

NEW JERSEY CLEAN AIR COUNCIL PUBLIC HEARING

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Leading the Charge: How Government Agencies Slash
Their - Emissions Without Breaking Budgets

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(IN-PERSON & MICROSOFT TEAMS)

New Jersey Department of Environmental Protection
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Public Hearing room
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1 PROCEEDINGS 2 3 CO-CHAIR MR. NEUMAN: All right. 4 Everybody, it is 9:30, if everyone can please 5 take your seats, and we will get going for this 6 year's Clean Air Council hearing. Up first is 7 Chairman Dr. Opiekun. 8 George, could you put up that slide? 9 CHAIR DR. OPIEKUN: All right. 10 Good morning, everyone, and welcome. I'm 11 Dr. Richard Opiekun, Chairman of the Council. 12 Before proceeding with a brief introduction, 13 I'd like to ask our council members to rise and 14 introduce themselves and mention what agency or 15 organization they represent. 16 John? 17 (Colloquy) 18 MR. O'LEARY: Good morning, everyone. 19 John O'Leary from (Indiscernible). Jonathan 20 Masi. And I am a public member. 21 CO-CHAIR MR. NEUMAN: Morning, everyone. 22 Adam Neuman, representing New Jersey State 23 AFL-CIO. 24 MR. CODY: Morning, Edward Cody, IBEW 25 Local 94.	1 this hearing is to gather information and 2 insights on pollution reduction efforts among 3 state agencies through implementation of energy 4 efficiency programs, replacement of inefficient 5 equipment, and reducing -- reduction in energy 6 consumption, consumption and costs. We want to 7 know "what have they done?" 8 According to a fiscal year 2021 State 9 Energy Report, during fiscal years spanning 10 July 2020 through June '21, the State of 11 New Jersey spent just under \$95 million on 12 energy and consumed 4.37 trillion BTUs, marking 13 a six percent reduction in cost and 14 a 23 percent drop in consumption compared to 15 the 2019 baseline. These savings were 16 driven by strategic procurement from third- 17 party suppliers, which alone saved over \$4 18 million by implementation of energy 19 conservation measures under the state's Energy 20 Savings Improvement Plan. 21 Seeing a reduction in expenses is always 22 good, but can more be done? To give you 23 The 35,000-foot view of state holdings, the 24 state's real estate portfolio during that same 25 time was reported to include 450 properties
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1 MR. EGENTON: Good morning, everyone, 2 Michael Egenton. I represent the New Jersey 3 State Chamber of Commerce. 4 VICE CHAIR SCARBOROUGH: Good morning. 5 Kim Scarborough, Vice Chair, and I 6 represent the public. 7 MS. STEIMLE: Good morning. 8 Kelly Steimle, New Jersey Department of 9 Agriculture. 10 MR. LAUMBACH: Good morning. 11 Rob Laumbach, Rutgers School of Public Health. 12 I represent New Jersey American Industrial 13 Hygiene Association. 14 MR. MILGROM: Steve Milgrom. I represent 15 the Department of State here in New Jersey. 16 MS. BROWN: Good morning. I'm 17 Sharon Brown and I'm a public member. 18 CHAIR DR. OPIEKUN: Online with us today, 19 we have Dr. Leonard Bielroy representing the 20 public. And we have several members that were 21 unable to attend today. 22 This year we have chosen "Leading the 23 Charge: How Government Agencies Slash Their - 24 Emissions Without Breaking Budgets" as the 25 topic of our annual hearing. The purpose of	1 and 3,700 buildings totaling over 30 million 2 square feet with the Departments of 3 Environmental Protection, Corrections, 4 Transportation among the largest energy users. 5 Notably five agencies: Treasury, Corrections, 6 Transportation, Department of Health and Human 7 Services were responsible for more than 85 8 percent of total energy usage. While 9 self-administered energy consumption audits are 10 helpful for state agencies developing 11 conservation and energy efficiency initiatives, 12 energy costs rise and sustainability continues 13 to be a priority for agencies who are 14 increasingly seeking ways to reduce 15 consumption, cut costs, and improve operational 16 efficiency. 17 Today we have asked our invited speakers 18 to give us some insights as to what their 19 organizations are doing and what still needs to 20 be done. We'd like to gather information on 21 cost savings, return on investment, timelines 22 for implementing change, and obstacles towards 23 turning ideas into reality to save money, to 24 improve air quality, to reduce emissions so 25 that the residents of New Jersey can breathe

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1 easier and have less exposure to environmental 2 pollution. We encourage our presenters, both 3 invited guests and members of the public, to 4 give us recommendations on what works and what 5 doesn't work. We're going to ask them today to 6 think outside the box. 7 In closing, I can think of no better 8 motivational quote than one Steve Jobs gave to 9 Apple employees back in 1997, during Apple's 10 "Think Different" campaign: "Here's to the 11 crazy ones. The misfits. The rebels. The 12 troublemakers. The round pegs in square holes. 13 The ones who see things differently. They're 14 not fond of rules, and they have no respect for 15 the status quo. You can quote them, disagree 16 with them, glorify, or vilify them. But the 17 only thing you can't do is ignore them because 18 they change things. They push the human race 19 forward. And while some may see them as crazy 20 ones, we see genius. Because the people who 21 are crazy enough to think they can change the 22 world, are the ones that do." 23 Thank you very much. Now Adam will get up 24 and give us the ground rules for today's 25 hearing regarding speakers and logistics.	1 you. 2 Please do not use the chat function for 3 written comments. Written comments can be 4 submitted until May 15, 2026, through on the 5 Council's website to George Berdomas at New 6 Jersey DEP Clean Air Council 2026 Clean Air 7 Council hearing. 8 Our pre-hearing housekeeping 9 announcements: Out of respect for speakers and 10 other attendees, please either turn off or 11 place your mobile phones in silent mode. If 12 you need to take a call, please leave the room. 13 Only Council members will be permitted to ask 14 questions of the presenters and should turn on 15 their cameras when speaking, if remote. 16 Regarding the format of the hearing, the 17 invited experts listed on the agenda will each 18 give a 30-minute formal presentation including 19 questions from Council members. There will be 20 a verbal warning at three minutes and one 21 minute remaining. Public attendees are 22 encouraged to provide public comment at the end 23 of the hearing. 24 If you plan to address the Council, please 25 sign in on the list near the door from which
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1 CO-CHAIR MR. NEUMAN: Thank you, Rick. 2 Good morning, everyone. 3 ATTENDEES: Good morning. 4 CO-CHAIR MR. NEUMAN: Welcome to the New 5 Jersey clean Air Council 2026 Annual Public 6 Hearing: "Leading the Charge: How Government 7 Agencies Slash Their Emissions - Without 8 Breaking Budgets." 9 Nearly all government agencies in 10 New Jersey have evaluated their energy use, 11 cost, vehicle fleets, and facilities and are 12 taking actions to modernize state 13 infrastructure, saving money, and reducing air 14 pollution across government operations. What 15 are the successes, challenges, and outcomes of 16 their planning that might be transferable to 17 other agencies, institutions, and businesses in 18 New Jersey? 19 Moving on to all the fun stuff that Rick 20 mentioned, our audience etiquette for today's 21 hearing, all virtual participants, except the 22 presenter will be muted during presentations. 23 If you have technical questions, meaning you 24 can't be seen, can't hear, etc., please use the 25 chat function and the moderator will assist	1 you entered this morning. Each person will be 2 allowed a maximum of three minutes to speak. 3 You may also provide written comments to 4 Council after the hearing via email until 5 May 15th. Instructions for providing comments 6 may be found at New Jersey DEP Clean Air 7 Council 2026 Clean Air Council Hearing. 8 Continuing on. Council will take comments 9 from the public from approximately noon to 10 12:30. We have reserved this hearing room 11 until 1:00 p.m. If any persons have not 12 testified by 12:30 p.m., please submit written 13 comments to the Council at the end of the 14 invited speaker presentations. We will advise 15 on the number and order of those who have 16 additionally indicated an interest in providing 17 oral comments. We will adjourn prior to lunch. 18 A transcript of the hearing will be made 19 available on the Clean Air Council website at 20 http://www.state.nj.us/depcleanair/slash 21 [sic] several weeks after the hearing. The 22 hearing report with recommendations made to the 23 DEP Commissioner will be available on the Clean 24 Air Council website later this summer. 25 That being said, so it's my honor to

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1 introduce our first speaker. This would be 2 Commissioner Ed Potosnak. Ed Potosnak is the 3 Acting Commissioner of the New Jersey 4 Department of Environmental Protection, leading 5 the state's efforts to protect the environment, 6 public health while growing the economy. 7 CHAIR DR. OPIEKUN: Why don't we wait for 8 the commissioner -- wait until he gets here. 9 (Colloquy) 10 CHAIR DR. OPIEKUN: Adam, three minutes. 11 CO-CHAIR MR. NEUMAN: Understood. 12 CHAIR DR. OPIEKUN: They are on their way. 13 CO-CHAIR MR. NEUMAN: Good morning. 14 Without further ado, it's my honor to introduce 15 Commissioner Professor Potosnak is the acting 16 Commissioner of the New Jersey Department of 17 Environmental Protection, leading the state's 18 efforts to protect environment and public 19 health while growing the economy. As part of 20 Governor Mikie Sherrill's mission to deliver, 21 he is responsible for continuing DEP's progress 22 to advance New Jersey's resilience to flooding, 23 extreme weather, addressing toxic 24 chemicals -- such as PFAs, cleaning up 25 contaminated sites, and importantly,	1 this morning on, you know, what my experience 2 has been in environmental protection from when 3 I was a child. My first science project was 4 actually about the ozone layer and the hole 5 that it was and explaining how 6 chlorofluorocarbons were something cascading. 7 I'm now still thinking about my poster that I 8 used in elementary school. You know, a 9 cascading molecule that then split to other 10 molecules that then went to other molecules, 11 and before you know it, like, everything was 12 just, you know, like a bowling ball rolling 13 down a bowling alley knock out. And it was 14 such a huge problem. 15 But one thing that's important is that we 16 said, hey, we have a problem here and we're 17 going to do something about it. And we're 18 going to smartly move forward with solutions. 19 And today, as we see that problem, while still 20 something we need to manage, we have been able 21 to close that ozone hole. And it's the work of 22 the Clean Air Council and many other 23 partners -- not without folks kicking and 24 screaming. I remember because I was little and 25 went through it.
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1 streamlining the environmental permitting 2 process. 3 Before joining DEP, he served as executive 4 director of the environmental group New Jersey 5 LCV and early in his career taught high school 6 chemistry. A New Jersey native, Acting 7 Commissioner Potosnak graduated from Rutgers 8 University with a bachelor's degree in 9 chemistry and a master's degree in education. 10 Let's give a round of applause for 11 Potosnak. 12 ACTING COMMISSIONER POTOSNAK: Good 13 morning. Good to be here and welcome to this 14 important meeting and the work you do. Very 15 appreciative. 16 A special thanks to the Council Chair 17 Richard Opiekun. We appreciate that. And also 18 to my longtime friend and Vice Chair Kim 19 Scarborough to Adam Neuman and Toby Hanna and 20 the co-chairs of the hearing. I know Toby 21 couldn't be with us today, but we appreciate 22 all their tremendous work and, you know, the 23 ongoing work over the 70 years of the Clean Air 24 Council. 25 I was reflecting as I was thinking about	1 We would never have refrigeration if we 2 solved the ozone problem. The economy would 3 completely stop life as we know it. Food would 4 spoil, we would get sick, hospitals would be 5 overwhelmed. And none of those things happen 6 because people are really smart. And when we 7 put our mind to something, humans can really do 8 anything. 9 And the work ahead of you today and 10 through these systems is just to be reminded 11 that within the push and pull of environmental 12 policy and change and addressing our most 13 pervasive and persistent problems -- that some 14 people don't want to admit that are there, and 15 others admit it -- but they think the solution 16 is too rapid or expensive or unnecessary to be 17 a driving force to balance all those competing 18 interests that we get to the top of that 19 mountain. So we look in the rearview mirror at 20 the problems of yesterday. And those of you 21 who are more senior to me probably remember 22 lots of images of environmental problems of 23 yesterday. 24 I didn't live through burning rivers of 25 pollution or smog that was so thick that it was

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1 coating our buildings. We're beneficiaries of 2 not having that. But we have new challenges 3 today. And so I'm really pleased to be here in 4 the role. It's an honor and privilege to be 5 Acting Commissioner of the Department of 6 Environmental Protection. But I just want to 7 emphasize that everything that we do is a 8 partnership. Councils like this are critically 9 important for us to get the results that we 10 want. And even the businesses that complained 11 back in the day, maybe the refrigeration 12 companies or whatever, they had legitimate 13 concerns. And we need to hear them out and 14 work together on solutions. 15 And I do believe, like the bald eagle and 16 PCBs and solving that. We can solve really any 17 challenge we put our mind to. And your work is 18 critically important for that. So I anticipate 19 you're going to have a very informative session 20 today. You have a great lineup of speakers, 21 including VP's Helaine Barr. She's our 22 Assistant Director of our Division of Climate 23 Change Mitigation and Monitoring. And then, of 24 course, Fish and Wildlife Assistant 25 Commissioner Dave Golden. We've spent a lot of	1 reduce emissions because now you're using less 2 electricity and save money. And we're seeing 3 that play out in so many different places. 4 In addition, the administration is very 5 focused on a number of different initiatives. 6 And so this is not clean air, particularly 7 related, but the Sherrill administration and 8 the Department of Environmental Protection is 9 focused on reducing harmful PFAs, addressing 10 that both at the source, making sure we have 11 good science about how we can handle and treat 12 those. And we're working to reduce and 13 eliminate those forever chemicals that are 14 harming us as a human species. That, 15 interestingly, we created, created a mess. 16 And now we have to use our ingenuity to 17 clean up as well. And we're determined to make 18 New Jersey work better and this Department of 19 Environmental Protection to be more efficient 20 and deliver for families. And that's something 21 they're expecting to do. And we have a lot of 22 initiatives around this in our speeding up 23 permitting. 97 percent of the permits that 24 people audit to the Department of Environmental 25 Protection for are approved from beginning to
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1 time together, which has been enjoyable. So 2 you're in for a treat there. 3 And the topic today is Leading the Charge: 4 How Government Agencies Slash Their Emissions - 5 Without Breaking Budgets. And it underscores 6 our efforts and efforts under the Sherrill 7 administration to bring costs down to make New 8 Jersey more affordable. And we have a really 9 interesting time right in this moment where it 10 was, even before Iran and it was before the war 11 of aggression of Russia into Ukraine, where 12 clean technologies were actually cheaper than 13 ones that were polluted. And the best example 14 of that is solar being the cheapest form of 15 electricity. But scaling those and getting 16 them to a place where we can move away is a 17 challenge. And many other things are like that 18 in the work that we do. 19 So together, the work that we do to move 20 forward on energy efficiency, the cheapest 21 energy is energy you don't use. If you have 22 energy efficiency, and your light bulb 23 uses 1/100th of the electricity that you would 24 have used, that's 99 percent savings. That's 25 money in your pocket. So we can do both,	1 end. And what we're looking to do is shorten 2 that time frame, still protect health, safety 3 and the environment, but not change the outcome 4 just do that quicker. 5 That helps people save time and money. 6 That means less tax bills while you're waiting 7 for an approval. That means the project cost 8 goes down. That means if it's a housing 9 project, it's going to be cheaper for the 10 person buying that property. And I'm excited 11 about that because we can also deliver really 12 good environmental protections along the way. 13 In the clean air space energy projects 14 that are cleaner, they also need permitting. 15 If that's dragging out, that's delayed 16 environmental benefit. That means more 17 pollution, not faster technologies that help 18 reduce pollution. 19 So this all goes hand in glove with the 20 mission. So I'll talk a little bit more about 21 the work that we're doing to evaluate our own 22 emissions from our facilities. But, you know, 23 over the 70 years of the Clean Air Council, the 24 work that you've done has been tremendous. And 25 I just want to say thank you again. The

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1 contributions have been immeasurable, serving 2 as an exemplary advisory committee on the 3 cutting edge of policy issues in the State of 4 New Jersey. 5 And so this hearing is going to be no 6 different from that. You're taking an 7 important step forward to develop a set of 8 actual recommendations that can help reduce 9 emissions while also making shifts to smart use 10 of public resources. And a key part of that 11 effort is learning from what's already working. 12 When we talk about reducing air pollution, 13 the state's government has a unique 14 responsibility, not just to set policy, but 15 also to lead by example. And I was proud when 16 I first came here to hear about all the great 17 work the DEP is doing. And you might imagine, 18 from my background, I'm also pushing us to do 19 more quickly and learning about serving the 20 government and how things don't always go 21 exactly as you expect them. 22 There are a lot of players in this space. 23 Some of those players make it so when we want 24 to do something, we have to go through another 25 agency to get approval. It may not be the most	1 that are not only reducing air pollution but 2 also saving U.S. dollars for taxpayers. 3 So here at the DEP, we're walking the 4 walk. We're treating our facilities and 5 improving ground for emissions reductions and 6 cost savings innovations. DEP is the first and 7 so far the only state agency to issue its own 8 greenhouse gas emissions report. And we 9 document its operational footprint. How can we 10 measure if any of the changes we have are 11 making a difference if we don't have a catalog 12 or a starting point or a metric to then judge 13 ourselves on? And we're improving energy 14 performance in our buildings through energy 15 audits, energy efficiency upgrades, and we 16 anticipate by the end of the year that all the 17 DEP facilities will have completed their 18 audits. And it's not really a very small feat 19 for us. 20 We have facilities, not just this 21 building. So we have 3,000 employees; 1,000 22 are here, that means two-thirds of our staff 23 are other places. Many times they're small 24 buildings and remote places because they're 25 field operations. And it's a very different
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1 efficient thing, but it helps to ensure we're 2 being good stewards of our money. But that 3 also slows down the process to really good 4 results, like removing pollution from our air. 5 So all of us working together and identifying 6 what those problems are and making sure the 7 other agencies are also committed to that, can 8 help streamline and deliver the solutions that 9 we're looking for. 10 And when we talk about reducing air 11 pollution altogether, we're going to ask 12 residents and businesses and local governments 13 to reduce their emissions and invest in clean 14 energy. That's important. Leadership builds 15 trust and trust drives action altogether. As I 16 mentioned earlier, the State of New Jersey 17 towns and municipal agencies are actively 18 evaluating their energy use, usage, operational 19 costs, their vehicle fleets and facilities. In 20 a time like today, with energy prices the way 21 they are, with fuel prices the way they are, 22 that work is more important than ever. But we 23 knew that before this moment, right. And 24 importantly, many are taking meaningful steps 25 to modernize their infrastructure. Efforts	1 task to audit all those facilities, like 2 auditing all the homes and other infrastructure 3 needs. Imagine you drive into a park and you 4 pay your small fee to enjoy that beautiful 5 natural resource. That building is going to be 6 included. What does that look like? How do we 7 capture that? So it is a big undertaking. 8 DEP is also leading state agencies in the 9 adoption of electric vehicles. Already we 10 have 50 electric vehicles in our fleet and we 11 have more on order. Many of us have 12 experienced, in my former life as a council 13 member, it was hard to get the EVs. We kept 14 approving them and they weren't available. But 15 I think that logic has -- is starting to break 16 and were able to go through. And the good news 17 there, I think you know this better than me, 18 but operating an EV actually saves money. 19 I have an electric vehicle. I save \$1,800 20 a year over fueling that same miles traveled 21 with gasoline using electricity. And just 22 recently I was able to take advantage of the 23 federal tax credit before it expired on 24 December 31 and put in solar panels and that 25 electricity is free so -- not really it'll pay

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1 itself off, right. I got it five to six years, 2 you know, the extras and things -- but that's 3 pretty incredible. 4 And that's what I'm saying about we have 5 solutions with it comes those challenges. And 6 at the DEP, we're assessing the potential 7 upgrades of adding solar to our facilities as 8 well. The roof here has solar but they're 9 older, so they're not generating as much 10 electricity as they could. So that's an 11 opportunity for us. And then across our lands, 12 making sure they're done in a way that's 13 sensitive to the environmental needs. We can 14 also deploy solar to be part of the solution. 15 And I think one of the things that 16 Governor Sherrill recognizes is, you know, 17 solar is going to take space and there are 18 smart places we can do it: Parking lots, 19 highway medians, facilities that the government 20 owns that are already hardened, that could be 21 buildings and roof houses. So the DEP is well 22 on its way to identifying those places as well. 23 And we're going to need, you know, smart 24 actions can help us to support that. 25 Ultimately, this initiative belongs to all of	1 water supply. And so you see the volume is 2 starting to multiply the vitals. It's a lot. 3 So anyway, I'm standing up there. I'm 4 speaking on a microphone like this. And in the 5 middle of this, you can't hear me anymore. And 6 we had a generator running in the back. That's 7 how we power our events off site. And so I was 8 very patient, you know, I've been doing some 9 public speaking before in the classroom, et 10 cetera. I'm waiting and waiting and they take 11 the one generator and they switch to the backup 12 generator. This is kind of interesting. The 13 generator usually is already a backup, but we 14 have a backup generator for the backup 15 generator. So it's all good. 16 People roll with it. We finish the event 17 and it's all good. And I walk over and thank 18 the folks who set it up because it's a big 19 undertaking to get the event ready. And I 20 said, what happened? You know what happened? 21 They said, well, the generator went out. 22 That's why we have a backup. And sometimes 23 that happens. And I said, we're the DEP, why 24 are we using a gas generator? Did you ever 25 think about a battery option?
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1 us. It's not just the state agencies, the 2 counties, the municipalities but really all of 3 us working together that are going to be able 4 to make that happen. 5 And I'll give you one other example: I 6 was telling -- I want to, you know, recognize 7 Paul Baldauf, our assistant commissioner, for 8 his great leadership and I was talking to him 9 this morning. And my first press conference -- 10 I'm acting commissioner. I hadn't been 11 confirmed yet so I'm limited in the number of 12 speaking engagements that I do out publicly -- 13 so my first press conference is really 14 important -- PFAs take back programs of fire 15 companies across the state. 16 Over 340 voluntarily (Indiscernible). 17 When you hear 146,000 gallons of something, 18 you're like, oh, 146,000 gallons. When you see 19 even 10,000 gallons, trucks and trucks, and 20 big, huge 55-gallon drums and five-gallon 21 containers and people in suits moving this 22 material and all the equipment, you start to 23 realize what a big problem PFAs is in our 24 environment because a little bit of that 25 material is very toxic to a whole big drinking	1 And Jason said -- who does our event 2 stuff -- he said, no. Next event, we have a 3 battery, you know, it's not very big. It's the 4 size of this podium, maybe about this high. 5 First of all, it's quiet. There's no 6 emissions, so we're not choking. We don't have 7 to hide it with long extension cords far away 8 just know electricity, the further it goes, the 9 weaker the amount is. 10 And that next press conference we did, we 11 used about four percent of its total capacity. 12 And if you plug that into a place with a source 13 that already is using clean energy, that 14 reduces emissions right there. Those little 15 engines are awful for us to breathe. 16 And so what I mean to say by sharing that 17 example is even at a place where we're on the 18 forefront, we have opportunity and we need to 19 challenge ourselves every single day to say, is 20 this system we have really working? Do we need 21 to take this for granted it's going to be 22 exactly this way? And what will it take to 23 change it? In this case, you know, I think 24 they have room in their budget. It's not a 25 very expensive item. That's okay.

Page 26 1 But we're talking about electrifying 2 massive fleets or deploying massive amounts of 3 solar panels. It's not just, like, someone 4 just decides that it happens. You've got 5 government budgets; you've got the legislative 6 process; you've got purchasing and procurement 7 rules, contracting, land acquisition, and the 8 list goes on and on and on. That's why you're 9 here. That's why we appreciate everything that 10 you bring to the table. Your insights and your 11 perspectives. 12 And that's why I'm really grateful to all 13 of you for your time and appreciative that you 14 put it forward and optimistic about what the 15 future holds when we work together to solve 16 these challenges and provide more jobs and 17 cleaner air for the people of New Jersey and 18 help to provide businesses with the kinds of 19 technologies they need. So New Jersey, my home 20 state, which I was born and raised in, can 21 continue to be an economic powerhouse and a 22 shining example of how to do things in the 23 future because we're living that today. We're 24 actually redefining that for much of the 25 nation. So thanks for having me this morning.	Page 28 1 you know Senator Bob Smith and he's kind of 2 part of the assembly at Sullivan Kennedy and 3 the like, really respect the work of the Clean 4 Air Council. And every time we do our hearing 5 report, I every year give it to the chairs and 6 vice chairs, let them know what the topic is. 7 We had one on food waste where 8 speaker Coughlin actually remote in and testify 9 at the hearing. We had an initiative back 10 during Governor Corzine where we did retrofit 11 on garbage trucks and school buses to help with 12 admissions. So not only does this council do 13 great work and the team here at DEP assist us, 14 but you know, we see it from the report to 15 concept idea to legislation to help you all in 16 the goals here at DEP. 17 So I just wanted to, you know, sort of 18 share that with you, that this is a great group 19 and we continue to have, you know, a standard 20 that, you know, we can deliver, you know, good 21 work to. So just wanted to share that with 22 you. 23 MEMBER: Yeah, what he said. 24 ACTING COMMISSIONER POTOSNAK: Thanks so 25 much, Mike.
Page 27 1 Best wishes for a really great event. And 2 if there are any questions. I can -- think a 3 few -- I think I've a few minutes here. So any 4 questions? 5 COMMISSIONER: Yeah. Commissioner -- 6 Commissioner (Indiscernible) with the 7 (Indiscernible). Great to see you. 8 And likewise, I want to also reiterate and 9 emphasize what a great participation we have 10 from the council. I'm the longest serving 11 member since Governor Christine Todd Whitman 12 had appointed me in every governor since then. 13 But my point is the staff (Indiscernible) the 14 staff here and I serve on a lot of boards, 15 councils and commissions, different agencies 16 and the like. 17 The staff here is tremendous. I have to 18 give kudos to Paul to Frank, Peg, very 19 responsive. Worked very well with us over the 20 years. Not -- even beyond the public hearings 21 and everything. 22 And the thing that I really admired most 23 for your takeaway here today is we're very well 24 respected. You and I have worked together in 25 the legislative process over the years. And	Page 29 1 And what I would add too is we just came 2 out with a report on food waste. If you 3 haven't seen it. Has the Council grabbed a 4 copy? We'll make sure you see it. 5 But there actually has been progress 6 there. I want to say it's a little over ten 7 percent of where the line with no action would 8 have been. But there's still a lot of 9 opportunity and responsibility. Because we can 10 keep it out of the landfill, that's helpful. 11 We can also keep the methane gases from a 12 making their way into the environment, which is 13 very important. 14 CHAIR DR. OPIEKUN: And, Commissioner, one 15 last thing I wanted to add is that we always 16 try to pick a topic that's timely, that can 17 help you and the staff here as you're thinking 18 outside the box and different ideas. So we 19 always welcome, you know, your ideas for next 20 year's hearing. 21 If you have something that's, you know -- 22 you know and I know, that the legislature will 23 take on whatever. We're open to that as well. 24 ACTING COMMISSIONER POTOSNAK: I'll keep 25 thinking. Every day I get up, I have another

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1 idea. So that's great. 2 You know, this better than me working with 3 the staff here. One of the blessings, in 4 addition to -- and honor and the privilege of a 5 lifetime in my career to serve in this role is 6 the folks here are just tremendously capable, 7 professional, bring their whole selves to this 8 work. And, you know, I imagine they'll 9 continue to come up with really great ideas 10 working collaborative with all of you. So I 11 don't think you have to depend on advertising 12 to come up with the next great idea. That's 13 why you're here, that's why they're there. But 14 I will keep thinking. 15 CHAIR DR. OPIEKUN: Thanks. 16 ACTING COMMISSIONER POTOSNAK: I 17 appreciate it. 18 CHAIR DR. OPIEKUN: Thanks. Anyone else 19 questions? 20 All right. This morning I have the great 21 pleasure of introducing our next speaker, 22 Helaine Barr. Helaine Barr is the Assistant 23 Director of Climate Change, Clean Energy and 24 Sustainability at NJDEP. In her role, she 25 champions creative policies to tackle climate	1 really requires action across many sectors of 2 the state, right? From transportation to 3 buildings to how we manage our natural lands. 4 In my job, one of the things I do is I ask 5 folks to make those changes. And it's really 6 hard to stand in front of someone and ask them 7 to cut emissions or change the type of energy 8 that they're using or think about their food 9 waste and not be doing that back in my own 10 agency, right. I think it's really important 11 for us as a state agency to walk the talk, 12 right. 13 In regards to building credibility, 14 building public trust, it also means that we as 15 a state agency are able to serve as a proving 16 ground for some of these policies, right. And 17 to make sure that they do make sense for New 18 Jersey. New Jersey is so diverse. We have so 19 many different types of communities, so many 20 different types of economic realities across 21 the state. We have to make sure that any 22 policy, any regulation, any incentive that we 23 pass works for the vast majority of our 24 citizens. 25 So over the last few years, my team here
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1 change, encourages sustainability, and develops 2 initiatives and partnerships to put New Jersey 3 on a path to achieve its ambitious greenhouse 4 gas reduction goals. 5 Helaine is an environmental planner with 6 over 15 years of experience in climate change 7 mitigation, watershed planning, and 8 sustainability. She has been with the 9 department for ten years, leading the 10 development of New Jersey's major climate 11 action plans, including the Global Warming 12 Response Act, 80x50 report, two RGGI strategic 13 funding plans, and New Jersey's Comprehensive 14 Climate Action Plan. 15 Born and raised in Mercer County, New 16 Jersey, she's passionate about public service 17 and helping society transition to a more 18 sustainable tomorrow. 19 Helaine. 20 MS. BARR: Good morning. Thank you so 21 much for having me today. As some of you know, 22 this topic is one of the most fulfilling things 23 that I get to work on. 24 (Colloquy) 25 MS. BARR: So addressing climate change	1 at the DEP has really worked to ensure that DEP 2 is embedding climate mitigation into its 3 operations. I think I'm one of, you know, Jobs 4 crazy ones, maybe one of the wild ones, trying 5 to really make sure that these things are 6 happening. So before I jump into our specifics 7 here at DEP, I'm going to orient you to where 8 DEP stands in the larger state context and walk 9 through some of the policies that are guiding 10 our work. 11 (Colloquy) 12 MS. BARR: So FY21 is the most recent year 13 of publicly available data. So apologies, it 14 is a little late. As the commissioner touched 15 upon -- or maybe Rick -- there's over 5,500 16 buildings of state -- state agencies 17 overseeing. 18 As you can see across the map, these 19 buildings are scattered throughout the state 20 and are present in each country -- each county 21 and municipal areas. Our total energy costs 22 were close to 95 million that year. While I 23 don't have new numbers on hand, I think it's 24 safe to say that it's probably significantly 25 risen most recently. And I anticipate that

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1 state agencies are definitely spending more now 2 than they have previously. 3 When we look purely at the number of 4 buildings by agency, we see that DEP is number 5 one. That being said, not all of our buildings 6 do have an energy demand and we're not the 7 largest energy using agency, which I actually 8 believe is corrections. But regardless, we 9 have a vast building portfolio which really 10 speaks to the opportunity at the department. 11 Our portfolio includes all of the state 12 parks, historic sites, fish and wildlife 13 management areas. These recreational areas 14 have very high visitorship. They provide an 15 opportunity for us to educate and engage the 16 public on energy kind of issues and to really 17 show that the future is possible. 18 When we see people come into our buildings 19 and to our facilities, we really want them to 20 see what is possible in their own homes. So I 21 think it's a unique opportunity here at DEP, 22 right. Not everybody visits a correction 23 facility, but I venture to bet most New Jersey 24 citizens have visited a state park. 25 So drilling down to DEP specifics, again,	1 by 2015. 2 So these two AOs have really kick-start 3 our work here at the department. The first one 4 issued was focused on electric vehicles. 5 In 2021, it called to transition the DEP fleet 6 to electric vehicles in accordance with an EV 7 law that also requires state agencies to do 8 EV -- to do an EV fleet. Additionally, what's 9 unique about this AO, though, is it also 10 identifies the need for workplace charging, 11 right. 12 So it's going beyond a step of just our 13 state agency fleet. It's also thinking about 14 the folks that come into Trenton into these 15 buildings every day and what they're driving, 16 right. Because those commuter miles are also 17 impacting the environment. 18 The second administrative order was 19 released in 2023, and this one really focuses 20 on a more holistic lead by example effort and 21 functionally embedded greenhouse gas reduction 22 efforts within the department's operations, and 23 set out a series of clear objectives. As you 24 can see here, it called for the development -- 25 and I'm going to walk through all of this as a
Page 35	Page 37
1 we manage over 2,000 properties across the 2 state and each electric distribution company 3 area. And FY23, our most recent data, we spent 4 over \$4 million on energy bills alone, and we 5 account for about two percent of the total 6 state agency energy consumption. It's great 7 that we have so many buildings across the 8 state. But also makes it a little complicated, 9 right, because we're in different energy 10 distribution company areas. And so there's 11 different set of incentives, potentially 12 different challenges of working with those 13 companies and having to understand, like, their 14 connection, how that works and, you know, our 15 opportunities to ensure that we can reduce our 16 energy usage there. 17 All right. So we're all done with 18 background. Recognizing the value in 19 institutionalizing some of this work, 20 Commissioner LaTourette issued a series of 21 administrative orders directing the department 22 to reduce its greenhouse gas emissions in 23 alignment with the state's broader climate 24 action plans. So we called for statewide 25 reduction in greenhouse gases of 80 percent	1 steering committee. 2 Our first greenhouse gas inventory, 3 identifying our assets with energy and water 4 demand to better understand all the equipment 5 that we have within our facilities, prioritized 6 energy audits and then integrating all of the 7 updates around energy conservation measures. 8 Hoping to build out solar at our facilities. 9 And then in conclusion, developing a strategic 10 energy management plan. 11 So in early 2023, we kicked off with a 12 formal steering committee, as per the 13 administrative order, I chaired this steering 14 committee with Jeff MacMullen, who's the 15 director of facilities here at DEP and also our 16 energy manager. And the committee is comprised 17 of representatives across the department that 18 guide the work and provide expertise on how to 19 best reduce our crop improvement. The 20 committee has met quarterly over the last three 21 years, and as you can see, we have 22 representatives from some of the groups that 23 have and oversees much of the state lands. 24 I know you'll be hearing later from 25 Golden, Dr. (Indiscernible). We also have the

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1 head of parks, John Cecil, that participates. 2 Our management and budget office, as well as 3 (Indiscernible) our community investment, who 4 oversees Green Acres and many of those 5 programs. So I can't underline or stress 6 enough how invaluable the steering committee 7 has been to guiding this work and helping to 8 really embed the spirit of that AO in the 9 everyday work of the department. 10 I think it was really wonderful when the 11 commissioner just talked about the backup 12 generator need, right, like that's something 13 that, you know, we've been talking about this 14 for three years. That has never come up. I 15 didn't know that they had a backup generator 16 for sound, but that's wonderful, right. So 17 this is a great example of even if you have a 18 team of like, you know, some of the brightest 19 and best thinking about how they can adopt 20 these types of practices. There's still 21 opportunities here every day that we're 22 finding. 23 And, you know, we as a state agency have 24 an obligation to be a leader in this for the 25 other state agencies in New Jersey, for our	1 a big impact, right, for -- as well as, you 2 know, as our electric grid gets cleaner, it 3 will drive down emissions generally. But as 4 you can see that in any year, electricity usage 5 is the largest source of emissions, followed by 6 vehicle fueling, with the remainder made up of 7 fuel oil, liquefied petroleum gas, and natural 8 gas. Fuel oil and LPG are mostly used on site 9 in our facilities, in our parks that don't have 10 ability to connect to natural gases systems for 11 heat and hot water. 12 So zooming in on our most recent data set. 13 These charts break down the 2022 emissions a 14 bit further. Buildings account for about 70 15 percent of our total DEP emissions. The 16 department manages over 90 facilities, which is 17 a really broad term and can encompass many 18 individual structures per group of buildings. 19 Facility is kind of just -- was developed for 20 paying our energy bills and we've been 21 grappling with what that means. 22 Sometimes our energy accounts are multiple 23 parks, multiple buildings across disparate 24 geographic areas. We account for emissions so 25 associated with all the buildings that DEP
Page 39	Page 41
1 counties, for our municipalities. So we're 2 going to write a case study on that one. 3 Great. Next up. 4 So the next thing that we worked on once 5 we had the steering committee put together was 6 we developed our first admissions inventory 7 report. And we looked at our historical day 8 use before the pandemic and then up through our 9 most recent data, which at that time was 10 through 2022. We evaluated scope one and scope 11 two emissions. 12 So scope one emissions includes vehicle 13 fuel use, our fuels burned on site and natural 14 gas. As well as scope two emissions, which 15 looks at electricity emissions and our 16 emissions associated with our district. So 17 these stack bars on the chart show the 18 breakdown in emissions for the five years of 19 the inventory. 20 Total emissions peaked in 2019, decreased 21 in 2020 and 2021, probably from the pandemic, 22 and then crept back up in 2022. We are looking 23 to update this. So we're going to see if 24 there's more of a trend that will be 25 established. But things like weather can have	1 owns, all that we lease or rent, and where we 2 pay the energy bills. 3 Electric usage accounted for over half of 4 our buildings' emissions and about 40 percent 5 of our total emissions as an agency, whereas 6 fuel oil and natural gas usage are the next 7 largest sources of emissions. I think -- 8 George, if you can click one more and I think a 9 new chart comes in. There we go -- the top 10 five emitting facilities in 2022 were DEP 11 headquarters, where we are today. Liberty 12 State Park, (Indiscernible) trail pattern, 13 Ringwood State Park, and Five Station Plaza, 14 which is another office building near Trenton. 15 So that really shows the variety of our 16 building inventory and operations. 17 Vehicle usage accounts for the 18 remaining 30 percent of our greenhouse gas 19 inventory. The department has about 1500 20 vehicles, give or take. It fluctuates among 21 our vehicles. The majority of emissions are 22 associated with a fleet of gas powered pickup 23 trucks. In 2022, our department utilized 24 almost 660 pick-up trucks for our daily 25 operations, making up about 50 percent of the

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1 agency's fleet. 2 So what's up next for our greenhouse gas 3 inventory? We anticipate releasing a new one 4 this year that will cover three more years of 5 data. So 2023 through 2025, we are exploring 6 the potential to include emissions associated 7 with other sources like waste, which we're 8 excited about, especially in the connection to 9 all the food waste work that the department has 10 been working on. We're also going to 11 incorporate a broader analysis of the impact of 12 the COVID-19 pandemic and our hybrid work 13 policies to see how those are impacting 14 specific buildings. And we also hope to start 15 to see the impact of some of the building 16 upgrades and efficiency projects that we've 17 undertaken over the last few years. 18 So now I'm going to sort of switch topics 19 and look a little bit more deeply at what 20 exactly we've been doing within our buildings. 21 So simultaneously, you know, we were standing 22 up, we're forming, norming, and storming, 23 right. So we're standing up our steering 24 committee, we're doing our data analysis 25 because you can't manage what you don't	1 this data to identify specific buildings with 2 high usage and then identify targeted energy 3 conservation measures to address and reduce 4 that usage where possible. So this picture 5 here is of Allaire State park, which is one 6 case study. You can see the larger the circle, 7 the greater energy demand. 8 So I mean it makes sense when you look at 9 this, you can see the visitor center is the 10 largest as well as the administrative building. 11 But still it gives us that level of detail to 12 really better understand when these peaks are 13 happening and electricity usage. Help us think 14 about what is the equipment in those spaces 15 that needs to be updated or upgraded and then 16 also helps us better think about and cite 17 potential solar projects right where we're 18 going to offset that electricity usage. 19 Next up, we also -- and a shout out to 20 Jessica August, who's also in the audience 21 today, who worked tirelessly on all of this 22 work, made a commitment to audit every single 23 facility and building here that DEP has that 24 has an energy demand. And this has been really 25 imperative as well. So it's been a lot of work
Page 43	Page 45
1 measure. And we're also trying to really 2 understand what was in our buildings, what was 3 the energy being used at a meter level. 4 This is incredibly important for us to 5 really understand who our biggest energy users 6 were. Again, our energy bills are at the 7 facility level. It's kind of more difficult to 8 parse out where meters were located in which 9 buildings. So in 2023 we began the process 10 working collaboratively with fish and wildlife 11 and park staff to map out every single energy 12 meter to better understand our energies. 13 I have to give a shout out to Ryan Scale 14 [ph]. He's in the audience day. He put 15 together a really fabulous low cost app on your 16 phone that you could go out to the site and 17 take a picture and geolocate every single meter 18 and put in the info. Really low cost, just 19 staff time. We were able to essentially map 20 95/200 meters, across the state and tie 21 building data to all of those locations. 22 By doing this, we're able to fully 23 understand where and how much electricity is 24 being used across our facilities and our entire 25 building portfolio. We're then able to use	1 and it's a labor of love. There's the local 2 government energy audit program through the 3 BPU, where we actually get access to free 4 level-two audits for our buildings. But it's a 5 lot of paperwork and it takes a lot of time and 6 it means that you have to coordinate with 7 different folks at the facility level to get 8 that information. 9 Really excited to be able to say that by 10 the end of this year we will have completed 11 auditing all of our facilities, which is 12 awesome. That have an energy demand to over 73 13 facilities. And we're also then looking to 14 start re-auditing, right. They suggest that 15 you re-audit every five to seven years. So we 16 have some sites that are right at that 17 seven-year mark that we're looking to do again. 18 And these audits are really important because, 19 you know, it's great to have the meter data, 20 right. We needed that to understand the energy 21 consumption. 22 But what the energy audit provides us is 23 detail on the equipment that's within each one 24 of these buildings. So it's telling us the age 25 of the equipment, the type of the equipment,

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1 its useful life. You know, is this way past 2 its prime and, you know, older than me, or is 3 it, you know, something that was put in just a 4 couple years ago and we should, you know, from 5 a cost savings perspective, not replace yet. 6 So being able to pair that information with the 7 energy data has been super useful. 8 And we've also pushed ourselves to look at 9 the facilities that we lease out, right. We as 10 a department lease a lot of properties to other 11 folks, and we pushed for all of the four golf 12 courses that we oversee to also undertake 13 energy audits. So those are underway and we're 14 excited to see what potential is there. 15 So from the LGAs, we're able to extract 16 data across all the department facilities, 17 helping us to pinpoint our most cost effective 18 actions. We were able to summarize all this 19 across all the ones that have been completed to 20 date. As you can see here from the orange 21 highlights, there is ample opportunity for the 22 department to take advantage of lighting 23 improvements. 24 So, you know, it's kind of sad a little 25 bit, but a lot of the lighting at DEP	1 allowed for individual temperature control for 2 different spaces, offering precise zone-by-zone 3 comfort, reducing wear and tear on the 4 equipment and overall saves money and energy. 5 The cost of this project was 6 approximately \$5 million. 7 The next major project he undertook was 8 looking at all of the four fluorescent ceiling 9 lights within DEP's headquarters here and 10 replacing them with LED light bulbs. That's 11 over 12,000 light bulbs that are in the process 12 of being replaced. We went from a 25-watt bulb 13 to a 12-watt bulb. And floors two through 14 seven are complete now. And they're just 15 working to finish the first floor. Though, I 16 believe that this would (Indiscernible) has 17 been completed. This is super low cost. All 18 these light bulbs, plus I believe the staff 19 time to install them totaled a little over 20 \$100,000. We're expecting a two-year payback 21 and a lifetime savings of over \$600,000. So 22 really exciting stuff. 23 On the next chart combined, you can see 24 the impacts of these two improvements working 25 together. So this was the kind of a
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1 facilities have not been upgraded to LEDs 2 unlike the rest of the state, right. So that's 3 been a huge opportunity for us is looking at 4 upgrading to LEDs. We also have a DEP for HVAC 5 and water heating upgrades as well. A lot of 6 that equipment is really old, really 7 inefficient. And what's great about the LGAs 8 is it also gives us cost savings. 9 And while, you know, they're not always 10 aligned with how much it costs us as a state 11 agency to do business, it definitely is really 12 helpful to just have a sense of what is the 13 scale, what is the amount of money we need to 14 spend on these things. So from here we have 15 started to do some implementation which is 16 really wonderful. 17 Jeff MacMullen, the director of facilities 18 has really led this. So he's been integral to 19 making this happen. So very loosely using the 20 word "we" and getting all of this done. But 21 starting in November of 2024, he was able to 22 secure funding to put in new HVAC controls and 23 a building management system here at 24 headquarters. He put in 350-variable air 25 volume systems, which were replaced, which	1 back-of-the envelope analysis that my team did 2 here for the 401 building. The blue line is 3 the annual electricity usage. So you see a 4 slight upward trend from 2021 through the end 5 of 2024, when some of these improvements were 6 installed. And then we see a significant 7 decrease in energy usage from 2024 through 2025 8 with nearly 700,000 kilowatt reductions. And 9 reductions really began in May of 2025 and 10 onward. In January and February of this year 11 alone, we've seen a reduction of nearly 100,000 12 kilowatts in each month compared to the 13 respective monthly average over the last five 14 years. So you know, we're really excited to 15 see how this plays out over the next couple of 16 years. 17 Different temperatures, different 18 realities and costs. But we anticipate, you 19 know, this will be ultimately a significant 20 cost savings in energy savings well into the 21 future of the department. We are also working 22 really closely with our parks team to utilize 23 the information in those energy audits to do 24 those lighting and water heating upgrades that 25 need to get done at their facilities. There is

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1 a significant opportunity across all different 2 types of buildings within our parks facilities, 3 whether that be restrooms, visitor centers, 4 meeting rooms, you know, security sheds, things 5 like that, to replace inefficient lighting and 6 aging water heating infrastructure. 7 We are piloting heat pump water heaters, 8 which are two to three times more efficient 9 than conventional electric resistant heaters, 10 which is what is often being used in these 11 facilities. And heat pump water heaters should 12 have lower operating costs. So we're in the 13 process of getting quotes for all this work 14 done, for the work getting installed. We're 15 really focused on our largest parks and the 16 largest energy using parks at the moment. So 17 we're looking at Allaire, (Indiscernible), 18 Island Beach State Park as well. No data yet 19 on that but we're excited. 20 (Colloquy) 21 So what else? Beyond the retrofit which 22 is, you know, often the more costly and complex 23 things to do. It's been really great to see 24 our program areas internalize this mission and 25 this goal. So, you know, most recently we have	1 that energy use there, the next big phase of 2 work that we've been focused on is our fleet. 3 So the state's EV law has set targets for state 4 agencies to electrify their fleets. By 2025 5 state agencies were expected to electrify 25 6 percent of their light duty non-emergency 7 fleet. We're really happy here at DEP to say 8 that I believe we're one of the only agencies 9 that was able to achieve that goal. 10 We have over 160 EVs within our fleets and 11 that is a mix of pure EVs as well as plug-in -- 12 plug-ins that also have fossil. And as part of 13 that work, DEP has also been really focused on 14 building out our charging infrastructure. 15 Currently we have 75 charging ports. This 16 includes ports that are for fleet use, 17 workplace, and public chargers at some of our 18 parks. And we have 49 more charges in progress 19 as well. So we're really excited about that 20 and that will be a mix of fleet charging as 21 well as public charging at Liberty State park. 22 One of the big projects that we worked on 23 as a steering committee was EV pilot, right. 24 Understanding that trucks are some of the 25 biggest energy users in our fleet and, you
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1 a couple of new construction projects that are 2 going to be high performance, all electric 3 buildings, which we're super excited about. 4 The picture here is Washington Crossing Park 5 visitor center, which is currently under 6 construction. You can see the rendering above. 7 This building is slated to open by the end 8 of the year for our annual Christmas Day 9 Crossing the Delaware River event. It's going 10 to be a wonderful visitor center. It's going 11 to have not only super energy efficiency but 12 it's going to have a green roof and other 13 sustainable features. The other facility that 14 I'm aware of -- and maybe Dave will talk a bit 15 about this -- is the Wildlife Resource Center 16 that will serve as the Fish and wildlife 17 Northern Regional office is planning to also be 18 all electric and incorporate other 19 sustainability features. So it's really great, 20 you know, as we get to build these buildings we 21 are really getting to show the public what is 22 possible, what is, you know, what this future 23 looks like. 24 All right. So look through the years a 25 little bit again. Beyond our buildings, beyond	1 know, they're, you know, we have a big need for 2 them, for the types of work that our facilities 3 staff does and for our maintenance, our fish 4 and wildlife staff does. So we really wanted 5 to pilot electric trucks and to just see could 6 these -- could we use them for the type of work 7 that we undertake is, you know, and kind of do 8 it in a low risk way, right, like, one truck at 9 each facility. So we get broad coverage. A 10 lot of different people get the experience of 11 using the truck and then we can really take a 12 step back a year or two from now and see, okay, 13 what worked, what didn't, what do we need to 14 learn if we're really going to hit the goal of 15 transitioning 100 percent of our fleet by 2035. 16 So this was a multi-year process of 17 ordering vehicles, having them be built by 18 Ford, having them wrapped to ensure public 19 promotion, and then installing the fleet 20 chargers, which is still underway. Throughout 21 this work, we anticipate having over 60 new 22 total EVs in our fleet by the end of the year. 23 So on this map, the larger the circle means, 24 the more EVs at the location. Our goal is to 25 have at least one EV at all major parks and

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1 fish and wildlife facilities. Again, letting 2 the public to see it and it's better for the 3 health of our workers and the communities 4 surrounding. 5 I don't know if that's going to work. Is 6 this a good video. 7 (Media plays) 8 One of my responsibilities at DEP is 9 overseeing our vehicle fleet and it's a big 10 one. We manage around 1400 vehicles that 11 support our 2,800 full-time employees. And 12 during our peak season, up to 1500 additional 13 part-time team members. 14 In 2020, Governor Phil Murphy signed the 15 Election Vehicle Act setting clear goals to 16 transition New Jersey's state-owned fleet to 17 electric vehicles. Here's what that means: By 18 December 31st, 2025, at least 25 percent of 19 non-emergency, light duty state vehicles must 20 be plug-in electric. And by December 31st, 21 2035, 100 percent of those vehicles will be 22 plug-in electric. 23 To support these goals, on 24 March 21st, 2021, DEP 25 Commissioner	1 down 29 the other day and I got so excited. 2 'I'm driving. I can't take a photo.' But 3 yeah, it's been great. It's wonderful to see 4 them around. Hopefully they're inspiring other 5 people. 6 So beyond just, you know, dropping the 7 keys to an EV in lots of parks' staff hands, 8 we've also been really wanting to make sure 9 that they're comfortable driving these things. 10 I mean not many people have EVs still, right. 11 They're so uncommon generally across 12 New Jersey, you know, while it's growing in 13 numbers, not everyone has that experience of 14 driving one. 15 And there was a lot of anxiety, I think 16 for staff, right, like anxiety about learning, 17 you know, the range and how -- how heavy is 18 this going to be on the road. And, you know, 19 how fast is this going to be, am I going to 20 like it, am I going to be able to store my 21 tools, and all that stuff. So we tried to make 22 sure that there are a lot of resources out 23 there for the staff to make sure that adoption 24 went as smoothly as possible to help dispel 25 concerns. So we have an intranet web page with
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1 Shawn LaTourette signed an administrative 2 order requiring DEP to purchase the most fuel 3 efficient vehicles available in this order: 4 battery electric vehicles, plug-in hybrid 5 electric vehicles, hybrid electric, and only 6 when necessary, the most fuel efficient 7 combustion engine vehicles. 8 Right now, our fleet includes 90 plug-in 9 electric hybrid EVs and 6-battery electric 10 vehicles. These vehicles are deployed across 11 the state, supporting DEP's mission in every 12 region, including 50 of our state parks and 13 wildlife management areas. And our battery 14 electric vehicles. They're wrapped in a bold, 15 beautiful graphic design. So it's clear that 16 these are DEP-owned electric vehicles. We want 17 every New Jerseyan to know DEP is leading by 18 example. 19 By investing in electric vehicles, we're 20 not just meeting mandates, we're reducing 21 emissions, improving air quality, and helping 22 create a cleaner, healthier New Jersey forever. 23 (Media stops) 24 And here's some photos of the EVs in the 25 wild, as we like to say. I saw one driving	1 a lot of information out there for the staff, 2 as well as we put together these really great 3 fact sheets on each type of vehicles that we 4 have that are pure electric so. 5 All right. Commissioner touched on his as 6 well. We have a goal here, this department 7 said, of offsetting 100 percent of our 8 electricity usage with solar. This is our 9 long-term goal. We know it's going to take us 10 a while. If we get this done in, like, the 11 next ten years, I'm going to be ecstatic. But 12 I'm not betting on it. 13 But in the near term, what we've been 14 doing is really having a deep conversation with 15 our parks and facilities staff about where does 16 it make sense to put solar, looking at these 17 solar projects on your properties, right. We 18 understand there's a lot of environmental and 19 historic value at these sites. We don't 20 want -- we don't want to cause any issues that 21 way. But we do think that there's an 22 opportunity for the state to lead here. 23 We've developed a short list of sites 24 where solar canopies are possible and we're 25 having a contractor perform environmental site

Page 58 1 assessments and developing initial design 2 drawings for storage canopies at these parks. 3 We're hoping to take advantage of BPU Remote 4 Net Metering program because we have a lot of 5 really large parking lots that can generate 6 more energy that then we can use on site. 7 So we're working together to really 8 identify those projects, hoping sometime in the 9 next few years to be able to jump start and to 10 get some solar at our parks and potentially our 11 fish and wildlife sites beyond that. And the 12 Commissioner touched upon this. We have a much 13 older solar system on the roof here 14 at 401 that was installed in 2012, it is 184 15 kilowatts. But, you know, solar has really 16 grown a lot. It's matured a lot as a 17 technology and we believe that we'll be able to 18 generate a lot more electricity if we replace 19 that, which will meet with a larger system. 20 So right now we have a feasibility study 21 underway looking to see the potential of 22 putting new solar. So we're excited about 23 that. 24 All right. So few more slides and I swear 25 I'm done.	Page 60 1 the road. 2 And to give you a sense of some of the new 3 things that I haven't talked about that we're 4 hoping to include in this plan. But one is we 5 would like to explore demand response. So 6 where the state and DEP would be paid for 7 decreasing our electricity demand when the grid 8 is stressed, like for our heat waves. This is 9 a revenue generating opportunity where DEP 10 could then, theoretically at least, use those 11 funds back to invest in more energy efficiency 12 work. 13 We're also exploring electric equipment, 14 you know, we have a lot of maintenance workers 15 and staff that are breathing exhaust in every 16 day, right. They're on the lawn mower seven 17 hours a day. They're using chainsaws. They're 18 using other fossil equipment. So we feel it's 19 a real health and safety priority for us to 20 explore and see "can electric equipment fit the 21 bill" in some of the use cases there. So we're 22 looking to evaluate that and better understand, 23 you know, where electric equipment could be 24 part of our facilities work in the future. 25 All right. And then last but not least, I
Page 59 1 So in closing, we do have a lead-by-demo 2 public facing website as well, which includes a 3 link to our first admissions inventory report 4 data on DEP's program. We have a wonderful 5 story map highlighting some of the completed 6 projects that we done -- that we've done. This 7 website helps us hold ourselves accountable and 8 allows the public and other state entities to 9 learn from our work. We also set up an email 10 address so that if anyone has any questions, 11 they can reach out to us and we periodically 12 update that. 13 Additionally in the near term this past 14 year, we've been working on developing our 15 strategic energy plan for the department, which 16 will hopefully come out by the end of this 17 year. In this document we're really 18 identifying and refining strategies for moving 19 our work forward and formalizing a lot of the 20 priorities that we talked about in our steering 21 committee meetings. So each strategy has a 22 series of concrete enabling actions to help 23 guide the work forward over the next five 24 years. We really see this plan as serving as a 25 road map for the different implementers down	Page 61 1 know that Council Neuman requested 2 recommendations from each of the speakers. I 3 put some high-level thoughts here and we can 4 talk about these more later. But I'll just 5 touch on them really briefly now. I think 6 there's maybe four major policy recommendations 7 that the state government could consider. 8 First, I think the state should evaluate 9 its current lead-by-example government 10 structure and explore opportunities to improve 11 it. You know, other states, like Wisconsin, 12 have more centralized offices that coordinate 13 sustainability initiatives and direction across 14 all the state agencies. Typically this is in 15 their general services agency. I think that 16 that's been, you know, it's kind of interesting 17 to see other states implement, you know, that 18 way versus a little bit more of a bottom up 19 approach that we're taking here in the state of 20 New Jersey. 21 I think what's also interesting, some 22 other states have centralized web pages at a 23 minimum. So both California and New York have, 24 they call them the green web pages. So green 25 California, green New York, where they have

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1 dashboards that summarize agency efforts across 2 the board. So you can look and see any one 3 agency's fleet or any one agency's energy usage 4 and what they're doing, any one agency's solar, 5 you know, build out. So I think that's a great 6 way to hold ourselves accountable, get that 7 information out to the public. 8 My second recommendation would be to 9 encourage state government agencies to develop 10 their own baseline greenhouse gas inventories. 11 Having an inventory is essential for measuring 12 our progress, setting targets and identifying 13 our opportunities. Currently our Board of 14 Public Utilities, the Energy Services Division, 15 is working towards creating energy baselines, 16 which is so super important. With those 17 baselines, are not going to be comprehensive of 18 all emission sources. So I think there's a 19 potential to grow that over time, you know, 20 include things like vehicle fuels, waste, 21 algae, and gases. 22 My third recommendation is we should set 23 more targets, right. I think the EV law has 24 been wonderful in pushing the needle forward on 25 agency fleets. I think, you know, we should	1 know, service for affect. The restrictions are 2 fewer (Indiscernible) et cetera is an issue 3 with other types of services. Are you finding 4 that? And have you thought about whether there 5 are specific things that the state of New 6 Jersey, in particular legislations, needs to do 7 to expand those opportunities beyond what legal 8 requirements are? 9 MS. BARR: Yeah. And so one of the things 10 that we've been doing -- and I'm, like, maybe I 11 shouldn't say that out loud -- but we've been 12 trying to make sure we fall under some of those 13 contracting thresholds so that we can do the 14 work better. 15 So I think that is potentially one thing 16 they should explore. Maybe exemptions for 17 certain types of work, you know, if it has, you 18 know, fulfilling certain missions. Yeah, I 19 think there's definitely an opportunity there. 20 I think right now the state had a solar 21 power purchasing agreement that has since 22 expired. I think that needs to get jump 23 started. I think the state really needs to 24 invest in developing a Remote Net Metering 25 power purchase agreement because DEP again is
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1 consider setting other targets for renewable 2 energy, energy efficiency, and other 3 decarbonization goals. 4 And finally, in closing, I think the state 5 should explore how other states and government 6 entities are utilizing contracts to achieve 7 their sustainability goals. Most notably, 8 Pennsylvania entered into a 15-year fixed price 9 agreement to procure 50 percent of its 10 operations electricity from ten-new solar rates 11 in the state. So I think, you know, that type 12 of model could we be really interesting. 13 It would definitely support our new 14 governor's agenda around lowering energy bills 15 and building off clean energy. So is there a 16 way that we as a state agencies could use our 17 purchasing power to encourage more solar 18 development. 19 So with that (Indiscernible). Thank you. 20 CHAIR DR. OPIEKUN: Thank you, Helaine. 21 (Colloquy) 22 CHAIR DR. OPIEKUN: While we're waiting -- 23 MEMBER: I have one. 24 So, yeah, on the contracting end, I know 25 in other types of service we do a lot of, you	1 mismatched. We have a lot of property, a lot 2 of buildings, but we don't really have the 3 largest energy demand. So we could say solar, 4 but there's not a ton of incentive to do it. 5 So we can better access that Remote Net 6 Metering through meter contracts, changes in, 7 you know, all that as a whole. 8 MEMBER: John, you got Len? 9 DR. BIELORY: Hello, everyone. 10 CHAIR DR. OPIEKUN: You're on mute, Len. 11 MEMBER: That's the first time I saw Len 12 speechless. 13 MEMBER: Well, you know, while we wait for 14 Len. I'll -- I'll ask -- I'll ask -- 15 MEMBER: Yeah, put it in the chat. 16 CHAIR DR. OPIEKUN: Len, you may want to 17 put it in the chat because you're speaking -- I 18 know you're not on mute, but it's not coming 19 through. 20 MEMBER: I'll ask one real quick while 21 we're waiting. 22 I love the lead by example, you know, 23 benchmarking and looking at other states, what 24 they're doing. Do you see -- also the 25 department, since you have great stats to show

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1 the work that you're doing -- can we also use 2 almost the department as a catalyst for county 3 and local government? Because it's like 4 everybody's got to be all in and that actually 5 helps, you know, I represent the private sector 6 business. 7 So when I go before the legislature and 8 they say, what's government doing -- hey, look 9 what government's doing. We can do it as well. 10 So I'm just wondering if that's sort of one of 11 the recommendations down the road. 12 MS. BARR: Yeah, no, one hundred percent. 13 And I think, you know, I think there's just so 14 much opportunity between the county and the 15 municipal governments to do this type of work. 16 And I think in some cases they have been. I 17 think school districts have done a wonderful 18 job around solar and ground sourcing pumps 19 getting those done. But I still think that, 20 you know, there's maybe a lack of ethos or 21 understanding. It's tough, right? Like, 22 you're not, you have to really want to do this, 23 to fight to make these projects happen on some 24 level. 25 So I think, you know, one of the things	1 model for other state agencies to be part of a 2 recommendation for the Clean Air Council to 3 review? That would be question one. 4 You created a steering committee that's 5 within the NJDEP, obviously. How do you model 6 that for other state agencies? Should we look 7 at this as a combined effort for the state to 8 reduce? Because what you showed very nicely in 9 the model, your light bulb recommendation, very 10 cheap, one thou- -- you know, \$100,000 and you 11 got return in six years. So I mean the cost -- 12 the return and cost of one-sixth is like a 13 no-brainer whether or not something like that 14 can be implemented as well. 15 And as well, how does NJDEP, since it is a 16 state agency, can it not review the building 17 requirements of other state agencies, at least 18 in Trenton, for solar canopies as you've 19 reviewed for your own. Those are my several 20 questions which are found in the chat. 21 MS. BARR: Great. Thank you. Those are 22 all great questions. 23 So in terms of the audit piece, I think 24 I'm going to defer to Sara who will be speaking 25 later on that one. But, you know, there is a
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1 and our goals, my team's goal through all of 2 this work is writing those case studies, 3 documenting that process and then, you know, 4 getting out there and talking about it and 5 promoting it so that we can show, like, hey, 6 it's possible and having those 7 cross-conversations. I know -- I'm going 8 to say it's -- Department of Health Services is 9 working on a solar project at Green Brook and 10 getting them together with our parks kind of 11 facilities folks to talk about how that 12 contracting work, like, is so beneficial. And 13 that's why we're able to start now getting 14 these feasibility studies at our parks because 15 they understood, okay, how did you write that 16 contract? How did you get a justification, 17 right, to get it through treasury procurement 18 so. 19 MEMBER: That's great. 20 DR. BIELORY: Can you hear me? 21 ATTENDEES: Yes. We can hear you. 22 DR. BIELORY: Okay. Thank you. I have 23 several questions. 24 Is there a sample form what the NJDEP has 25 used as an audit, as a consideration, as a	1 process. There is a form for other agencies to 2 take advantage of the local government energy 3 audit process. So that's out there. I think 4 it's really about just getting the word of 5 mouth and getting them interested and able to 6 apply. 7 In regards to the steering committee, what 8 was the question? Was just around promoting 9 that better? 10 DR. BIELORY: -- implementing that in 11 other agencies to really make it a mandate 12 almost from the -- from our point of view, from 13 the NJDEP to the government and down to each of 14 the state agencies. 15 MS. BARR: Yeah. Yeah, I mean I think 16 that's a great idea. And I think that's what 17 you have to do, right. Just one person cannot 18 implement all of this. You can see how many 19 people have to touch on this work and have to 20 really, you know, internalize the ethos here. 21 So yeah, one hundred percent. I think that's a great 22 idea. You know, I don't know if it is NJDEP or if it's 23 BPU or just treasury or, you know, maybe some 24 coordination between those three agencies and potentially 25 an executive order or something like that that could kick

Page 70 1 start those efforts. 2 DR. BIELORY: So those three agencies 3 would be your top choices to create an 4 over -- overview oversight committee for such a 5 statewide assessment. 6 MS. BARR: Yeah, for sure. 7 And then in regards to the solar piece. 8 Yeah, we would love to do that. I think that 9 that's definitely something within my team's 10 technical capabilities. We've definitely 11 looked for at, you know, very -- scratch the 12 surface around solar potential at sea agencies. 13 One of the interesting things we've looked 14 at too as we're looking at, you know, beginning 15 to look a little bit at DOT and some of those, 16 like, four-leaf-like cloverleaf areas, medians, 17 you know, is there opportunity there? Other 18 states have done solar there, namely 19 Massachusetts. So that's an opportunity as 20 well as DEP has some landfills that we oversee. 21 So we think that's also another great 22 opportunity for sure. And so does DOT of 23 Highlands. 24 MEMBER: Hi, I have a question, if you're 25 finished.	Page 72 1 good presentation. You guys have done a lot of 2 good things. 3 I'm curious if we've looked at, I think, 4 it's administered through BPU, the Demand 5 Response Program? There's a state agency 6 Demand Response Program. 7 MS. BARR: Yeah, we are starting to look 8 into that for sure. Yeah. 9 MEMBER: So there's usually they'll look 10 at the utilities, you know, that administer 11 programs. But PJM has something called the 12 (Indiscernible) Service Provider, CSP. That 13 one I think is probably great for just the size 14 of the footprint across the state and the 15 amount of power usage. 16 But I encourage that if you haven't 17 already -- it sounds like you have. 18 MS. BARR: We did. We actually just had a 19 meeting a week ago with the contract provider 20 testing at CPower. 21 MEMBER: Oh, was it CPower? 22 MS. BARR: Yeah, CPower. So we did meet 23 with them. We were trying to maybe get some 24 paperwork in, I think, by May 1st. We entered 25 June 1st to do the testing around the
Page 71 1 MS. BARR: Yeah. 2 MEMBER: Hi. I see a lot of really great 3 initiatives about what may be called, like, 4 Tier One and Tier Two, right, things that are 5 under your control. Do you have any 6 initiatives or are you considering more of 7 these, like, Tier Three-type admission 8 reductions? So like among commuters, the 3,000 9 employees at DEP and so on. 10 MS. BARR: So I know some of the 11 facilities (Indiscernible) is more of a 12 building approach, forced to ask, like 13 identifying buildings, you know. So not 14 everyone is commuting into one central 15 location. But commuting closer to their home, 16 that's one thing we're contemplating as a way 17 to reduce commuter miles. We've also done 18 surveys around commuting to better understand 19 if there's opportunities, like, more 20 promotional carpooling opportunities and things 21 like that. 22 MEMBER: Thank you, Wayne. We appreciate 23 it. 24 (Colloquy) 25 MEMBER: Exceptional. Great. That's a	Page 73 1 contaminancy and see if we could qualify for 2 that. 3 MEMBER: Great. That's excellent. Thank 4 you. 5 CO-CHAIR MR. NEUMAN: Thank you, Helaine. 6 We appreciate that. 7 Without further ado, it's my pleasure to 8 introduce Randall Solomon. Randall Solomon is 9 the Director of the Sustainability Institute at 10 the College of New Jersey and the executive 11 director of Sustainable Jersey. He has over 25 12 years of experience working in government, 13 academia, and a nonprofit sector. He is one of 14 the principals that founded and directs the 15 Sustainable Jersey Certification Program. 16 Prior to his current position, he was the 17 founder and executive director of the New 18 Jersey Sustainable State Institute at Rutgers, 19 where he worked to expand the capacity of 20 public decision-making to address 21 sustainability. Mr. Solomon's experience 22 includes positions as a policy advisor on 23 sustainable development for New Jersey Board of 24 Public Utilities, integrating land use and 25 energy policy director of the state's campaign

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1 for the Resource Renewal Institute in San 2 Francisco and a policy director for the 3 nonprofit New Jersey Future. 4 Other jobs include his stint as a national 5 park ranger and serving in the inaugural class 6 of AmeriCorps volunteers. He has participated 7 on advisory boards for federal and state 8 government civic organizations and has advised 9 major corporations. He writes and speaks 10 frequently on sustainable development, energy, 11 land use policy using indicators, and public 12 decision-making and governance issues. Randy 13 holds a Bachelor of Biology from Stockton 14 University and a Master's of Public Policy from 15 Rutgers University. 16 Randall Solomon. 17 MR. SOLOMON: Thank you for having me. 18 Thanks for this invitation and the opportunity 19 to speak about what we do and share some of our 20 thoughts Recommendations for (Indiscernible). 21 I'm wondering, would it be possible for me 22 to also share my screen if I wanted to put in 23 additional information other than what's in the 24 slideshow? It's not critical if it's not 25 possible given our setup. So that's a question	1 government better guidance and better supports 2 and help state agencies use and support local 3 governments more effectively to achieve our 4 statewide goals. 5 We're located at the College of New Jersey 6 intentionally so that we can -- all the staff 7 of Sustainable Jersey are state employees and 8 we're subject to state contracting rules. And 9 the Sustainable New Jersey Fund Act was passed 10 three years ago, which essentially creates a 11 non-lapsing fund to fund our work and 12 encourages state agencies to work with us. 13 Sometimes I -- so we're kind of a 14 quasi-state agency that focuses on a broad 15 range of issues as they relate to local 16 governments, in particular, municipalities and 17 schools. The program is voluntary, but 18 currently 83 percent of all municipalities are 19 participating, 67 percent of New Jersey school 20 districts are participating. And we are best 21 known as a certification program. So we 22 identify the programs, the policies, the 23 ordinances, the infrastructure that we think 24 local governments could and should implement to 25 achieve sustainability. And if they implement
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1 for George. 2 Can you all hear me? 3 ATTENDEES: We can. 4 MS. BARR: You can't just share? 5 MR. SOLOMON: Okay. 6 MS. BARR: I feel like you can share. I 7 think you can just hit the share button. 8 CHAIR DR. OPIEKUN: Yeah. You should just 9 be able to hit the share. 10 MR. SOLOMON: Okay. Great. All right. 11 So sounds good. 12 So let's go back to the presentation then. 13 And then I'll hit share when I want to share. 14 Well, I'll just start talking. I'm not sure if 15 what you are all seeing. So -- there we go. 16 So let's go to the next slide. 17 So let me just tell you a little bit about 18 Sustainable Jersey. Sustainable Jersey was 19 founded in 2009 as a partnership between local 20 government and state government and state 21 colleges in New Jersey. And the idea is that 22 there's a lot that can be achieved through 23 local government. But we needed a better 24 interface to align what local governments are 25 doing with statewide goals to give local	1 those measures, they can score points towards 2 certification. If they get enough points, they 3 can become certified. 4 Currently, there are 180 municipalities 5 that are certified and 367 schools that are 6 certified and approximately double that number 7 that are working towards certification at any 8 given time. Since the program launched, these 9 local governments have implemented and 10 documented the successful completion according 11 to our standards of over 30,000 of our 12 recommended best practices. Actually, 30,251 13 we actually count. And it averages out to 14 about three or four thousand discrete things 15 that these local governments are doing as part 16 of their efforts to get certified. Of course, 17 there's a lot more that they're doing based on 18 our guidance and our recommendation and our 19 technical assistance. 20 Beyond just getting the certification, we 21 also give out grants. Some of the funding 22 comes from state government, some from private 23 sources, but to help local governments do 24 implementation. 25 Next slide.

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1 I'm going to focus most of my presentation 2 on energy resources. But this is the part 3 where I'm going to try to share my screen. So 4 here's where the adventure starts. So can 5 everyone see my screen? 6 MEMBER: Yes. 7 MR. HANNA: We see it on the call on 8 Teams, Randy. I'm hoping they'll see it in the 9 hearing room too. Thank you. 10 MR. SOLOMON: Okay. Great. 11 So these are the -- the Sustainable Jersey 12 certification. And the core of the program is 13 a series of actions. These are recommendations 14 for local governments. Again, as I know that 15 these are programs, policies, ordinances, 16 plans, infrastructure that we want them to 17 create. And there's around 150 of them in the 18 municipal program and also in the schools 19 program each. And they cover a wide range of 20 topics as you can see here. 21 Before I dive deep into the energy portion 22 of it, I wanted to note that we have a number 23 of things that address clean air throughout the 24 program. So again, I'm going to skip over 25 energy, but I'll just note we've got green	1 model ordinance, if it's an ordinance that we 2 watched in the past, we'll provide a model 3 ordinance. If it's guidance on how to install 4 certain infrastructure or do renewable energy, 5 we'll give you that guidance. 6 So just to note in a couple of other 7 areas. There are local economies action. We 8 have a lot of bilocal, which again, improves 9 air quality. People are traveling less to buy 10 things within natural resources. There's a lot 11 that has to do with open space, trees, you 12 know, the air quality. And we also provide a 13 lot of technical assistance. 14 I'll talk more about our energy technical 15 assistance but just briefly, I'll note that we 16 also provide complete streets, technical 17 assistance. So doing -- for those who don't 18 know, I think most of you probably do -- 19 "complete streets" refers to designing our 20 streets for all users, not just for 21 automobiles. So that means designing them so 22 that they're safe for bicycles, safe for 23 pedestrians, suitable for the elderly and 24 people with disabilities, and also for street 25 culture, cafe culture, you know, sidewalks that
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1 design, which is really dealing with green 2 buildings and how governments can use their 3 authority not just to develop green buildings, 4 but to promote them in the community. 5 Talking about health and wellness, there's 6 a lot of things in here where local governments 7 have jurisdiction that directly impact clean 8 air. For example, anti-idling education and 9 enforcement programs just as one. Then to 10 transportation, obviously, is a big one. 11 So there's a lot in here that has to do 12 with -- with getting people out of cars, 13 developing infrastructure to support that, 14 developing more walkable and bikeable 15 communities. And I'll note that each one of 16 these items that I'm showing here is a complete 17 resource guide. So every one of these actions, 18 if you click on it, you'll get a guide that 19 explains what this is, why it's important, who 20 needs to be involved to get this done, what 21 kind of expertise do you need? What's the time 22 frame for implementing it? What's the cost? 23 What kind of resources would you need to 24 implement it? And then detailed guidance on 25 what to do and how to do it. So if it's a	1 people want to be in. Obviously, all these 2 things contribute to walkable communities, 3 which lowers -- lowers driving and emissions. 4 So -- whoops. I don't know what just 5 happened. My computer is doing weird things. 6 Oh, there is an update for me. Great. 7 So we -- in partnership with Rutgers and 8 funded by some of the metropolitan planning 9 organizations, we provide detailed technical 10 assistance because this is complicated work. 11 Local governments, generally speaking, are not 12 sitting around with all their free money and 13 free time thinking of new things, waiting for 14 us to think of new things for them to do. And 15 so we quickly realized through our work over 16 the past 15 years that if we want them to do 17 more ambitious things, more complicated things, 18 we needed to provide technical assistance, 19 grants, other types of supports. And so we do 20 that. 21 And most of the supports that we provide 22 are coordinated very tightly with government 23 agencies, mostly state agencies, but also the 24 metropolitan planning organizations. So -- and 25 this is just one example of the technical

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1 assistance that we give, we will go in 2 essentially and help them identify problem 3 spots, do a feasibility study, and do the work 4 to get to the point where they can actually 5 apply for larger, like, federal and state 6 grants, like TIP and TAC grants, to actually 7 implement the complete streets process that 8 they need to actually improve their 9 communities. 10 So if we can go back to the 11 presentation -- actually, since I'm sharing my 12 screen, I can probably just do the 13 presentation. Are you seeing this? 14 MEMBER: Yes. 15 MEMBER: Yes. 16 MR. HANNA: I think we're still on the 17 website, Randy. 18 MR. SOLOMON: All right. Well, why don't 19 I turn it back over to your local control there 20 to advance the -- 21 (Colloquy) 22 MR. SOLOMON: We have a number of actions, 23 quite a few in our program that are feeling 24 (Indiscernible). As I noted, some of these are 25 complicated, which is very heavy dips	1 what is going on. 2 MR. HANNA: You were just running your 3 slides in the control room, Randy. You just 4 tell them where you want to be if you need them 5 to back up or move forward for you. 6 MR. SOLOMON: Okay. Yeah, back up to, 7 like, the fourth slide. 8 So we provide in-depth technical 9 assistance to over a 100 municipalities and 10 schools in the past few years. Most of this 11 money comes from the state but also some public 12 utilities. It includes energy tracking and 13 management, completing energy actions for the 14 sustainable Jersey certification. And in many 15 cases, helping local governments do outreach to 16 their communities in support of the clean 17 energy incentives that are run by utilities. 18 Next slide. Next slide, please. 19 We provide guides, energy efficiency 20 resources to help local governments figure out 21 exactly what they need to do and have access to 22 all the resources that are available to them. 23 It's a complex environment, so we're trying to 24 make it simple and give them very focused 25 guidance.
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1 (Indiscernible), for example, (Indiscernible). 2 It's an important program. We encourage 3 municipalities to use it. 4 But a lot of cases they -- say, people 5 can't see it. Can everyone see the slideshow? 6 MEMBER: Yes. 7 MR. SOLOMON: People have trouble hearing 8 me as well? 9 MEMBER: We can hear you. 10 MR. HANNA: Randy, It's Toby. I'm hearing 11 you on the Team's link and seeing your slides 12 moving. I'm not sure what slide you want to be 13 on. Are you able to see the slides to know 14 where you are? 15 MR. SOLOMON: I am. 16 MR. HANNA: Okay. Okay. 17 MR. SOLOMON: Yeah. 18 MR. HANNA: I think we're doing okay here. 19 MR. SOLOMON: So back to -- on the 20 previous slide. I'll just note that as far as 21 technical assistance is concerned, we've got a 22 robust energy technical assistance. 23 Toby, is he trying to move me along to 24 hurry up? I was intending to go over, like, 25 several slides previous to this. I am not sure	1 Next slide. 2 Previous slide was talking about a 3 purchasing center that we developed, I believe. 4 So the role that we've increasingly played has 5 been to just sort of step in and solve problems 6 where we see them. And one of the problems 7 that municipalities were facing was when it 8 came to, for example, purchasing electric 9 vehicles, was being able to find specs to put 10 in their budgets. It was just a very simple 11 bottleneck. So we decided to create a 12 purchasing center that has all the specs that 13 they need to make it easy for them. 14 Could you advance two slides? Maybe 15 solar, EV sources. That's good. Stay there 16 for a sec. 17 The significant program that the state of 18 New Jersey has, the EV solar program without 19 going into a lot of -- so the community solar 20 program, data center, significant program that 21 enables people who don't have a site that is 22 suitable for solar to essentially buy into a 23 site somewhere else. In partnership with the 24 Board of Public Utilities, Sustainable New 25 Jersey created sort of a comprehensive

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Page 86 1 community solar project finder that enabled 2 people who are looking for community solar to 3 be able to access all the different utilities. 4 Again, it's just an example of where there 5 was a need for, you know, to make this program 6 work better. And we stepped in and we were 7 able to quickly and efficiently produce this 8 tool. We also produce essentially the key 9 guidance for municipalities on what their role 10 is in the community solar process. And 11 particular significant new program is the 12 automatic enrollment function for local 13 governments where they can identify parts of 14 their communities that meet eligibility 15 requirements. Just automatically enroll them 16 in community solar, where other people would 17 have the opportunity to opt out. But that's a 18 really powerful tool and we could just -- 19 Next slide please. I already covered this 20 one. Next slide please. 21 This is a data center. A lot of the 22 actions that we help municipalities with 23 require specific data. And so we are the 24 repository for a lot of utility data and also 25 gather data from census and from other sources.	Page 88 1 Next slide, please. 2 So some recommendations, I could do a lot 3 of recommendations on land use treaties, a 4 number of other things. But in the interest of 5 time we're just going to focus on 6 (Indiscernible). 7 So a few things, the effectiveness of the 8 energy efficiency incentive programs. New 9 Jersey has a very robust slate of energy 10 efficiency incentive programs targeting the 11 residential sector, the local sector, local 12 governments. One thing that's going really 13 well -- and I want to give kudos to DEP as the 14 one-stop-shop -- is a really powerful tool. 15 But we do think that there are additional ways 16 that residents, in particular, but also in the 17 commercial sector, could access the state's 18 clean energy programs because it can be quite 19 confusing. 20 Another recommendation is to institute 21 minimum return on investments, in particular, 22 for the residential programs. Right now we 23 think there's, you know, we're working with the 24 BPU to sort of investigate how much New Jersey 25 residents are paying for energy efficiency
Page 87 1 So anyways, we have a very strong data center. 2 It's also very focused on specific things that 3 local governments need to implement these 4 programs. 5 One more slide. One more. 6 We have a school data center also. 7 Next slide. 8 The Board of Public Facilities has a 9 Community Energy Plan Grant program. We've 10 (Indiscernible) on sided with them. It's a 11 fantastic partnership. So anyway, it's an 12 excellent program and we are the -- 13 essentially, the technical assistance provider 14 in part, you know, funded by the Board of 15 Public Utilities to help municipalities get 16 through the Community Energy Plan Grant 17 program. 18 We also design the template and the guide 19 that helps them create these community rich 20 plans. And the idea of these plans is to help 21 municipalities quickly triage all the things 22 that they potentially could and should do that 23 can help them address the state's energy master 24 plan and also our greenhouse gas emissions and 25 energy goals. Fantastic program.	Page 89 1 upgrades on the residential level. Seems to be 2 higher. 3 Another thing that can be done would be to 4 eliminate the separate role of the resident 5 paid audit fee. Well, excuse me, in the 6 residential program, the resident has to pay a 7 fee, get an audit themselves, and then they're 8 supposed to go out and, essentially, get bids 9 from contractors to do upgrades on their homes. 10 But the other contractors won't, essentially, 11 accept that bid. And it's really just the one 12 contractor who did the audit who ends up really 13 having a shot at the -- at the job, which tends 14 to raise prices. So these two questions can be 15 separated. And then also to help lower prices, 16 we can track energy efficiency contracting 17 report data. 18 Next slide. 19 We recommend continuing support for 20 on-built financing. Right now, for a 21 while at clean energy programs, it's very 22 popular and it enables more projects to go 23 forward. Mostly, not just because it's 24 subsidized. It is subsidized but also because 25 low restriction. It makes it easier for people

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1 to just say yes to do the programs without 2 having to go through an expensive segment 3 financing process. There are some rules that 4 essentially make it so that the state is 5 considering eliminating it. It's costly. And 6 we think we can explore some rules 7 modifications that enable the state to save 8 money, not have to subsidize it as much, but 9 actually keep the functionality. 10 Next slide. 11 We'd also suggest more financial backing 12 for, in particular, overburden with local 13 governments. One thing that's going on right 14 now is that many of the incentive programs 15 offer enhanced terms for overburdened 16 communities. But there are still a few holdups 17 that prevent them from going forward. One is 18 that some of them have late payments or poor 19 credit history. So is there a way that we can 20 find that to subsidize those or offset the risk 21 for those communities so that they can still 22 access these programs? And these programs, 23 again are important because they help those 24 communities save money, which is exactly what 25 they need to be doing.	1 CO-CHAIR MR. NEUMAN: Questions for Randy? 2 CHAIR DR. OPIEKUN: Just because of the 3 technical difficulties, make sure that his 4 remarks and charts and everything or submitted 5 in to us. 6 MR. HANNA: Thank you, Randy. This is 7 Toby Hanna from the council. George, I don't 8 know if we need to unmute the hearing room so 9 we can see if there's any questions 10 from -- there you go. You got it. 11 But thanks, Randy, sorry for the glitches 12 here. But you had some good points that 13 certainly were news to me and appreciate you 14 sharing. The one quick question I have is 15 the -- on the jumbo we were seeing your data 16 resources and I had a question around that. 17 I'm not sure whether that was the answer 18 to it or whether there's more to it. But do 19 you have background information on the level of 20 uptake with our -- in our 560-something 21 municipalities in New Jersey? How many of them 22 are accessing or using Sustainable Jersey's 23 good tools? And do you have any metrics on the 24 successes they've created or, you know, maybe a 25 high level of how much you've reached and how
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1 Next slide. 2 Another holdup is health and safety 3 repairs in residential housing style. Again, 4 there are portions affecting a whole grid of 5 programs. Even in the residential sector for 6 achieving energy efficiency upgrades. But they 7 all start off with an assessment and if during 8 that assessment they find any health or safety 9 defects such as mold, asbestos or wiring 10 problems at the roof, whatever it may be, 11 they're not eligible for the energy savings. 12 Again, this is particularly problematic in 13 overburdened communities and households. 14 There have been some pilots to try to fix 15 this, but in general, one thing that the state 16 should be thinking about is how do we upgrade 17 and rehabilitate some of our older housing 18 stock on the health and safety side, which will 19 then also enable us to get existing funding for 20 the energy efficiency that we need to do, which 21 in theory saves everybody. 22 Next. That's it. 23 So despite all the technical difficulties, 24 I hope that was legible. And thanks again for 25 your time. Happy to answer questions again.	1 much more fruit there is on those trees? 2 MR. SOLOMON: Sure. Two things: One -- 3 I'm going to share my screen again, real 4 quick -- on our website there's this 5 interactive map and on this map you can view 6 all governments that are participating in the 7 program, and then you can see exactly what they 8 are doing. 9 So if you click on one of them, you can 10 view a report. That shows what they have 11 implemented, and then you can actually see the 12 specific documents that they have submitted to 13 get credit. So for example, if they got credit 14 for doing energy audits on municipal buildings, 15 you can actually get the copy of the audit. 16 And I just downloaded it. I don't know if you 17 can see it. 18 And then so we do keep statistics on how 19 many municipalities have attempted, failed, and 20 succeeded in implementing each one of these 21 actions. And you can search it. 22 CO-CHAIR MR. NEUMAN: Randy, I'm told we 23 have just about three minutes left. 24 MR. SOLOMON: So going back to that map, 25 you can search it. Say I want to see every

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1 municipal extreme temperature that -- let's 2 see, browse it that way -- so that's part of 3 the answer. 4 And then when it comes to data center, we 5 will, you know, for over ten years kind of 6 track local government participation in work 7 volatilities, and actually utilities 8 themselves, clean energy programs. When 9 that -- administration, many of the residential 10 and commercial energy efficiency programs 11 transitioned from the public utilities to the 12 utilities themselves, we started having 13 difficulties getting that data. 14 But there was a board order, I think, it 15 was last year that, essentially, told the 16 utilities to start sharing that data with us 17 again. And they have been. So we get, you 18 know, sometime in the next six months be able 19 to continue reporting local government 20 participation and aggregated data on 21 participation in all the different clean energy 22 programs. 23 MR. HANNA: That's a good answer. Thank 24 you, Randy. 25 Adam, we'll hand it back over to you in	1 Jersey's natural resources better than he found 2 them. This commitment extends to clean energy 3 and sustainable practices. Upon assuming 4 oversight of Fish and Wildlife's 36,500 acres 5 of open space, he immediately began seeking 6 opportunities to move the agency toward a more 7 energy conscious mode of operation. New Jersey 8 Fish and Wildlife continues to explore 9 opportunities to set a good example on energy 10 use and efficiency. 11 Dave. 12 ASSISTANT COMMISSIONER GOLDEN: Morning, 13 everyone. Good morning, Council. Thanks for 14 having me today. 15 Happy to present on some of the projects 16 that Fish and Wildlife has been involved in 17 related to energy efficiency. I should admit 18 that I never expected that I would be invited 19 in front of this council to talk about energy 20 efficiency. And in some ways that made this 21 presentation complicated because we do 22 wildlife. And you'll see that we've done 23 energy efficiency projects. But because I 24 never expected to be presenting on them, it was 25 hard to compile some of these slides.
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1 the hearing room if there's any more questions 2 or if we need to move on. 3 CO-CHAIR NEUMAN: If we have any further 4 questions, we'll take them at this time. 5 All right. Hearing None. Thank you very 6 much, Randy. Appreciate that. 7 Our next speaker is David Golden. He's an 8 Assistant Commissioner at NJDEP. Dave Golden 9 leads the state's Fish and Wildlife program, 10 directing efforts to conserve and enhance New 11 Jersey's rich and diverse wildlife resources, 12 while ensuring that residents and visitors 13 alike have meaningful access to the natural 14 world around them. 15 Golden's career at DEP began in 2001 with 16 the division of Fish and Wildlife's Endangered 17 and Nongame Species program. Over his career, 18 David progressed through increasingly senior 19 roles within the division, building deep 20 expertise in species conservation, habitat 21 management and stakeholder engagement before 22 assuming leadership of NJ Fish and Wildlife 23 in 2019. 24 His deep passion for conservation has 25 driven a career long commitment to leading New	1 So I think what I can give today, or what 2 I hope to give today is an operation's view and 3 a practitioner's view of what it feels like to 4 do these types of projects. I've done my best 5 throughout this presentation to roll the 6 project into our operations so you all can 7 understand, like, how we came about this type 8 of work. 9 And let's see here, I want to see if 10 pointer works and it doesn't work. Okay. It 11 does work. Okay. Got it. 12 MEMBER: User error. 13 ASSISTANT COMMISSIONER GOLDEN: So a 14 little background about NJDEP Fish and 15 Wildlife. We manage 44 percent of the state's 16 DEP's open space. A lot of times when people 17 think of open space, you think about parks, 18 forest, historic sites. We are a smaller 19 program than the -- than our sister agency 20 there. But we still manage a large percentage 21 of open space. 22 On that open space, there is an awful lot 23 of infrastructure. You can see some of the 24 statistics up there. I left the numbers out 25 for buildings and structures because sometimes

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1 I don't believe it myself. But we manage 2 roughly 300 structures and some of those could 3 be buildings that are slated for demolition, 4 some of them could be sheds, some of those 5 could be some type of outbuilding. But there 6 are -- there are a lot of structures on this 7 open space. 8 We also manage a number of Dans, boat 9 ramps, and other features to get the public out 10 and to utilize these open spaces. We're -- 11 I'll call us a medium-sized program. We've got 12 about 265 employees, give or take, depending on 13 where retirements and onboarding is. But as 14 you can see from the map, I know the people 15 online can't see my pointer, but all the red 16 polygons, those are our wildlife management 17 areas. 18 So you'll see throughout this talk, we 19 call, those WMAs, W-M-As. So if I'm talking 20 about a wildlife management area or WMA, that 21 is our designation for -- for open spaces. 22 So in 2016 -- I should say that I've been 23 in this position that I'm in now since -- 24 since 2019. Prior to that, I was our bureau 25 chief for our Bureau of Land Management. I	1 largely -- when I say largely, I'm saying 90 2 percent of our funding comes from hunters and 3 anglers through either their license sales or 4 through a tax, a federal tax that's on hunting 5 and license equipment. So we've always 6 struggled budgetarily [sic] to try to make end 7 meet -- make ends meet. Which means lots of 8 our facilities were houses and other structures 9 that may have existed on open space that was 10 purchased, right. 11 So there's three examples of our offices 12 of our 16 facilities. So 2016, we decided that 13 we wanted to develop a facilities master plan, 14 which the first step in that process was to do 15 facility evaluations. And so 16 facilities 16 were evaluated as part of this initiative. In 17 doing so, we contracted with structural 18 architects to go into each of those 16 19 facilities and give us a full evaluation. We 20 wanted to see where they were in terms of what 21 they needed immediately, what they needed in 22 the next five years, ten years. And from there 23 we could make a decision of how we wanted to 24 invest our funds. 25 So this is a report on two of those
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1 became that -- took on that role in 2015. That 2 position oversees all of this -- this open 3 space, 365,000 acres. So in that position we 4 got a really high level view of what we're 5 doing or you learn what we're doing on all this 6 open space. 7 In 2016, we initiated a facility 8 evaluation. So I said we have, you know, in 9 the hundreds of facilities or buildings, but 10 there's only 16 that we occupy. Our staff is 11 largely in the field. If you -- of those 265 12 employees, if you walked over to the Trent 13 office today, you may see 20 on a good day. 14 But, you know, most of our staff are in the 15 field in these facilities. 16 The land we manage is either acquired by 17 the Green Acres program or early on, before the 18 Green Acres program was established, Fish and 19 Wildlife, which has been around since 1892. We 20 bought properties through hunter license 21 revenues and fishing license revenues. So some 22 of the properties were purchased by hunters and 23 anglers. Now, current day, green Acres buys 24 all those properties. 25 We've been a program that is funded	1 facilities for 2017. In those evaluations, 2 they would go in and they would look at all the 3 infrastructure in the building itself. They 4 look at the grounds, they check the roof, and 5 they take some pictures, point certain things 6 out. These are some of the electrical boxes. 7 Since we're talking about electricity, here's a 8 report form just describing, you know, what the 9 plumbing looks like in this facility, it's in 10 good condition. What the interior is like 11 in -- in this facility was in fair 12 condition. 13 I had to laugh as I read this again this 14 morning. In prepping for this talk, I didn't 15 notice the first time, but if you look at 16 number four, it says the septic tank has had 17 ground hide infiltration infill the area. So 18 yeah, it seems appropriate for a Fish and 19 Wildlife facility that wildlife's working 20 against us in this case. 21 So all this, you know, most are multiple 22 pages on each facility. It leads to a final 23 evaluation of what's needed. So in this 24 particular facility, immediate repair is 25 needed. Kind of looking at an angle here, but

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1 it's about \$100,000 and the ten-year repair 2 is \$115,000. So -- and these are 2017 numbers, 3 right. So from that we looked at all the 4 facilities in this and we decided which ones we 5 wanted to demolish in each region because this 6 was part of a facility's master plan, which was 7 also a regional office master plan. 8 So a lot of demos here. This is, you 9 know, just a piece where we were talking about 10 what we're going to keep, what's going to go, 11 and then here's a map. So what this resulted 12 in, the big stars are our drive towards 13 regional offices. And I'll talk a little bit 14 about one of those towards the end. But you 15 can see a number of facilities have been X'd 16 out. They're slotted for demolition. They're 17 the ones that we decided, based on cost, we 18 weren't going to invest in. What remains is 19 about ten facilities where we wanted to put our 20 money. 21 Part of that investment was to do energy 22 audits on all of those, on all of those 23 facilities that were going to remain. So this 24 is in 2018, ten different Fish and Wildlife 25 facilities on different wildlife management	1 presentation from BPU on the energy audit. And 2 so as part of the audits they evaluated 3 building envelope, like the system day track 4 and mechanical systems, plug load equipment. 5 Helaine had mentioned that as of the 6 part -- part of what we look at what's actually 7 plugged in and what can you do to enhance that? 8 And then utility consumption, electrical 9 consumption and cost, natural gas consumption 10 and cost. And then those are the sites that we 11 did that on. Again, step one was the 12 benchmarking process. And you talked -- there 13 was a lot of mention about metering and how 14 challenging that is in a state system, 15 especially, when you've got so many buildings 16 and structures. And they're all over the place 17 and the bills get sent to Trenton and nobody 18 knows what meter is what -- is what. So we 19 actually had to -- this predates the, I'll say, 20 the lead-by-example program by a little bit. 21 And one of my recommendations, I'll talk 22 about how important it is to have a unit like 23 Helaine's if you really want to make good 24 progress on this. But we had to dedicate a 25 single individual to this effort, to the
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1 areas. Helaine had talked about our two 2 hatcheries, Hackettstown and Pequest. Those 3 are real big energy users. And I'm going to 4 talk a little bit about Pequest a little bit 5 later in the talk. 6 But we embarked then, in 2018 on energy 7 audits of all of these facilities. The first 8 step in that was to fill out the application. 9 So here's a signature sheet from 2018 for the 10 local government energy audit program. And at 11 that time, I should say that we -- before we 12 were able, before we did this through our 13 facility evaluation, we were hoping to find a 14 contractor that would do, essentially, the same 15 thing and we could. Then we became aware of 16 the local energy audit program and then we 17 moved in that direction. So it was kind of a 18 second step or second phase, even though we had 19 wanted to do it originally through our building 20 evaluation. 21 So, and I apologize, you know, you all 22 live in this world and so -- so you may -- some 23 of this may be elementary to you. For us it 24 was, you know, novel ground and I presented 25 some things here that came from our exit	1 building evaluation effort and to the energy 2 audits and energy efficiency effort, which is 3 sort of a big deal, right, because our charge 4 is wildlife. And then this seems a little bit, 5 you know, like mission creeper outside of doing 6 what we need to do. But it was important to us 7 to want to do it. 8 So the benchmarking was important. You 9 can see for Black River, it got an 89, which is 10 actually a pretty high score. And just to 11 qualify that a little bit, our staff, this 12 building in particular is a building that our 13 land management staff go to in the morning, 14 right. They might make coffee and then they 15 leave it and don't show up until the end of the 16 day. And on every other Friday, they load up 17 one computer to all do their time sheets in the 18 same spot, right. 19 So for its footprint, it seems like it's 20 super energy efficient. But you also have to 21 consider the use. It's not like you've got a 22 team of people in there all tapping away on the 23 computer all day. You know, they're shutting 24 out the lights and they're leaving for the day 25 and then they're returning. But we did the

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1 benchmarking for all of the different offices 2 with, you know, some exceptions there, as you 3 could see. 4 And then each individual office got its 5 energy consumption evaluation. And not knowing 6 how familiar everybody is with these, I'll just 7 go through it very quickly. So there's 8 different upgrades by categories. So here you 9 can see lighting, lighting control measures, 10 electric, unitary HV measures, gas and heat and 11 so on down the line. 12 So under each category there's a certain, 13 I'll say, recommendations. So ECM1, install 14 light fixtures, LED fixtures. So we'll just go 15 through that. The annual electrical savings. 16 If you were to do that right here in kilowatt 17 hours, 2,234, then that relates to an energy 18 cost savings, \$432 lifetime energy cost savings 19 and estimated install cost. So this is really 20 where rubber hits the road, especially for a 21 program like ours where, you know, money is not 22 necessarily readily available. All coming from 23 hunters and anglers. So the estimated cost for 24 this particular one, 2,898. 25 And then the estimated incentives. So we	1 trade-off analysis, investment on return 2 analysis, those are the types of things that 3 really fall off very quickly, at least in my 4 mind and I'm sure in everybody's mind. And so 5 the consultants then paired that down to what 6 were the ones that they would recommend their 7 cost effective opportunities. So big list goes 8 to a small list, right. 9 And then ultimately the list we landed 10 on -- well, I shouldn't say that. We -- go to 11 that slide just yet. 12 We went through and we cherry-picked the 13 ones that -- that we thought were doable and 14 affordable and the ones that got us the most 15 bang for our buck. So you can see if we follow 16 all of these measures, I'll say our estimated 17 net cost would be 888,000, almost \$89,000. The 18 ones that we actually did invest in were -- 19 there was \$99,000 worth of them, right. 20 So I'm kind of taking that table before 21 and compressing it down our different 22 facilities. The total measure cost, the BPU 23 incentive amount and then the cost of Fish and 24 Wildlife, the total there -- the slide down at 25 the very bottom -- \$99,619. And then the
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1 were looking at the BPU incentives, they would 2 all set some of that cost. So in this case for 3 that top line is \$300. And then our net 4 cost, 2,598. And then the big thing, really, 5 the metric we used the most was that payback 6 period. So how long does it take? If you 7 invest that net amount, what's your payback? 8 And so in this case, in this example, it 9 was six years. 10 And then the CO2 emissions, omitting 11 pounds. So -- so all those get laid out for 12 each of the facilities. Then this is one 13 gigantic table showing the same measurements 14 but for all of the buildings collectively, 15 right. And then it got chiseled down into the 16 real cost effective. 17 So let me just go back for a second. So 18 there was one example here I wanted to point 19 out. 20 So let's just take this example - sorry 21 folks, on the screen you can't see where I'm 22 at. I'm halfway down on installing high 23 efficiency air conditioning units. And if you 24 slide across, the payback for that investment 25 is 50 years, right. So as you're doing your	1 annual savings was \$43,700. And the simple 2 payback in years was, you know, just under 3 two-and-a-half years. And so those are 4 the ones we went with. Those are the ones that 5 we went ahead and invested in and we think it 6 was a great thing. 7 So just to give some examples of what they 8 are, I have a few pictures. Got them last 9 week. This is our Pequest Fish Hatchery. So 10 welcome to the Pequest Fish Hatchery. This 11 hatchery grows nearly a million trout per year. 12 Distribution across the entire state of New 13 Jersey. 14 What you're seeing here is -- sorry, I 15 didn't do those virtually -- you're not going 16 to be able to see my pointer. But the things 17 that look like swimming pools, those are our 18 raceways. So large trout get moved out into 19 those raceways, to the right of the raceways is 20 a small yellow building that's our nursery 21 building. And then to the left of that, that 22 is our hatchery building where a lot of the 23 fish are grown. So they get moved into these 24 different areas. 25 It's a fairly big facility. The larger

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1 building with the A-frame roof off to the 2 bottom left, that's our -- those are our 3 offices. And there's an interpretive area 4 there welcoming the public. But the work that 5 we did for the most part was to the hatchery 6 building with the black roof. 7 And so some examples, we talked a lot 8 about LED lighting. You can see that here. 9 Not a great shot of lights, but know that 10 they're there and the spaces in the hatchery 11 building are really large. And actually LEDs 12 work really well because our staff, after it 13 was -- after they were put in place, 'Man, it's 14 so bright in here,' you know, so they could 15 actually see better, more energy efficient. So 16 that's a win-win. 17 We are doing these, as Helaine mentioned, 18 in our 401 building. And the reaction to the 19 LED lights, in terms of brightness, might be a 20 little bit different over there, where our 21 staff loved it because it was so bright in the 22 office setting. People may be saying, 'Hey, 23 it's too bright,' you know, so --- but that's 24 something we're, you know, we'll all work 25 through together. Also HVAC system in the	1 the process to that Pequest, the energy cost of 2 Pequest of \$330,000 per year. So this was 3 going to be a great project where a need for 4 covering the raceways meets energy efficiency. 5 And we could save about \$230,000 -- excuse 6 me, \$330,000 per year. In 2018, the project 7 was third in queue of all state solar 8 initiative projects. But alas, it ultimately 9 failed due to complications with the power 10 purchase agreement. Finally pronounced dead, I 11 think, in 2022. 12 And so that was, you know, it was a shame 13 that we couldn't get there, but that was one of 14 the things that we were thinking of. And even 15 though it was a failed project, I think there 16 were a lot of lessons learned as part of it. 17 So the Pequest Fish Hatchery still remains in 18 its current state without solar array and 19 without the hatchery -- or the raceway being 20 covered. 21 Helaine talked a little bit about the EV 22 pilot project and we participated in that. We 23 currently have 13 electric vehicles, all 24 pick-up trucks that Fish and wildlife is 25 using. One difference between Fish and
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1 building. So that was a big enhancement. 2 So the Pequest Fish Hatchery, these 3 raceways that we have here, they are open. 4 Obviously, you can see that they are like 5 square, small swimming pools. And they are 6 open to the sky so birds can get in there. And 7 birds are a major source of introducing 8 disease. And so that can be problematic for 9 fish. We do everything we can to try to deter 10 birds. 11 These are, you know, flyers. This is an 12 air cannon. This is like an airman, you know, 13 the car lots. But we in 2023 -- or excuse 14 me -- 2013, 2014, birds brought disease to the 15 hatchery. There's a staph disease called 16 "podomotocis." We expect that it was 17 introduced by birds. You get these furunculars 18 on the fish there. You can see they're like 19 groves. So it resulted in us 20 euthanizing 230,000 trout. 21 One way to reduce that risk is to cover 22 your raceways. Other states cover the 23 raceways. So that led to a concept where we 24 had planned a very large solar array over a 25 race. And we started that in 2015. We began	1 Wildlife and parks, forest, and historic sites, 2 is -- which makes it a little more challenging 3 for us -- is be in a park. You plug in that 4 vehicle at the main office and that vehicle is 5 going to drive around the park. You're not 6 going to leave that park, right. 7 Fish and wildlife a little bit 8 differently. We might have one regional office 9 and everybody leaves for the day from that 10 office and they're driving far across the state 11 or at least within the region. And so some 12 feedback from staff is that the -- the vehicles 13 are great, super powerful, they have great 14 acceleration, but there is this really great 15 range anxiety. And I think that's probably 16 typical for anybody who has an EV that that 17 happens. 18 They're also having some issues with cold 19 temperature charging. And I will say that our 20 chargers, this is a chicken and egg sort of 21 scenario, right. Like you're buying EVs, but 22 you got to get chargers installed. You got to 23 get those chargers installed through the state 24 procurement contracting process. And that 25 takes a long time. So what do you do first?

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1 You buy the EVs or do you do the chargers? 2 The way it ended up for us, even though we 3 wanted to move these things together, we ended 4 up with the EVs before we had the chargers. 5 And now the staff are using the normal plug-in 6 the-wall-type charger and it's not the EV 7 charger. So that cold temperature charging 8 issue may correct itself once we actually get 9 our chargers installed. The Chargers at ten 10 field offices, they are not there yet. We are 11 in the process of putting them in. We've 12 identified the ten field offices where they're 13 going to go. They're not in yet. 14 And then last example I'll give before I 15 close here. Helaine touched on this briefly. 16 This is our Wildlife Resource Center at the 17 Highlands. This is a new facility that we're 18 currently -- we're in design and development. 19 It's set to go out to bid later this year. 20 We've been working on it for a number of years. 21 Almost a 23,000 square foot facility. It will 22 include offices, interpret space, and public 23 meeting rooms. 24 And this is an LED-certified silver 25 building. So we went through the effort to	1 Unlikely, that might be six. And then for no, 2 it's 32. So you go through all these possible 3 categories, you have to things in L-E -- oh, I 4 almost said it again -- LEED silver is 50 5 to 59. Right now we're guaranteed we have 49 6 points. And actually this is a slightly old 7 score sheet, so I know we've already reached 8 that LEED Silver certification. 9 And so before I -- before I close out 10 here, I'll just sit on this side -- slide. 11 Recommendations so in my write up I included 12 some recommendations. And I apologize for not 13 including the slide but that was a great idea 14 and I should have did it. But I jotted some 15 down as we were talking and, you know, Helaine 16 threw up her slide of thought of it. 17 So one of the recommendations is, I sort 18 of alluded to it already is that some of this 19 work that I described here, we did on our own 20 as a wildlife agency where we did not have, 21 I'll say, support from the department and we 22 had to dedicate someone to it, right. If state 23 agencies really want to advance these things, 24 you need a dedicated office or a dedicated 25 individual to get these done. Because state
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1 really try to do what we needed to do through 2 the score sheet to get to LED silver. We 3 wanted to try to go gold. It doesn't look like 4 that's going to happen. This building will 5 have two Level 2 EV chargers added. And it'll 6 be wired to easily install more chargers once 7 funding is available for that. This is a score 8 sheet. If you may not be familiar with it, not 9 sure, but there's different categories of 10 things that get scored for your LED final -- or 11 did I say LED? (Indiscernible). Okay. Sorry. 12 Yeah. For your LEED certification -- I 13 say so much incorrect. George, I depend on 14 you. 15 So for LEED certification -- so this is 16 score sheet. Different categories. Water 17 efficiency, energy and atmosphere. There's 18 inside environmental quality. And there are 19 things that are a yes, you can see score level. 20 Some things are required, right. Required, 21 yes. Other things are optional. And you want 22 to get those points in the yes category, then 23 the possible category, unlikely, and no. 24 And so this bar here for yes right now, we 25 have 49. For likely, I think, it's 23.	1 employees have full-time jobs and a lot of 2 other things. It's hard to weave this into 3 your normal operations unless you dedicate 4 staff. And that may be obvious, but I'm just 5 telling you, having lived through many of these 6 things, that it's critical if we want to 7 advance in this space that agencies have either 8 programs dedicated or individuals dedicated. 9 And that's a capacity thing. 10 The other -- there was a touch on 11 purchasing thresholds and that is super 12 important because purchasing thresholds at some 13 point you reach a level where it needs to go 14 through Treasury. And Treasury, when it goes 15 to Treasury, Treasury, it can take a long time. 16 It's another added layer of state bureaucracy. 17 And it adds ten percent to the overall cost 18 because Treasury pulls out administrative fees 19 for their work in doing your project, right. 20 I think -- I can't speak for all savings. 21 I can speak for DEP -- we have the expertise on 22 staff to handle these things ourselves. And if 23 we were able to save ten percent on all 24 construction projects and capital projects, we 25 could quite possibly roll that ten percent into

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1 more energy efficiency work. So that could be 2 a strategy not only to streamline and get these 3 online more quickly, but also to reduce the 4 cost of the project, which could be rolled into 5 supporting energy efficiency and then on to 6 solar. Lessons Learned from the Pequest 7 project. The failure of that. 8 Well, first I'll say, I think, we should 9 try that again. It's been a decade. I think 10 we've come a long way. But I do think net 11 metering and the power purchasing agreements 12 are really key. They were the link between 13 the -- that made that project fail. And I 14 think Hopefully, I'm hopeful, that we're in a 15 better place. 16 I'll admit that when Helaine had -- we 17 discussed solar on state lands after going 18 through the solar through the Pequest 19 experience, I was like, I'm not doing it. I 20 really love it. I embraced the concept. But 21 it was such a -- it was a challenge and one 22 that I'd like to avoid. So hopefully we can do 23 better there. I'm on board. I'm just, like, 24 you know, I'm gun shy a little bit. 25 And then solar placement, I believe, we	1 MS. BROWN: I think you should revisit it. 2 ASSISTANT COMMISSIONER GOLDEN: I would 3 like to. I would like to be successful doing 4 that because I think it's really really a 5 win-win. 6 MS. BROWN: Your team thought of that? 7 ASSISTANT COMMISSIONER GOLDEN: Yes. 8 MS. BROWN: It's really good. Thank you. 9 That's a -- just comment. 10 ASSISTANT COMMISSIONER GOLDEN: Yeah. 11 Thank you. 12 CO-CHAIR MR. NEUMAN: Any further 13 questions for Dave? 14 MEMBER: Yeah, I just have a quick 15 question. 16 The audits that we had done, were they 17 free audits or did you have to pay? 18 ASSISTANT COMMISSIONER GOLDEN: They were 19 free. Yeah, they were free. We didn't have to 20 pay for them. It was part of the BPU incentive 21 program clean energy -- Clean Energy Incentive 22 Program. 23 MEMBER: Great. Thanks. 24 CO-CHAIR MR. NEUMAN: All right. That 25 being said, thank you very much, Dave. We
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1 should start with impervious placement. You 2 know, as someone who comes from the wildlife 3 world and the habitat world, we have a lot of 4 impervious surface in New Jersey. And that 5 where -- that is where I feel that's how DEP 6 could really lead by example is to show them 7 that that is the place for your solar, over 8 your parking lots and on your routes. 9 With that, I will take any questions that 10 you have. 11 MS. BARR: That was great. Thank you. 12 CO-CHAIR MR. NEUMAN: Questions for Dave? 13 MS. BROWN: Yes. Sharon. 14 Really good presentation. I'm curious 15 that I heard you about the Pequest, the fail. 16 But there was some good in that too. I know 17 that this as a fact. But we have all the 18 cranberry bogs. They have a similar problem 19 with the swans where they usually do, like, 20 roping to keep the swans from coming in. And 21 when the bogs are flooded, you know, the 22 cranberries underneath, that solar array idea 23 could be, like, exported to RA. That's a great 24 idea. 25 ASSISTANT COMMISSIONER GOLDEN: Yeah.	1 appreciate it. 2 Moving right along, I'd like to introduce 3 Sara Bluhm Gibson. Sara Bluhm Gibson is the 4 Director of State Energy Services at the New 5 Jersey Board of Public Utilities, state agency 6 responsible for ensuring safe, adequate, and 7 proper utility services at reasonable rates for 8 New Jersey residents and businesses. 9 In this role, Sara oversees state energy 10 programs and initiatives for state facilities 11 aimed at advancing New Jersey's clean energy 12 goals, reducing greenhouse gas emissions, and 13 supporting the state's transition to a 14 sustainable energy future. She serves as the 15 chair of the State Energy Capital Commission. 16 Oversees all capital requests that are energy 17 related for the general fund and coordinates a 18 state facilities initiative to make energy 19 efficient improvements in state buildings. 20 For over 20 years, Sara has worked on 21 environmental and energy policy in Trenton. 22 Sara Gibson. 23 MS. GIBSON: Hi, friends. It's nice to be 24 back. 25 CHAIR DR. OPIEKUN: Where have you been?

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1 MS. GIBSON: Across the street. 2 For those of you who don't know, I served 3 on the Clean Air Council in my previous 4 capacity. And I think I chaired the hearing 5 before I left too to go over and transition to 6 up. So it's nice to be back with all of you 7 and speaking in my new capacity. 8 And it's been great to follow everybody 9 today too. I was just telling Dave the secret 10 to get around paying the eight percent on some 11 of the fees. Tricks of the trade that you 12 learn over the years. But happy to be with you 13 all today. 14 And as you have heard today and you have 15 been discussing, New Jersey has set a strong 16 commitment to clean air and clean energy 17 through the Clean Energy Act of 2018, the 18 Electric Vehicles Law, the Global Warming 19 Response Act and several executive orders. We 20 are on a path to a greener future. 21 Today I'd like to share with the Council 22 some of the successful actions of state 23 government over the past several years which 24 have resulted in energy savings and emission 25 reductions. Many of the steps that we have	1 benchmarking, which I'll talk a little bit 2 about today. We lead inner agency work groups. 3 As previously mentioned, I chair the 4 Energy Capital Commission and I also get to 5 look at all of the energy-related capital 6 requests that go before the general fund before 7 they go to the Office of Management and Budget. 8 We are able to work on policy, train others, 9 and also offer technical assistance to 10 agencies. And over the past couple of years, 11 my team has been working hard to support state 12 agencies, been building out a strategy that 13 focused on three main pillars: People, 14 resources, and technology. 15 And we've been shaping how the executive 16 branch manages energy. It starts first and 17 foremost with our energy managers. We had 18 monthly training sessions for an entire year 19 that brought together energy managers from 20 every agency for an entire day. They developed 21 out a cohort. It allowed for level setting and 22 to lead to amazing projects like some that you 23 heard here today. We worked with Treasury to 24 update the circular on energy for all state 25 entities. This included benchmarking of
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1 taken can be replicated in other government 2 settings and some of the state contracts can be 3 leveraged as well. 4 Okay. So first a little bit about my team 5 and what we do because we tend to be hidden in 6 state government and not that many people know 7 about us. But state energy services has 8 evolved over the years. It was initially 9 created by Governor Corzine through executive 10 order in 2006 and an energy office was set up 11 in the Department of Treasury. In 2011, 12 Governor Christie moved the office from 13 Treasury to BPU. And there we get to serve as 14 innovators, implementers, and a little bit 15 regulator. 16 My team is responsible for buying power. 17 We purchase the electric and gas for all of the 18 executive branch as well as 15 other state 19 government entities. So Port Authority of New 20 York and New Jersey, New Jersey Transit, 21 several of our state universities and through 22 that we have quite a bit of buying power. But 23 we also have a very steady demand curve which 24 helps us out and being able to leverage that so 25 that we can help folks out. We also lead the	1 facilities, creating strategic energy 2 management plans, and more defined roles for 3 energy managers, and also updating our 4 software. The bill payment system for energy 5 and water has not been updated in over a 6 decade. 7 And as a part of a new RFP, that just went 8 into the new contract started December 1st of 9 last year, BPU was able to get into an energy 10 management component. And I'll talk a little 11 bit more about these things. 12 Okay. So we've had a lot of progress over 13 the past five years and here's some of the 14 things that we've implemented since 15 successfully and some that we're still working 16 on in terms of full implementation. And again, 17 as I mentioned, we've had energy manager 18 training, benchmarking for state facilities, 19 increased use of our local government energy 20 audits, updating the treasury circular, 21 implementing strategic energy management plans, 22 and implementing new software. So this is a 23 snapshot of one of our energy manager 24 trainings. And as I mentioned, every agency is 25 responsible for assigning an energy manager.

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1 This is not currently a specific job 2 title, though as many of you are familiar, 3 civil service has specific job titles. And so 4 as a result, this often becomes another hat 5 that someone wears. We have some folks who are 6 from facilities, some from engineering, some 7 from administration, some from the field, some 8 who were just told to show up. And we've had 9 to make sure that everyone has the same base 10 knowledge to draw from and to build upon. 11 We're currently going through this again 12 now with our sump planning, which I'll talk 13 about too. But I also talk to them about how 14 we're doing different building blocks or we're 15 laying out those dominoes and we gotta have 16 them all laid out right. So we've been working 17 on that and having trainings offered on 18 specific topics after our initial training to 19 continue that knowledge growth. 20 We've also found different U.S. Department 21 of Energy resources for agencies to join so 22 that they can have cohorts on technical 23 assistance related to corrections or related to 24 healthcare facilities, similar to the Pequest 25 search for solar. I also -- one of my first	1 seeing what are the impacts on the building 2 there? How can that be applied to other 3 buildings? And we've given them different 4 software to act upon, sometimes to their 5 chagrin. But we are trying to update things. 6 Benchmarking. This was part of the Clean 7 Energy Act and there was one small line in it 8 that said all buildings over 25,000 square feet 9 have to be benchmarked using EPA's portfolio 10 manager five years after enactment from this 11 law. And so in 2022 we started working with 12 our agencies and state government was included 13 within that. And we were able to start 14 building out, training, and seeing what we 15 could do here as well too. This platform can 16 also be used voluntarily for buildings of any 17 size. 18 And so my team's role within this BPU was 19 the agency charged with regulating the program 20 and enforcing the benchmarking. But State 21 Energy Services is more like your friend and 22 "we're here to help you." "We're here to help 23 you set up your account; we're here to help you 24 try and find your meters and give you technical 25 assistance" and set up a lot of processes
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1 initiatives was trying to find anti-ligature 2 energy efficiency lighting for our corrections 3 department, which is not something I thought I 4 would ever have to look for. But it's things 5 like this that, you know, when folks bring 6 forward to you, here's the problem that we 7 have. How are we going to solve this? 8 We've also been able to create funding 9 opportunities, as Helaine mentioned. You know, 10 we were able to invest \$5 million into DEP to 11 upgrade this building. We have invested in 12 other buildings as well and we were able to do 13 that through a fun Shark Tank kind of 14 experience where everybody had to come and 15 pitch ideas. How's this going to help your 16 agency? What are the return on the investments 17 going to be? Can we invest in you or not? We 18 developed that cohort so that they can lean on 19 each other and learn from each other and be 20 able to have some of those discussions of did 21 this work for you or what did you learn from 22 that? 23 We've also implemented different pilots to 24 try out through some of our armories. We've 25 installed the ground source heat pumps and	1 within this. And one of the things that has 2 been brought up here today is that the state 3 government has a lot of buildings. And we've 4 got about 4,000 of them. And some of them are 5 from the 1600s, some of them are from, you 6 know, two years ago. And so there's a wide 7 range within there. But one thing that does 8 tend to be common is that most of them are on a 9 master meter. 10 And so while we had 107 properties that 11 had buildings on them that had to be 12 benchmarked, what ended up happening was that 13 we had to benchmark closer to about 1600 14 buildings because of the way that our metering 15 system is. And as a result, we have been doing 16 this now for about four years. We've had over 17 a 90 percent compliance rate. And we've been 18 able to track all of these different buildings, 19 which has been great. But it wasn't always 20 easy. And sometimes you have to send people 21 out into the field. The state police were 22 looking under a swimming pool at one point, 23 trying to find the meter. We've had other -- 24 I'm sure the forest people can attest -- they 25 were out in the woods looking for things. And

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1 it's not always easy. 2 And through that, we learned a lot about 3 our meter mapping and what is happening. 4 Government energy audit has been brought up a 5 lot today, which warms my heart. And another 6 way that you can achieve benchmarking is 7 actually to go through the BPU's program. 8 These audits are available to any form of 9 government, schools, and certain nonprofits. 10 They are free of charge and they are part of 11 the BPU's clean energy program. They provide 12 an ASHRAE Level 2 building and Level 3 lighting 13 energy audit. And it will give details on 14 greenhouse gas emissions as well as potential 15 energy savings. 16 For state facilities, we have been doing 17 solar assessments and electric vehicle 18 assessments as well so that our facilities can 19 see where the potential is. How likely is it 20 to be able to put an array up or to add 21 electric vehicle charging there? We have also 22 been able to make changes to the program so 23 that all state buildings are eligible, as well 24 as police space where the state is the majority 25 less, which is great since this isn't a	1 justification. 2 So how do we start to develop this act 3 further? One of the other things that we had 4 looked at was how to help our agencies kind of 5 continue on that planning and the checklist. 6 And for many of them, they didn't know where to 7 go next after the audit. How do you form the 8 plan? How are you budgeting for it? And an 9 important thing to realize in state government 10 is unless you have one hundred percent of the 11 funds up front, you cannot move forward and you 12 must maintain that one hundred percent of the 13 project cost at all times. So should your 14 project costs go up, the project stops until 15 you find that money. 16 And so for that we really needed to have a 17 roadmap on how to accomplish and how to 18 implement some of these changes. And our 19 solution to that was the Strategic Energy 20 Management Plan. Last year the Department of 21 Treasury updated its energy circular -- and 22 again, this is something that most people don't 23 know about -- but treasury issues circulars 24 that go out to the chief financial officers and 25 the chief administrators and sometimes they add
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1 (Indiscernible) to private sector. And again, 2 just kind of a snapshot of this. This has been 3 something that we've had a big focus on. 4 In 2021, no state agency participated in 5 the LGEA program. The year before, only two 6 had. And so after our energy manager training, 7 we had a huge push to our agencies to start 8 taking advantage of this free program. 9 Annually now, we're averaging about 30 10 properties getting an energy audit complete. 11 And it's important to note that properties vary 12 in size and complexity. A corrections facility 13 is going to be different than an office 14 complex. And the important thing, though, is 15 that we're starting to get the baseline data, 16 benchmark, and recommendations for them to 17 improve. And that this is one of the easiest 18 and most budget friendly steps government can 19 take to learn more about their footprint. 20 We've also had several agencies, as you've 21 heard today too, be able to use this audit 22 report as a basis for funding request and being 23 able to submit in additional capital requests 24 to the Office of Management and Budget because 25 they've been able to use the audit as	1 on other people too, but these are kind of the 2 thou shalls and treasury issues these out. 3 And so looking at the energy management 4 circular, the updated plan said they have to 5 have an energy manager. They have to use the 6 state's bill payment system. They have to 7 benchmark. And newly created was they have to 8 create strategic energy management plans. And 9 the first plan is due September first of this 10 year. 11 Within these plans, every agency needs to 12 create an energy team. This should be made up 13 of a variety of folks within the agency because 14 they all have an important part to play in 15 terms of tracking a building and upgrading it. 16 You have to perform an inventory of every 17 building, whether you own it or you lease it, 18 because we need to know what you have, what 19 shape is it in and what needs to be fixed. 20 We're going to evaluate what is your cost and 21 your consumption of all energy sources and 22 being able to track that and again have the 23 data baselines. Set short- and long-term 24 goals, engage with stakeholders, evaluate risk 25 and continuously improve.

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1 And from each of these agency plans, 2 they're going to be rolled up into a larger 3 executive branch Strategic Energy Management 4 Plan, which will again allow for long-term 5 planning, evaluating where we need to improve 6 systems, see where new technology might be 7 deployed and much more. But this isn't a new 8 concept. It is something that aligns with 9 proven processes like the U.S. Department of 10 Energy's 50001 ready. It allows for us to 11 track energy use intensity, greenhouse gas 12 emissions, and other KPIs. 13 We also have the opportunity to have more 14 discussions with our stakeholders on the way 15 the state is leading by example in areas that 16 aren't traditionally thought of as having an 17 energy-related mission. I think today we've 18 heard a lot about energy-related missions and 19 how they fit in and why people are willing. We 20 have a lot of agencies that this is not how 21 they view it. 22 But, you know, our friends in agriculture, 23 I've got a project going with you right now 24 where we are upgrading the bug lab. And right 25 now the bugs don't have sustainable habitat	1 agency. They're going to a centralized vendor. 2 You can log on and click and see all of your 3 bills, but it's not quite the same as, like, 4 when your bill arrives on your desk, Treasury 5 pays it. Treasury deducts it from your bank 6 account. For some of you, you might be 7 familiar, it's kind of like the automatic 8 deduction you may have for your own utility 9 where you don't necessarily look at it. You're 10 just like, okay, that went out this month. 11 The good news is it's consolidated us into 12 all one system. It allows for reductions in 13 bill processing errors and such, but at the 14 same time people don't always look at their 15 bills and so that became an issue. And how do 16 we have this so that it's easier for people to 17 see and understand? And when we were going 18 through and having the new RFP for the new 19 system, one of the things that my team really 20 wanted to add in was an energy management 21 component and an energy dashboard so that it 22 would be easy. We could include real-time 23 monitoring through interval data analytics, up 24 to date information so that it goes both to 25 your energy star portfolio manager and have
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1 because their HVAC system is not working right. 2 So HVAC is critical to my mission and I'm able 3 to help them update the bug lab so that they 4 can grow more good bugs to go out and eat the 5 bad bugs so they don't have to use pesticides. 6 And so a lot of this becomes how do we find how 7 your mission crosses with my mission and what 8 can we do to -- to improve there? 9 And in the meantime their greenhouses get 10 updated to LED lights so they're using less 11 energy, which makes me happy. And then their 12 plants are happy and then the pugs get to eat 13 better plants. It's all -- it's great. It's 14 one of my favorite projects and we try to find 15 those kind of connections with everybody. 16 Okay. So one thing nobody likes to do is 17 pay bills. And for over 15 years, the state 18 has required that everybody uses the same bill 19 payment vendor for their energy bills. And as 20 part of the benchmarking initiative we also 21 added a requirement in that your water and 22 sewer bills need to go through this system as 23 well. 24 For some, this now means a disconnect 25 because the bills aren't coming directly to the	1 that public facing dashboard. 2 And we are currently working on building it. 3 But this is an example of what we are trying to 4 build. It has a quick clear look where you can 5 see what are your different sources that are 6 being used. Are you up? Are you down? 7 Compared to last month, how does the past year 8 look? There's also going to be different 9 direct ends. 10 Let me see if I can figure out -- okay. 11 If you look here, right now we are in the 12 facility manager, and for those of you online, 13 if you look at the word dashboard next to it, 14 it says facility manager, there are other 15 dropdowns, there will be a sustainability 16 dropdown, there will be a power more in-depth 17 dropdown. And what we're going to be able to 18 do is you can go into invoice management, you 19 can click on one of the green dots in the bar 20 chart and that will pop up -- that one still. 21 But you can also see on the left we've got 22 reporting, sustainability, budgeting, real-time 23 monitoring, measurement, and verification and 24 peak load. 25 And so all of that is going to be easily

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1 displayed and folks are going to be able to 2 click through this and get it in an instant. 3 We're going to have 15-minute interval data for 4 our meters that are equipped that way and it 5 will have alerts if your building is acting up 6 or something is not going with the historical 7 data, so that our facility folks can look at 8 this and act quickly. 9 And then we're also planning on having a 10 public facing dashboard so that you can go and 11 click through any building and state government 12 and see what is it using, how much is it 13 costing to power that building. So these are 14 all exciting things that we're currently in the 15 process of building. And it's -- it's a way 16 for me to guarantee an invitation back in the 17 fall to tell you more about it. 18 So as we are continuing to build out our 19 lead-by-example efforts, we are looking at our 20 next milestone and how we get there, which is 21 one hundred percent clean energy by 2035. This 22 is going to take continued investment in how 23 our buildings run, what on-site generation we 24 use, what does our fleet look like, and what 25 does the next generation of state facilities	1 lacking some of the basics because there hasn't 2 necessarily been the investment. As Helaine 3 mentioned, replacing light bulbs is one of our 4 biggest opportunities, but it's also one of our 5 biggest failures because we haven't been doing 6 that. I also heard the discussion about 7 reducing DPMC fees and again, for basically 8 projects over \$200,000. The state has to use 9 the Division of Property Management 10 Construction as their general contractor. 11 And for the most part each project comes 12 with an eight percent fee. BPU has been able 13 to negotiate with DPMC for reduced fees on 14 certain energy-related projects. I think that 15 that is an area where we could probably browse 16 and look at what other types could we do that 17 would have a lower percentage of the overall 18 project. 19 I also think that we don't take enough 20 advantage of associations that we belong to. 21 The state belongs to the national association 22 of State Facility Administrators. And I'm one 23 of the most active people in state government 24 in it and Treasury pays the bill. So I, of 25 course, am going to participate because it
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1 look like. We have to continue to build out 2 the investment in people, training, and 3 planning. And I think in terms of some of our 4 greatest areas to continue to look at space 5 optimization. 6 Where are the people in our buildings? 7 How often are they there? Do they all have to 8 be on the same floor on certain days of the 9 week instead of spread throughout? I'm one of 10 five who works on Fridays on my floor. I 11 got 5,000 square feet to myself for the most 12 part. It drives me nuts because I want to move 13 everybody else down with me. But looking also 14 at data driven retrofits with a priority on 15 high consuming facilities. We have this data. 16 We can tell you who the most expensive building 17 is, what the most expensive property is, which 18 radio tower costs the most. There's different 19 things that we can do to drive down these costs 20 as well. 21 I think we also need to be looking towards 22 the future of how do we deploy strategies that 23 allow us to be flexible with buildings. 24 Whether it is our smart meters, our controls, 25 vehicle to grid and more. Right now, we are	1 costs nothing to my agency and anybody in state 2 government can participate in it. And it's 3 made up of 49 other states that also have state 4 facilities, and we can learn from each other. 5 Some of that again is just getting out the word 6 and trying to pull in people to webinars and to 7 other things but using some of that knowledge 8 sharing. 9 And then I think lastly, I would leave you 10 with. That we have to recognize in state 11 government change is incremental, but it needs 12 a lot of support as well too. And so sharing 13 some of these stories about our successes, 14 sharing the payoffs and why it's worth it to 15 invest, they all help with the next time that 16 we need to go and invest and move on. 17 Thank you very much. 18 CO-CHAIR MR. NEUMAN: Questions for Sara? 19 MEMBER: Well, Sara, you came a long way 20 when we used to talk about sustainable benefit 21 charges and all that you're doing. 22 Interesting times now and, you know, this 23 time of year with the legislative process, the 24 agencies are coming before the legislature and 25 giving their update and their needs and

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1 everything. The stuff you present is great. I 2 mean any chance that, I guess, when Christine 3 goes before Senate and Assembly, you could feed 4 some of that. Obviously, you have a good story 5 to tell, especially in light of the fact, you 6 know -- you and I, when we worked together back 7 in the day -- there's healthcare costs and all 8 of a sudden energy is starting to really be the 9 dominant issue that's out there. So, you know, 10 I'm always looking for the glass half full as 11 opposed to half empty. So you see 12 incorporating some of that, you know, during 13 these times. 14 MS. GIBSON: Yeah, definitely. I would 15 say one of the benefits of my working with 16 Treasury often is that they are very cognizant 17 of energy costs. My team as well. We buy 18 power at a not typical time of the year, shall 19 I say. We are not lined up with the budget 20 cycle. We are not lined up with the energy 21 year. We tend to buy power in October and 22 November. So right at the beginning of the 23 heating season as well. And that's usually 24 when I have to call Treasury and say, so here's 25 what the bill for next year is going to be	1 MEMBER: Very good. Thank you for 2 participating. 3 CHAIR DR. OPIEKUN: Sara, you made some 4 great recommendations. Could you send me an 5 email with that written up? 6 MS. GIBSON: Yeah. 7 CHAIR DR. OPIEKUN: Thank you. 8 MEMBER: I just have one question. 9 MS. GIBSON: Yes. 10 MEMBER: This theme of contracting has 11 been common this morning, whether it's the fees 12 and limits where Treasury has to review it or 13 just the local government contracting law and 14 the limitations you have on timing. Has there 15 been any consideration about a global sort of 16 reform of some of that focused on the energy 17 purchases by not only the state of 18 municipalities, et cetera, so that we're not 19 running into that, what I'll call, financial 20 bureaucratic issue? 21 MS. GIBSON: Yeah. So again, I think the 22 benefit of the state contract is that it does 23 check the boxes for local government and the 24 schools and the community colleges and they all 25 have slightly different but state contracts do
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1 because our contract is January to December. 2 And so I get to have these conversations 3 throughout the year. 4 And then also as we start building out 5 budget requests for next year, I have the 6 opportunity to talk to different agencies about 7 that as well too. And there is a lot of 8 conversations that happen about what can we be 9 doing, what steps are we taking? Solar is a 10 great conversation we're having now too, as we 11 try to redo a contract for that and what's the 12 best fit for state agencies; how can we offset 13 some of our power needs? 14 That's -- another area too, whereas we 15 look at backup storage and within state 16 government we have kind of two sides of the 17 coin. We have our 24/7s and we have our 18 offices. And they both also have a lot of 19 different needs. And my 24/7s, which have my 20 biggest power demands also have my most federal 21 regulations. And I can't necessarily switch 22 them over to things that don't have four days' 23 worth of back-up power. So it's been an 24 interesting conversation to have. But yes, we 25 have that quite often.	1 meet all of the qualifications for the other 2 ones. And so I think to the extent possible 3 where we do have state contracts, others have 4 been able to leverage off of that. 5 So as I mentioned, our third-party supply 6 contract, we have 15 other participants who are 7 government entities. Our solar contract, while 8 not as successfully used by the state, was used 9 by the College of New Jersey. It was used by 10 New Jersey Transit, so others have also used 11 it. And I think we are continuing to have more 12 of a conversation. And again, that's partially 13 where we also leverage our colleagues in other 14 states so we don't have to reinvent the wheel 15 and say what did your contract look like? How 16 can we make ours better? And we are constantly 17 doing that and trying to see what can we do. 18 And then my other secret sauce is that the 19 Department of Military and Veterans Affairs, 20 which just half split up, but before that they 21 did not have to go through the same contracting 22 as us. So sometimes I could pilot things 23 through them and work out the kinks and then be 24 able to bring them back to other agencies. 25 Thank you.

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1 CO-CHAIR MR. NEUMAN: We're just about out 2 of time. 3 Thank you so much, Sara. We greatly 4 appreciate it. 5 MEMBER: Go right into public comment. 6 CHAIR DR. OPIEKUN: Yeah, at this time 7 we're open for public comment. So if you 8 signed up on the list or have contacted George, 9 if you're online, you have a two-minute window 10 to speak to the council. 11 CO-CHAIR MR. NEUMAN: And out of respect 12 for our speakers, we did run a little bit over. 13 So we will keep the public comment section open 14 for 30 minutes which will put us at 12:52. 15 (Colloquy) 16 CHAIR DR. OPIEKUN: All right. So 17 that's -- what we're going to do. We're going 18 to take a recess for a lunch break and then 19 come back in what, 20, 25 minutes? Yeah. 20 CO-CHAIR MR. NEUMAN: 25? Okay. 21 CHAIR DR. OPIEKUN: 25 minutes. 22 (Recess) 23 CHAIR DR. OPIEKUN: Okay. Everyone, we're 24 back on the record. 25 So we're at the stage where we're going to	1 asked it. 2 Len may have a motion, but we'll wait for 3 that. 4 DR. BIELORY: I was waiting for someone to 5 turn on the sound. 6 CO-CHAIR HANNA: Do we have no -- 7 MEMBER: It's up to you, Len. 8 DR. BIELORY: I make a motion that the 9 Clean Air Council public hearing be adjourned. 10 MEMBER: Second. 11 CHAIR DR. OPIEKUN: All those in favor? 12 ATTENDEES: Aye. 13 CHAIR DR. OPIEKUN: Anyone opposed? 14 15 (Adjourned: 1:11 p.m.) 16 17 18 19 20 21 22 23 24 25
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1 take any kind of public comment. So if anyone 2 is online that has a comment and would like to 3 make it, you have a two-minute window to speak. 4 If any of the peers from the college, which I 5 don't see, but anyway -- 6 MEMBER: Len is gesturing to adjourn. You 7 could ask Lenny. 8 CHAIR DR. OPIEKUN: Len, do you have a 9 comment? Not the one we think you have. 10 Can he hear us? 11 MEMBER: Can you guys hear us online? 12 MEMBER: Oh, I think our mic is muted. 13 CHAIR DR. OPIEKUN: Oh, we're muted. 14 We're muted. 15 Can you unmute us? 16 Thank you. 17 MEMBER: You're live. 18 CHAIR DR. OPIEKUN: Len, do you have a 19 comment? 20 DR. BIELORY: I do not have a comment. 21 CO-CHAIR MR. NEUMAN: Toby? 22 CHAIR DR. OPIEKUN: Toby, do you have any 23 comments? 24 CO-CHAIR HANNA: I was just asking to turn 25 the speakers on but you did that before I	1 C E R T I F I C A T E 2 3 NEW JERSEY CLEAN AIR COUNCIL PUBLIC HEARING 4 ----- 5 Leading the Charge: How Government Agencies Slash 6 Their - Emissions Without Breaking Budgets 7 8 I, NILZAIDA C. REYES, a Certified 9 Deposition Reporter and Notary Public, do hereby 10 certify that I reported the proceeding in the 11 within-entitled matter on Wednesday, 12 April 29, 2026, and that this is an accurate 13 transcription of what transpired at that time and 14 place. 15 16 _____ 17 NILZAIDA C. REYES, CDR-4570 18 19 20 21 22 23 24 25

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