the challenge, though, for us here 3 is, when we think about this, is, we're very much 4 into PMI. We're very much into taking care of our 5 fleet. We want to get a return on our investment 6 with our fleet. 7 And you'll see here that the thing, 8 you know, when we purchase our vehicles, I started 9 out as a UPS driver for UPS 28 years ago, and I 10 wouldn't be surprised if the truck that I was 11 driving 28 years ago is still in our fleet, in some cases making deliveries or doing something for us. 12 13 Maybe after 20 years, maybe it has been turned over. 14 But the point here is, you know, we're 15 very dedicated to taking care of the maintenance of 16 our fleets, which makes them efficient, which also 17 makes them, you know, burn cleaner, and everything. 18 But what's the challenge, right? 19 We have to turn over this fleet in 20 order to reduce our carbon emissions, which we're 21 doing, but there's kind of, you know, a challenge to do that, right, when you have fleets that last for 22 23 ten or 20 years, and then you have to try and reduce 24 that and turn that over. 25 But we're doing that, and we've set

very high standards for ourselves to make that 1 2 happen, and we continue to work on that, and there's 3 a lot of exciting new things that we're doing to 4 make that happen. And you can see, you know, today, 5 you know, we're still on the road, that'll be on the 6 road in 2020. You know, we talk about 40 percent. 7 40 percent, I showed a previous slide, it was 30 8 percent, and then a hundred percent. 9 So it really depends on the state 10 requirements. It depends on the government. But, 11 also, like anything that we've always done at UPS is 12 we've always set a higher standard for ourselves in 13 what we want to accomplish and get there to do that, 14 because we understand the importance of it, and how 15 we want to do that, and there's a lot of different 16 ways that we're going about that. 17 So, as you know, at UPS, we did a lot 18 with natural gas, LNG and CNG. We have a big network that we do mostly in the midwest, not as 19 20 much here in the Northeast. But, you know, we're 21 working on that. There's a lot of things that are 22 going to be taking place there. We have a CNG station outside of 23 24 Philadelphia that we use that covers, kind of, the 25 Northeast area. But those are some of the areas

1 that we're working with.

2	Now tolking about you know clostrig
	Now talking about, you know, electric
3	vehicles. This is something we at UPS recently
4	announced. We're going to buy 10,000 vehicles. We
5	understand the importance of this zero-emission,
6	but, like anything, you know, there's challenges,
7	there's things that we have to look at.
8	And if you can see here, you know, the
9	durability of it, the cold weather, you know,
10	there's a lot of factors that go into it. But we
11	understand it, you know. Those things are always
12	going to improve over time, testing, and just the
13	way technology comes into play.
10	
14	So we're going to invest in that.
14	So we're going to invest in that.
14 15	So we're going to invest in that. We've scaled it back slightly because of COVID. We
14 15 16	So we're going to invest in that. We've scaled it back slightly because of COVID. We know we have a plan to have somebody out on the road
14 15 16 17	So we're going to invest in that. We've scaled it back slightly because of COVID. We know we have a plan to have somebody out on the road and work with them. But, you know, that's, really,
14 15 16 17 18	So we're going to invest in that. We've scaled it back slightly because of COVID. We know we have a plan to have somebody out on the road and work with them. But, you know, that's, really, kind of where we want to go. We understand the
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14 15 16 17 18 19 20 21 22 23	So we're going to invest in that. We've scaled it back slightly because of COVID. We know we have a plan to have somebody out on the road and work with them. But, you know, that's, really, kind of where we want to go. We understand the importance of that. And I know there's been some conversations talking today about that, about the electric vehicles, and we know we're very excited about that, too. You'll be hearing a lot more about

the Northeast, and California will be beginning the 1 2 testing. 3 But the big challenge is, you know, 4 the infrastructure to support that, and then, you 5 know, how do we go about that, you know, having the 6 charging stations. A lot of that will be done on 7 the property. We'll have the network built inside 8 for us to support that, and then, you know, move 9 from there. 10 So, now, you know, renewable fuels need to be, you know, many years to come, right. 11 12 There's a lot of things that we've been working on, 13 you know, we have they, uh, and greenhouse gases 14 renewable, you know, accommodate. 15 You know, we've been very fortunate in 16 moving trucks and converting our diesel trucks over 17 to LNGs and CNGs in certain parts of the country. And we have to do more in here in the Northeast, 18 19 given the infrastructure and the setup to be able to 20 do that. 21 So, you know, we see that we have about 6,000 natural gas trucks. We're going to be 22 23 buying about 6,000 more. We know on a fleet -- now, 24 this is 65,000 trucks that are on the road that can 25 all be operated or can be converted to RNGs.

So, and that all can be done once the 1 2 proper, you know, we feel -- I sit on some councils 3 where, you know, are there going to be stations set 4 up along the interstate highways, on whatever parts 5 of the country they may be, where people have the 6 opportunity to, you know, refuel or do those things 7 that'll be able to make them have a successful trip 8 and have everything in place to move. 9 Along with that, too, right, so you have, you know, UPS, we're a very viable company, 10 11 There's a lot of smaller fleet companies you know. And, you know, it a kind of comes into 12 out there. 13 play, like anything, right, is, what's going to be 14 the cost? What are going to be some of the 15 incentives there? Are there going to be some 16 incentives that are going to kind of help us to 17 alleviate some of the costs that it takes to put in, whether it's going to be charging stations for 18 19 electric, LNG, CNG stations on our properties? 20 So, you know, we're talking, we're 21 working with some states. I work with some states in the midwest, working on, you know, whether it's 22 23 going to be a, you know, a tax credit, is it going 24 to help with congestion, parking fees, you know. 25 For example, if we look at, you know,

New York City or any urban area, you know, where 1 2 congestion is always a factor. And even in COVID, 3 we've seen a reduction in congestion, but we still 4 have, you know, we still have issues with our 5 parking. Parking is still very limited in these 6 urban areas. 7 So maybe there might be some type of 8 incentive working with the cities to help offset 9 some of those parking issues. Maybe there's 10 dedicated parking space for vehicles that have zero emission, to be able to conduct business and work in 11 those cities. 12 13 But, you know, these are some of the 14 ways that, you know, if you see our sign, I don't 15 want to read it verbatim, but, you know, these are 16 ways that we want to look at and work with, you 17 know, and work with our counterparts, work with the 18 local governments, and people to kind of just see, you know, what kind of options may be available to 19 20 help support that need as we want to expand and the 21 infrastructure and the cost to continue to expand for those stations, whatever they may be needed to 22 23 make that happen. 24 So I want to say, and I know I'm going 25 to kind of go through this very quickly, but here's,

1	really, kind of like a slide I really just want to
2	talk about, and these are the things that UPS is
3	doing today that don't even touch on the that are
4	reducing carbon emissions just because of the way we
5	operate our business and the things that we do.
б	And, honestly, when you think about
7	efficiencies, you think about, you know, how we
8	consolidate shipments, consolidate packages,
9	consolidate our network, where our network is
10	integrated with air and ground being delivered and
11	being moved on one trailer versus multiple different
12	trailers and vehicles.
13	So, you talk about integration and
14	what it does to you. Orion is a program that we've
15	invested in. And I know a lot of people will always
16	say, you know, Oh, is it true UPS doesn't make
17	"right-hand" turns? And, yes, it's true. I mean,
18	you will see somebody make a "left-hand" turn. But
19	Orion really is a program that has mapped out we
20	have people who have been doing areas and tracing
21	and doing things for 25, 30 years, and this Orion is
22	a tool that actually maps out and really find the
23	ways for us to say, Okay, you know you have 300
24	packages, you're going to make 150 stops, these are
25	all the addresses you're going to go to in the next

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1	eight or nine hours, and on a normal day or when you
2	used to do this you would go 22 miles, well, now
3	you're going to do that in 17 miles, or 16 miles.
4	And when you take the number of
5	drivers that we have out on the road every day and
6	the number of packages that we deliver every day,
7	when you cut out a mile or two miles on those routes
8	and you compound that throughout the whole network,
9	that's a significant savings, when you think about
10	sustainability.
11	So that's one of those tools. Coyote
12	is one of our firms where, you know, you never want
13	to move a truck that's empty, and they help us do
14	that kind of thing, so we work in conjunction with
15	them. So we're always moving something in our
16	network and try never to move an empty trailer from
17	point A to point B. That's just, you know,
18	obviously, it's not even good business, it's not
19	profitable. But at the end of the day, it's still
20	very good for sustainability.
21	The electric trikes that we're working
22	with, we're rolling them out. We're working in
23	California, New York and some of these areas, very
24	exciting thing for us to be doing and working with.
25	So, you'll be seeing more of those.

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Obviously, the solar that we've 1 2 incorporated into our buildings and are all over the 3 country, I mean, we all know the benefits we get 4 from that, and we have a very aggressive plan as we 5 continue to upgrade our buildings with those. Same 6 thing with LED upgrades on the lights. I mean, 7 those are just some of the, you know, common sense 8 type of things that we think of, but they're still 9 very important for us to do. 10 And then, obviously, a lot of things 11 that have been very exciting for us, as you can 12 imagine, drone deliveries. And, you know, there are 13 some very rural areas in our country where a driver 14 could drive 50, 60 miles to make a delivery, and in 15 some cases that still may have to happen. But in 16 some cases, especially in critical situations, we're 17 able to use a drone to do that. 18 And that, actually, we have a classification for drone deliveries that are 19 20 equivalent to, our pilots actually oversee that and 21 fly the drones that are FAA certified pilots. So those are, you know, just some of 22 23 the ways we're doing things to continue to help 24 offset our carbon footprint. 25 There's can definitely much more to

1 come on this. We have very aggressive plans, as you 2 can imagine, and we've been, I just want to say, well ahead of this. 3 4 I was on a call yesterday talking 5 about social justice, and I'm very proud of UPS, of 6 the fact that we've been on that for a long time, 7 well before situations that came up and really hit 8 the radar screen back in May with everything that's 9 been going on, so, and the same thing here. 10 So, a lot more to come on that. But I 11 tell you, Heidi, that's all I have, unless anybody 12 has any questions or anything like that. I know I 13 went through it rather quickly. 14 CHAIRWOMAN CONNOLLY: Great. No, 15 thank you, Chris. Do we have any questions from our We have a few minutes. 16 Council? 17 DR. BIELORY: Yes. This is Len 18 Again, thank you very much for your Bielory. It was also, I think Mike Egenton 19 presentation. 20 mentioned that ten years ago we had you also 21 present, UPS present. And we do appreciate the 22 Orion, the efforts you've done. Let me ask another 23 question. 24 As a model for what you have been 25 using, what have your competitors done that you

1	haven't, and that maybe you would like to do?
2	MR. LUTICK: You know, good question.
3	I can't really say there's anything that stands out.
4	I think, and I'm not being bias because I'm a UPSer,
5	or anything like that, but I think we've set the bar
б	and I think our competitors look more to us on our
7	aggressive goals and things that we've done to, you
8	know, do what we're doing with, you know, increasing
9	our fleet and making our fleet a lot more
10	sustainable with alternative fuels and everything.
11	So, and the fact that our network is
12	integrated, too, is something that I think our
13	competitors look at and wish they kind of had that
14	ability, too, to where you can commingle packages
15	and services in one vehicle versus multiple
16	vehicles, as you can imagine.
17	So that's a big saver for us, not only
18	from a business standpoint, but also from a
19	sustainability standpoint.
20	DR. BIELORY: Thank you.
21	CHAIRWOMAN CONNOLLY: Okay, thank you.
22	Any other questions?
23	CHAIRMAN VALERI: Yeah, it's John
24	Valeri.
25	I was curious, obviously, there's been

1	a lot of good discussion about pushing for electric
1 2	vehicles, and you've mentioned the problems with
3	them. I don't know how my screen is coming through
4	right now.
5	What do you see as the bigger problem,
6	the infrastructure or the ability of batteries to
7	carry on distances that meet UPS's standards? I'm
8	just curious what the biggest issue you see in the
9	electrification part.
10	MR. LUTICK: Yeah, you know John, I
11	think it's the combination of both. Because I want
12	to say I think, you know, the energy that's needed
13	to run a truck that weighs 88,000 pounds, you know,
14	it's going to be very difficult, so I would say the
15	strength of the batteries.
16	The infrastructure, we feel we can get
17	that set up and do that in our facilities working
18	with the local power companies, and everything,
19	making sure the proper grid is in place to do that.
20	But the main thing I think is, really,
21	I think, the power of being able to run those
22	trailers, to have the power and the horsepower to be
23	able to move, and when you're thinking about 70,
24	80,000 pounds moving.
25	And, then, I think this is something

we'll overcome anyway, but it's still an issue, is 1 2 the certain terrains of the country and the weather, 3 weather that's still cold and everything, that still 4 seems, you know, to be an issue with batteries at 5 this point. 6 Okay. CHAIRMAN VALERI: Thank you. 7 CHAIRWOMAN CONNOLLY: Okay, thank you. 8 Thanks, Chris. 9 MR. LUTICK: Thank you. 10 CHAIRWOMAN CONNOLLY: Okay, next speaker is Gail Toth, the Executive Director of the 11 12 New Jersey Motor Truck Association. 13 Gail, are you with us? Gail? 14 DR. BIELORY: Is Gail there? 15 CO-CHAIRMAN EGENTON: Gail, you're muted, by the way. Gail, you're muted, so unmute 16 17 yourself. 18 DR. BIELORY: There you go. 19 CO-CHAIRMAN EGENTON: Still muted me. 20 MS. JONES: We had trouble doing it 21 the other day. Don't forget that you might have to 22 call in. Oh, take yourself off of mute on your 23 phone, star six. 24 MS. TOTH: Can you hear me now? 25 DR. BIELORY: Yes. You have to make

it louder. 1 2 MS. TOTH: Good. 3 DR. BIELORY: Okay. 4 Okay. Is it good enough? MS. TOTH: 5 DR. BIELORY: Yes, yes. Thank you. MS. TOTH: Okay. Sorry about that. 6 Ι 7 have a problem with my computer mic. 8 Well, I'd like the thank everybody for 9 inviting me, particularly the Clean Air Council, to 10 participate in this event. I participated in one 11 about ten years ago. 12 My topic today is: Heavy-duty 13 trucking today and tomorrow, particularly at the 14 port. A lot of my presentation was stolen by all 15 the previous speakers. I was going to focus on the 16 Truck Replacement Program. So, I am not going to 17 bore you with all the same details, and I'm going to 18 point out some of these that may not have been 19 covered. 20 Overall, we believe that the port 21 replacement plan was fairly successful in 22 systematically finding a pattern or a pathway to 23 reduce the age of the trucks that are servicing the 24 port, to the point that 66 percent of the trucks now 25 at the port are considered green, are at least in

2007 or newer. 1 2 And what's very impressive is that 3 about 40 percent of those newer green trucks are 4 actually the 2010 engine models. So that's the most 5 stringent model you could have, so that's a real 6 positive. The other thing, too, is that as an 7 8 industry, the trucking industry itself, many of our 9 fleets, not just at the ports, but throughout the 10 state and throughout the nation have been converting 11 over from the older trucks to the newer, more efficient and cleaner trucks. 12 13 And it's really been a very exciting 14 time in the trucking industry in terms of our 15 There's been enormous innovations by equipment. 16 truck manufacturers to design equipment that's near 17 zero emissions that are efficient, they're 18 affordable, and they're already widely available. 19 As Allen Schaeffer said this morning, 20 the development of the renewal biodiesel fuel can 21 also have enormous impacts across the spectrum of all diesel-powered vehicles, and it would be 22 23 immediate. So that's really something I think we 24 should be looking into having access to in New 25 Jersey.

1	Currently, 41 percent of all the
2	diesel trucks in New Jersey are near zero emissions
3	already. That means they are 2010 or newer.
4	I'd also like to mention that
5	heavy-duty trucks make up approximately six percent
6	of the road usage at any given time, and up to about
7	ten percent during rush hour. In other words, we're
8	sharing the road with 90 percent of other different
9	types of vehicles than ourselves.
10	Nationally, according to The Diesel
11	Technology Forum's analysis of the 2018-2019
12	vehicles in operation, they studied Class 3 to Class
13	8 vehicles, and 43 percent nationwide, or of the 11
14	million diesel-powered commercial vehicles on U.S.
15	roads, that's box trucks to an 18 wheeler, are now
16	powered with the newest generation of diesel
17	technology, which is the 2010 engine model year.
18	These engines reduce the emissions of PM and NOx by
19	98 percent.
20	As we see, and I'm hearing, and we
21	know that New Jersey is now focusing on the
22	electrification of trucks. And in reality, at least
23	for the heavy duty, and I'm talking about the Class
24	8 tractor-trailer combo, we're really not there
25	there yet.

There are a lot of electric trucks 1 2 that are in pilot programs, there's a lot of 3 promise. We're just not there yet. 4 A lot of the issues that we're having 5 or we're seeing is a big concern over the fact that any of the trucks so far that are out there don't 6 7 appear to be able to exceed 250 miles. Our guys 8 have to exceed more than 400. So, right there, 9 there's a problem. Also, the differences in weather, 10 11 whether it's very hot or very cold, it has an impact 12 on the charging capability of the batteries. The 13 weight of the batteries currently, also, is a very 14 major concern, some of them weighing over 2,000 15 pounds. 16 The cost per truck, which I'll go into 17 in a moment, and the lack of a charging infrastructure, also remain some obstacles. 18 But 19 there are trucks that are electric that are working, 20 still a lot of garbage trucks, smaller box trucks, 21 where it works well. We have trucks that go into New York 22 23 City that were part of a program and were able to 24 get trucks that were part diesel, part electric. So 25 combo, you know, dual fuel, or dual-processing. So

that helps as well. 1 2 At this point of our timeline of 3 electric trucks, the Class 8 electric truck, we were 4 aware of one that is available, BYD truck. We looked at the 2019 day cab. This particular day cab 5 6 would run \$436,296, and then there's \$95,629 for 7 fast-charging equipment. And then there's a federal 8 excise tax on this equipment at 12 percent, which 9 comes to \$52,320 for the investment of \$584,000 per 10 truck. 11 And note on this particular truck, 12 it's a port drayage truck designed for very short 13 hauls, has a charge range of 125 miles. And the 14 battery on that truck would need to be replaced in a 15 approximately ten years. A cost of that is unknown. 16 So you could see that the expense here 17 is huge. We definitely need a awful lot of help if we were going to go down that road. And we don't 18 have a lot of people that manufacture that, that 19 20 produce that like on an assembly line at this point 21 in time. The average cost of a near-zero 22 23 emission to our Class 8 truck is about \$150,000, 24 plus the federal excise tax, which is \$18,000, which 25 brings it to about \$168,000.

This is far more expensive than task 1 2 trucks, but a lot of it has to do with all the 3 technology we have on these newer trucks that makes 4 them cleaner and more efficient. 5 The trucking industry at this time is б requesting relief, if even only temporarily right 7 now, in congress, to reduce or give us a holiday for 8 the federal excise tax. And I'm really pleased that 9 our New Jersey congressional delegation is fully in 10 support of that effort and working hard to, 11 hopefully, get us that reprieve so we can invest 12 more in new trucks. 13 Putting things into perspective, we're 14 on the right road. I think escalating the 15 replacement of the trucks to near zero emissions can 16 give us immediate results. 17 We are recommending, I would love to 18 see if there was a possibility of grants that could 19 be given in the amount of \$35,000 towards the 20 purchase of 2014 or newer trucks to help accelerate 21 the replacement of the remaining older trucks at the 22 port. 23 This investment would have an 24 immediate impact on the reducing emissions, as 25 opposed to the electric heavy-duty trucks. They're

not going to be viable right now, for some years to 1 2 These trucks are loaded with many new safety come. 3 features, as well, so that also improves highway 4 safety. 5 The reason why I want to focus on the 6 2014 trucks is because these models have increased 7 fuel efficiency mandated by the government for the 8 manufacturers, and in this case then helps us reduce 9 our greenhouse gases. 10 We also recommend, we do have a 11 Volkswagen consent order that's managed by the New 12 Jersey Department of Environmental Protection, where 13 some of our members have been able to utilize that 14 to get grants for electric yard jockeys. 15 These are electric diesel trucks that 16 are at the port, or in the port proper area, that 17 don't leave the terminal. So it's not an issue 18 about recharging. The charger is right there. 19 This equipment usually has a 12-hour 20 charge span for it, and it runs about \$371,500 for 21 one yard truck. But that's totally electric. Ιt could replace the diesel trucks, the diesel yard 22 23 trucks that they're currently using. 24 So I think that we're headed in the 25 right direction. I think grants are definitely

going to be needed. 1 2 As we go down the road on 3 electrification, we've got a lot of things we have 4 to adjust first, and I think a lot of it is the 5 chicken and the egg, what came first. We need the 6 infrastructure, or, you know, do you need the 7 electric truck. So, hopefully, we do both at the 8 same time. 9 Other than that, I'd like to thank you 10 all for allowing me to make my presentation, and I 11 hope I did it fast enough so that, being the last 12 speaker, I didn't hold you up. So, thank you very 13 much. 14 CHAIRWOMAN CONNOLLY: Thank you. 15 That's very fast, thank you. Thank you, Gail. 16 Any questions from the Council members 17 for Gail? No, I see none. 18 Thank you, Gail, really appreciate it. 19 MS. TOTH: Thank you. 20 CHAIRWOMAN CONNOLLY: All right. 21 We're going to go onto the General Public Comment 22 Period. 23 I just want to remind everyone that, 24 due to the time constraints, we have to limit the 25 oral comments to three minutes. I'm going to give

you like a verbal one-minute warning. 1 2 And, again, I just want to remind you 3 that written commentary will be open until August 4 14th, so you can submit written comments until that 5 time. So I think that our first commenter is 6 7 Bernice Tomkins. Are you there, Bernice? 8 Bernice, are you there? (Pause.) No. 9 Maybe we lost Bernice. We can go back to her. 10 The next speaker, or the commenter is 11 (Pause.) Doug O'Malley. Doug, are you there? 12 Maybe some of them are going to come back on at 13 3:20. 14 (Simultaneous cross talk.) 15 CHAIRWOMAN CONNOLLY: Is that Doug? 16 MR. O'MALLEY: Can you see and hear 17 me? 18 CHAIRWOMAN CONNOLLY: I hear you. 19 There, now I see you, there you go. 20 MR. O'MALLEY: All right, super. And, 21 all right, always fun dealing with the tech, as we 22 talked, about. 23 So, I guess I just wanted to start off 24 by saying thank you to all of the speakers that 25 we've heard from throughout the course of the day.

1 CHAIRWOMAN CONNOLLY: Oh, Doug, I'm 2 sorry, can you also say your affiliation, also, for 3 the court reporter? 4 MR. O'MALLEY: Of course, yes. Doug 5 O'Malley, Director of Environment New Jersey. We 6 represent more than 20,000 due-paying citizen 7 members across the state. 8 And, then, for purposes of this 9 comment, I think it's important to note, too, that Environment New Jersey is a member of ChargEVC and I 10 11 serve on the board as their president. 12 So let me just start off my comment by 13 saying, thank you to the Clean Air Council for 14 hosting this presentation; and, also, obviously, 15 thank you to the wide variety of presenters. I had 16 a chance to hear many, if not all of them. 17 And as, I believe, Mike Egenton from 18 the chamber and also a long-time Clean Air Council member referenced, this is not the first time that 19 Council has heard about this particular issue about 20 21 air quality around the ports, in the port and around 22 the port. 23 Obviously, we're in a moment of kind 24 of true reckoning in this country on a whole host of 25 issues, both on public health and, you know, the

1	dire anniversary that we, I can't say celebrate, but
2	we marked yesterday, with 150,000 deaths from
3	COVID-19, the increasing reality that air pollution
4	served as a vector for the spread of the disease;
5	and, also, just an acknowledgement that Black and
6	Brown Communities, especially around the port, have
7	unduly suffered from air pollution, and those Black
8	and Brown Communities have been hurt the hardest and
9	impacted the most by COVID-19.
10	So I just think it's, you know,
11	important to kind of reference the moment that we're
12	in at the outset.
13	I also just wanted to thank the
14	comments from Dr. Nicky Sheats, as well, from the EJ
15	Alliance, as well as Melissa Miles from the
16	Ironbound Community Corp., in addition to Amy
17	Goldsmith with the Coalition for Healthy Ports and
18	Clean Water Action.
19	And I wanted, I guess, to highlight a
20	little bit of a back and forth Melissa was talking
21	about and I believe, you know, Dr. Bielory was
22	referencing, you know, this challenge of, you know,
23	how soon should we move toward electrification,
24	right. Shouldn't we be advocating for, you know,
25	cleaner diesel technologies? And that's, obviously,

something that Council has thought about for a 1 2 while, for more many years. 3 You know, the simple reality is we are 4 moving beyond a world of kind of building a better 5 mousetrap. CHAIRWOMAN CONNOLLY: 6 Hey, Doug, one 7 more minute, okay? Sure. 8 MR. O'MALLEY: 9 We're moving past a world of a better 10 mousetrap for the internal combustion engine. We're 11 moving towards an electrification future that is 12 going to come faster than any of us perhaps realize. 13 And it's critical to note that we 14 can't depend solely on the private sector and that 15 innovation. We have regulatory mandates through not 16 only the MOU that New Jersey joined, but also the ED 17 bill just signed this January which has an onus on 18 DEP to come up with a study by the end of this year 19 on how we're dealing with medium- and heavy-duty 20 vehicles. 21 That being said, we need to look at what California is doing. California is advocating 22 for some of the strongest mandates in the country to 23 24 move towards electrification of diesel trucks, 25 especially around their ports.

And when we look at air quality, when 1 2 we look at the impact to communities like Newark 3 right now, you know, there are huge public health 4 costs that are not being taken into consideration. 5 I guess I just wanted to end with just 6 the health analysis from Columbia University on the 7 electrification of one city bus. That health 8 savings is \$150,000 with the electrification of one 9 NTA bus. 10 So, obviously, we're advocating for 11 the electrification of New Jersey Transit buses, but we need to make sure that we're focusing on the 12 13 communities that are unduly burdened. 14 We heard of the impacts of PM2.5 and 15 Andrew wheeler ignoring the science. That level 16 should be lower, and that means that New Jersey will 17 be out of compliance on PM2.5. 18 We have an unacceptable level of health impacts from our air pollution, and in the 19 20 port area, especially. 21 You know, this is a sacrifice. And Melissa and her colleagues at the Ironbound 22 23 Community Corp. can speak to this, you know, with 24 much more intent, you know, much more intent than I 25 can.

1 But anyone that hasn't gone on a port 2 tour on the Clean Air Council, I strongly encourage 3 you to reach out to Clean Water Action, reach out to 4 the Coalition for Healthy Parts, reach out to the 5 Ironbound Community Corp. We have communities that 6 are living with this every day. And, most 7 importantly, we have a solution to deal with it, and that's electrification. 8 9 And it's imperative upon not only this 10 council, but DEP, to work to start to adopt the 11 solutions in their report, to work to move forward 12 with an electrification plan, and mandates for our 13 medium- and heavy-duty fleets across the state, but 14 especially in communities surrounding the port. 15 Thank you very much. 16 CHAIRWOMAN CONNOLLY: Thank you, Doug. 17 Next is Benjamin Saracco. Are you 18 there, Benjamin? 19 MR. SARACCO: Yes. Can you hear me? 20 CHAIRWOMAN CONNOLLY: Yes. 21 MR. SARACCO: Нi. 22 CHAIRWOMAN CONNOLLY: Say your 23 affiliation, also. 24 MR. SARACCO: So I serve on the city 25 board in the City of Camden, the Shade Tree Advisory

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1	Board. I also volunteer on a local group called
2	Camden for Clean Air that advocates for cleaner air
3	in the city.
4	Thank you for all the interesting
5	presentations and the work that your members do on
6	this organization.
7	One of the things I just wanted to
8	call in and stress is that I feel like the DEP can
9	have more resources and more funding to do more
10	public outreach in environmental justice communities
11	in the State of New Jersey.
12	So many of my neighbors don't know
13	about 1-877-WARNDEP. They don't know about air
14	permitting. They don't know that there's a single
15	air sensor that exists in South Camden.
16	And a lot of this information, while
17	it's great and the DEP does this fantastic mapping
18	websites and all this data out there, you really
19	have to be almost a public health expert or someone
20	that's really, you know, in one of those fields to
21	know how to find this information and how to
22	interpret it.
23	And I feel like there's a big lack of
24	manpower and programs out there to basically connect
25	your everyday residents, especially black and brown

residents, environmental justice communities, with 1 2 these resources, so they know when to report, like, 3 visible emissions, or fugitive emissions. 4 You know, I feel like the DEP, 5 particularly their air permitting office, does a 6 fantastic job of communicating with industrial 7 polluters on how to submit applications, all of the 8 guidelines. 9 But if you're an everyday person, like a single mother in Camden, who has two kids with 10 asthma and works two jobs, you don't really know, 11 you know, how to make a complaint about a strange 12 13 smell or, you know, visible emissions coming out of 14 one of the many facilities that exist down here. 15 So, furthermore, I'd like to applaud 16 the environmental justice groups that did speak on 17 this call, and just, secondly, the importance of cumulative impacts of health and environmental 18 impacts on these communities. 19 20 Second, I'd like to mention there's a 21 from proposed microgrid planned in our city that relies on the number one industrial air polluter in 22 23 the entire county, a Covanta waste-to-energy 24 incinerator. A trash incinerator, is what is. 25 I'd like the DEP to stop subsidizing

trash incineration. We need electricity, but 1 2 burning trash and contributing to health disparities 3 in these communities is not the way to do it. 4 CHAIRWOMAN CONNOLLY: Okay, Ben, one 5 more minute, okay? Sure. 6 MR. SARACCO: 7 The last comment I'd like to make, I 8 looked at the membership of this board, and, please, 9 I hope no one takes offense to this, but I'm surprised that the public members of this board, 10 there's a few representatives from fossil fuel 11 industries, either lobbyists or attorneys that are 12 13 representing their interests. 14 There's way more representative 15 people, people of color, more women. Looks like 16 it's almost entirely white men, aside from a few 17 white women. Why not get, say, you know, a member 18 of the, say, NAACP that focuses on environmental 19 justice? Why not get someone that's involved in 20 public health more? 21 I see you have an MD, and some people, 22 a representative from the Department of Public 23 Health. But these issues are health issues, and 24 there's no reason that these connected industrial 25 representatives from these for-profit companies that

1 are representing the polluters themselves should be taking up these spots, these public spots of your 2 3 board. 4 Please reconsider the membership of 5 your board, make it more diverse, and have people that are actually representing the health concerns 6 7 of people of color in this state which are so 8 disproportionately affected by this pollution. 9 Thank you. 10 CHAIRWOMAN CONNOLLY: Thank you. 11 Our next commenter is Susan Herman. 12 Are you there, Susan? 13 Hello. Can you hear me, MS. HERMAN: 14 Heidi? 15 MS. JONES: Yes. 16 MS. HERMAN: Yes, can you hear me? 17 CHAIRWOMAN CONNOLLY: Yes, we can hear 18 you. 19 MS. HERMAN: Sue Herman. 20 CHAIRWOMAN CONNOLLY: State your 21 affiliation. MS. HERMAN: Yes, Residents for Retail 22 23 Traffic Solutions, Inc. 24 Our comments are about Triton-Mercer 25 Airport, also known as TTN. Our organization along

with Bucks Residents for Responsible Airport 1 2 Management and Mercer County based grassroots groups 3 has been concerned with the expansion of TTN for 4 over 20 years. 5 TTN expanded under the radar throughout these years by approving and implementing б numerous individual projects, whose whole equal 7 8 large scale expansions. 9 By dividing the expansion into 10 segments, the airport avoided doing a cumulative and 11 expansive environmental impact statement that would 12 truly measure its negative impacts on all effective 13 Mercer County and Bucks County municipalities. 14 We're alarmed by the current number of 15 projects that TTN has sought approvals for, without 16 the regard to cumulative impact on the environment, 17 surrounding communities and public health. There are at least 25 individual 18 19 projects that have either been approved or in the 20 process of seeking approval, or are planned in the 21 near future and supposedly unrelated or independent 22 improvement. 23 These projects are outlined and proven 24 to be related and interdependent in the master plan 25 of 2018, which clearly identifies a proposed

1	terminal expansion, the runway protection zone, and
2	development of parcel A of the Naval Air Warfare
3	Center, where there are known "PESO's" (phonetic),
4	DOC's, mercury and other contaminants.
5	The residents who have been and will
6	continue to be the hardest hit by the airport
7	success is skirting around doing a cumulative
8	environmental impact statement for those residing in
9	Ewing Township and the City of Trenton.
10	In Dr. Sheats' presentation, he
11	described the vulnerability of communities such as
12	these and our obligation to study cumulative impacts
13	and practice environmental justice and social
14	justice.
15	It's unconscionable that New Jersey
16	politicians ignored our September 2019 letter which
17	stated that residents are worried that the reckless,
18	unchecked expansion of TTN will cause irreparable
19	harm to our health, safety and welfare that will
20	include but not be limited to potential PECO's
21	contamination of our water supply.
22	PECO's contamination of drinking
23	water is linked to harming children's neurological
24	development, kidney cancer and testicular cancer.
25	CHAIRWOMAN CONNOLLY: Susan, one more

1 minute.

2 MS. HERMAN: Okay. The health impacts 3 of the coronavirus combined with those caused by air 4 pollution and contaminated drinking water will be 5 devastating.

Today, we implore the New Jersey Clean 6 7 Air Council to vigorously oppose the expansion plans 8 of the new Trenton-Mercer Airport, including all 9 individually considered projects that will 10 potentially increase air and water pollution in New 11 Jersey and Pennsylvania.

12 Thank you for the opportunity to 13 We will be submitting this, a written comment. 14 version of this oral testimony included in our 15 written testimony, and we will also include our 16 September 30th, 2019 letter titled: Imminent 17 Proposed Expansion of Trenton-Mercer Airport, New 18 Jersey and Pennsylvania Residents Living in 19 Municipalities Surrounding TTN Worry that It Will 20 Cause Irreparable Harm to Their Health, Safety and 21 Welfare. The harm is likely to include, but not to 22 be limited to the irreparable damage to the water 23 supply. 24

CHAIRWOMAN CONNOLLY: Okay, thank you,

25 Susan.

1 The next commenter is Holly Bussey. 2 Holly, are you there? (Pause.) Holly? 3 We'll come back to her. 4 How about Paula Rogovan? MS. ROGOVAN: 5 нi. CHAIRWOMAN CONNOLLY: Is this Paula? 6 7 MS. ROGOVAN: Yes. 8 CHAIRWOMAN CONNOLLY: Okay, great. 9 State your affiliation, as well. 10 MS. ROGOVAN: Hi, I'm Paula Rogovan, 11 Chairperson of the Coalition to Ban Unfit Oil 12 Trains, and a member of the Don't Gas the 13 Meadowlands Steering Committee, involves 50 14 organizations in Northern New Jersey. 15 I want to plead with you to do 16 everything in the power granted to you by the State 17 of New Jersey to stop the New Jersey Transit Fracked 18 Gas Power Plant that is proposed to be built at the 19 site of Koppers Coke in the Meadowlands in Kearny. 20 It would use over 410 million from the 21 federal Hurricane Sandy resilience grant and some New Jersey monies. Using fossil fuels for 22 23 Sandy resilience is rather absurd. 24 The New Jersey Transit power plant 25 would be in the blast zone of the CSX trains, which

carry volatile Bakken crude oil. 1 2 Some of you know about LaMagantic 3 where a train carrying Bakken crude derailed and 4 exploded killing 47 people. These trains will be carrying at some 5 б point liquified natural gas, which the Trump 7 administration has fast-tracked for rail. 8 In fact, the whole port region which 9 you are discussing today is in the blast zone, not 10 only the proposed power plant, but the port region you're talking about is in blast zone of the CSX 11 12 trains. 13 These trains carry hazardous materials 14 and put millions of us in the blast zone at great 15 risk, especially with rail companies in charge of 16 their own inspection. 17 Rail crossings are in bad repair and we've had to fight for them, even during this 18 19 period, to be repaired. 20 We're in danger due to the very 21 hazardous materials they carry and the federal roleback of safety regulations. These need to be 22 addressed by Council. 23 24 CSX trains go through our communities 25 in Northern New Jersey and Bergen where I live,

through Newark, Jersey City and other cities where 1 2 there are large environmental justice communities, 3 as well as they stop and idle often right next to 4 the port. They go through and idle their diesel 5 engines day and night. I know from experience that CSX has 6 7 made very limited attempt to address the issues of 8 their diesel engines and pollutions as they go 9 through or as they idle in our communities. 10 CHAIRWOMAN CONNOLLY: One more minute, 11 please, thank you. 12 MS. ROGOVIN: Toxic pollution from the 13 traffic plant would primarily impact environmental 14 justice communities in Kearny, Newark, Jersey City 15 and Hoboken and the whole port area. 16 You know that the American Lung 17 Association already rated this region as F for 18 ground-level ozone or smog. As a teacher of young children for 44 years, now retired, I'm particularly 19 20 concerned about the impacts of ground-level ozone on 21 the children, our future. The New Jersey power plant, while not 22 23 directly in the port, the ground-level ozone and 24 other pollution would seriously impact port communities. It would cause horrendous health 25

1	problems, diabetes, respiratory diseases and other
2	things that make people particularly vulnerable to
3	COVID-19. And we've seen proof of that, tragically,
4	in the last period of time.
5	We call on you, we've called on New
6	Jersey Transit to take a stand and they have not
7	done that yet. But we have an alternative. We have
8	an alternative called renewable energy rail. It's
9	been developed with people from the renewable energy
10	industry, from community residents and many other
11	people. And we want this renewable energy rail,
12	solar and solar battery and perhaps the hybrid
13	system of renewable energy to be considered.
14	We absolutely need your help to
15	oppose, oppose the New Jersey Transit Fracked Gas
16	Power Plant, and we plead with you to take a stand
17	on this. Thank you.
18	CHAIRWOMAN CONNOLLY: Thank you,
19	Paula.
20	Next is Sam DiFalco.
21	MS. DiFALCO: Hi. Can you hear me?
22	CHAIRWOMAN CONNOLLY: Yes.
23	MS. DiFALCO: Great. Thank you.
24	Hi. Thank you for the opportunity to
25	speak today. My name Samantha DiFalco. I'm with

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1	Action, on behalf of our 70,000 members and
2	supporters in New Jersey, and the Don't Gas the
3	Meadowlands Coalition, which we are a part of over
4	60 organizations.
5	Without a doubt we need to promote
6	clean air throughout New Jersey, especially in the
7	areas that have long had to bear the pollution
8	burdens in our state.
9	The low-income Black and Brown
10	communities around North Jersey's ports for
11	generations have had some of the worst air quality
12	in the country.
13	The high rates of asthma and COPD and
14	other chronic lung disease are worse in these areas
15	of our state. And now the coronavirus pandemic has
16	brought a new urgency for cleaning up the air in all
17	of our New Jersey communities, especially in those
18	who have long had an unfair pollution burden.
19	One thing that Governor Murphy can do
20	today to prevent our air quality from getting worse
21	in the environmental justice communities around the
22	ports is by ordering its agency NJ Transit to stop
23	their proposal for a new fracked gas power plant in
24	the Kearny Meadowlands to power the transit grid
25	microgrid project that they have proposed to promote

transit resiliency. 1 2 This power plant will add an 3 additional 576,000 tons of greenhouse gases annually 4 into our air, which includes lung-destroying 5 ground-level ozone precursors and particulate matter 6 2.5. 7 These pollutions will add to the 8 already dangerous levels of air pollution in 9 communities around North Jersey's Ports Newark, 10 Elizabeth, Jersey City and Bayonne. 11 It is understandable that New Jersey Transit wants to build resilient infrastructure to 12 13 ensure that they can keep their trains running, 14 regardless of the conditions of the central grid. 15 But state-of-the-art microgrids are 16 now being built using a blend of renewable 17 technologies and battery storage and are safer, more economical and more reliable than those powered 18 solely by fossil fuels. 19 20 We heard today many solutions that 21 will help right the damages to these communities 22 that have occurred for generations from this huge 23 pollution burden. Let's not go backwards by 24 introducing major new sources of fossil fuel 25 pollution in our state.

Hope you'll all join us in calling on 1 2 Governor Murphy to order NJ Transit to stop this 3 project and direct the huge amount of taxpayer money 4 that will pay for it into a renewable alternative. 5 Thank you. CHAIRWOMAN CONNOLLY: Great. Thank 6 7 you. Thank you, Samantha. 8 The next commenter is Joe Balstranian 9 (phonetic). Sorry if I'm not saying that correctly. 10 Joe, are you there? 11 MR. BALSTRANIAN: Yes, thank you. Can 12 you hear me? 13 CHAIRWOMAN CONNOLLY: Yes. 14 MR. BALSTRANIAN: Oh, great. Thank 15 you. 16 So you've heard a couple of the 17 speakers mention this proposed plan by New Jersey 18 Transit. 19 CHAIRWOMAN CONNOLLY: Joe, could you 20 just give your affiliation? 21 Sorry, yeah, I have MR. BALSTRANIAN: no affiliation. I'm a volunteer for the number of 22 23 organizations, but mainly just working in an 24 unaffiliated industry by day, family and volunteer 25 stuff by night.

1	So, but I wanted to call because what
2	the issue is with this proposed 140-megawatt power
3	plant, pollution power plant, gas-fired power plant
4	by New Jersey Transit, the issue is, if built, it
5	negates years of efforts by the Clean Air Council to
6	clean up the air in places where it's hurting people
7	the most, where air pollution is already worst.
8	So what we really need is, hopefully,
9	people aren't just, you know, listening to public
10	comments and just assuming that they're just
11	run-of-the-mill types of things.
12	We need people on the Clean Air
13	Council and to look and say, Do I want my work and
14	my years of effort to improve things negated by
15	something that's just coming out of left field,
16	that's completely under the governor's control,
17	because he controls the New Jersey Transit board and
18	he controls whether a very big 140-megawatt
19	gas-fired power plant is built, and will pump almost
20	600,000 thousand tons of carbon, and a lot of
21	nitrous oxides creates ground-level ozone, into
22	Hudson County, Essex County, Newark? Does he, do we
23	want that?
24	Hudson County is almost 60 percent
25	black and Hispanic. Essex County is much more than

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that, 66 percent black and Hispanic. 1 2 What we're talking about, and I 3 haven't heard the word "racism" used in a lot in the 4 last day, maybe it's not considered polite, but just 5 by factual definition, building a major new unnecessary pollution source piling into the lungs 6 7 of majority black and Hispanic people, it's racist 8 policy. And I don't think there's any way around 9 that. 10 What we really need is for someone, people on the Clean Air Council, to talk to the 11 12 governor's office and say, this is not right, it's 13 not necessary. 14 New Jersey Transit has not seriously 15 considered the hybrid potential, not at all. They 16 dismissed the hybrid solutions, solar and battery, 17 other power sources which can combine --18 CHAIRWOMAN CONNOLLY: Joe, just one 19 more minute, sorry. 20 MR. BALSTRANIAN: -- yeah, which can 21 combine with other existing power sources. When I hear the concerns, I hear the 22 23 concerns that there's industry representatives, too 24 many industry representatives, too many whites on this council. 25

1 We're, basically, we are perpetuating 2 decades and decades of racist policy. So we call 3 it, oh, it's disproportionately impacting other, you 4 know, people of color, it's considered 5 environmental, it's an environmental justice issue. What we're talking about is we've got 6 7 to counter racism rates in the area of pollution. 8 So one place we can start is, let's 9 just not build this New Jersey Transit power plant. 10 We need to talk to the governor's office. This 11 shame, this obscenity of an idea is really on him, and it's on us if we don't do something about it. 12 13 Thank you for the time. 14 CHAIRWOMAN CONNOLLY: Thank you, Joe. 15 I'm going to go back to the other two 16 Bernice Tomkins, I believe she's here commenters. 17 now. 18 MS. TOMKINS: Can you hear me okay? 19 CHAIRWOMAN CONNOLLY: Yes, I can hear 20 you. MS. TOMKINS: Okay, great. 21 Thanks so 22 much. Thank you for coming back to me, I appreciate 23 it. 24 So my name is Bernice Tomkins, and I 25 work as the campaign organizer for Jersey Renews.

1	And we are a cross-sectional coalition that
2	represents more than 60 different states, labor,
3	environmental and community groups. And we focus on
4	clean energy and clean jobs, climate action, public
5	health and good pro-union, pro-worker policies.
6	And one of the things I wanted to say
7	today is that living through a respiratory pandemic,
8	as we are doing right now, should serve as a
9	reminder to the Clean Air Council and all of our
10	decision makers is that air pollution has
11	life-or-death consequences.
12	When we know that air pollution
13	exposure is a risk factor for COVID-19, there's no
14	excuse for us to say that we're putting public
15	health first and not to act now to protect the air
16	we breathe and to protect the lungs of workers and
17	of residents who live in port-adjacent communities.
18	So the good news is that right now
19	New Jersey has multiple opportunities to really
20	making investments in cleaning up our air, and we've
21	heard about those today.
22	Money is waiting to be allocated from
23	the RGGI fund, the Regional Greenhouse Gas
24	Initiative, and also from the Volkswagen settlement
25	fund.

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And we're in a moment of health, 1 2 climate and economic crisis, these three 3 co-occurring crises, and we have a responsibility to 4 use this money in a way that will save the most 5 lives, and will also put the most people to work in 6 the communities that have been hardest hit by the 7 COVID-19 and economic crises. 8 We have a responsibility to address 9 both the health and the economic crisis and the 10 climate crisis together, and what means is focusing on electrification. 11 We also know that New Jersey just 12 13 joined this really ambitious 15-state MOU which sets 14 truck electrification targets for 2030 and 2050. So 15 we have an opportunity to make these commitments 16 count by ensuring that the benefits of 17 electrification are felt widely and equitably in New 18 Jersey, and there's a number of different ways that 19 we can do that. 20 We should allocate 85 percent of 21 Volkswagen settlement funding to cities in New 22 Jersey, which have by far the highest concentrations of air pollution and respiratory illnesses. 23 We 24 should focus both Volkswagen settlement and RGGI 25 funds on public sector projects.

1	So, examples of these are New Jersey
2	Transit buses, school buses and municipal fleets of
3	medium- and heavy-duty vehicles, like garbage
4	trucks.
5	We should use the Volkswagen
6	settlement funds primarily for electrification, not
7	nor other, quote, unquote, clean transportation
8	technologies.
9	CHAIRWOMAN CONNOLLY: Just one more
10	minute, thank you.
11	MS. TOMKINS: Okay, thank you.
12	We should prioritize and accelerate
13	both Volkswagen and RGGI funding of electrification
14	projects specifically in environmental justice
15	communities, and particularly those that are
16	adjacent to ports and highways and trucking
17	corridors that right now receive the greatest burden
18	and least benefit from our transportation sector.
19	And we should ensure that
20	electrification projects really do create good union
21	jobs and new opportunities for workers in New Jersey
22	by pursuing local hiring through community benefit
23	agreements, by contracting with union companies for
24	buses and trucks, and by implementing public
25	procurement policies that require domestic and

regional manufacturing when possible. 1 2 So doing electrification right can 3 propel a just and green recovery, which is what New 4 Jersey needs now. Not only can it help us recover 5 from this crisis, it's one of many opportunities 6 that we can seize to actually shape the future for 7 our state where everybody is taken care of, and where the lives and health of all our residents are 8 9 valued, we all have access to high-paying and 10 dignified work, and our communities are safeguarded from climate calamities. 11 12 CHAIRWOMAN CONNOLLY: Thank you. 13 MS. TOMKINS: Thank you so much. 14 CHAIRWOMAN CONNOLLY: I'm going to go 15 back to Holly to see if she's here, Holly Bussey? 16 Holly, are you there? No, okay. 17 All right, well, that's all of your 18 commenters. I want to just say thank you to all the 19 presenters and to our commenters. 20 We got a lot of great information 21 They're going to be incorporated into our today. 22 written report that we give to the DEP Commissioner. 23 And I wanted to also tell everybody 24 that all of the presentations are going to be posted 25 on the Clean Air Council website, so you'll be able

to see those there. 1 2 And, then, also, that written comments 3 still will be accepted until August 14th, and you 4 can submit them through the online portal from the Clean Air Council's website, or you can email them 5 6 directly to Heidi, which is Heidi.Jones, H-E-I-D-I dot Jones, J-O-N-E-S, @dep.nj.gov. 7 8 So you can either just email them 9 directly to Heidi or submit them through the online 10 portal on the Clean Air Council's website. They'll 11 get to Heidi, and we'll be able to incorporate those 12 into our report. 13 So, I also just want to turn it over 14 to Mike to say a few words. Mike, are you there? 15 CO-CHAIRMAN EGENTON: I'm here, and 16 I'll be short. I wanted to thank you, Maria, in the 17 capacity of acting as our Public Hearing Chair 18 today. You did a great job. You kept everybody on 19 time. So, appreciate collaborating and working with 20 you. And I wanted to thank my fellow Clean 21 Air Council members for participating and hanging in 22 23 there. I know it was a long hearing day. 24 And, of course, I wanted to thank all 25 the testifiers today, both from the public, from the

1	business community, from the environmental groups.			
2	We will take all your feedback and give it ample			
3	consideration.			
4	And with that, let me hand it over to			
5	our Chair John Valeri for any final comments.			
6	John, are you there?			
7	CHAIRMAN VALERI: Yes, I'm there. I			
8	echo both what Maria and Mike said. Maria and Mike,			
9	thank you for doing all this work to make this			
10	successful, particularly during this time.			
11	I want to thank everyone for hanging			
12	in there as well. I think this is a very important			
13	topic. We look forward to reviewing your comments			
14	when we receive them, and everyone's presentation.			
15	I hope everyone has a very healthy and			
16	safe summer, particularly during this time. And I			
17	think with that, we can conclude our hearing. Thank			
18	you, everyone.			
19	(Hearing concluded at 3:42 p.m.)			
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24				
25				

CERTIFICATE 1 2 3 I, Catherine T. McLaughlin, a 4 Certified Court Reporter of the State of New Jersey, 5 do hereby certify that prior to the commencement of 6 the examination, the witness was duly sworn by me. 7 I DO FURTHER CERTIFY that the 8 preceding is a true and accurate computer-aided 9 transcript of the proceedings as taken 10 stenographically by and before me at the place, time and date hereinbefore set forth. 11 I DO FURTHER CERTIFY that I am 12 13 neither a relative nor employee, nor attorney or 14 counsel to any parties involved; that I am neither 15 related to nor employed by any such attorney or counsel; and that I am not interested in the event 16 17 nor outcome of this action. 18 19 20 CATHERINE T. MCLAUGHLIN, Certified Court Reporter of 21 the State of New Jersey NJ C.C.R. License No. XI01861 22 23 24 25

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