NYSERDA Board Meeting – Clean Transcript October 6, 2020

Richard Kauffman (00:00:00):

I call this meeting to order.

This is the 248th meeting of the New York State Energy Research and Development Authority. I note for the record that a quorum is present. Notice of the meeting was provided to the Members and to the press on September 24, 2020. I direct that a copy of the notice and agenda be annexed to the Minutes of this meeting and welcome everybody to the meeting. This meeting is being conducted by video conference. The Authority will post a video and a transcript of this meeting on the web. [inaudible] formally that we have a quorum. I would like to ask the Authority's Secretary Peter Costello to conduct a roll call of each of the members in attendance.

Peter Costello:

Peter Costello:

Thanks. Kate Fish.

Thank you, Mr. Chairman, I will first note your attendance and now take the remainder of the roll call. When I call your name, please indicate present. Authority Vice Chair, Gil Quiniones.

roll call. When I call your name, please in
Gil Quiniones: Present.
Peter Costello: Thank you. Shere Abbott.
Sherburne Abbott: Present.
Peter Costello: Chuck Bell.
Charles Bell: Present.
Peter Costello: Ken Daly.
Ken Daly: Present.
Peter Costello: Commissioner Dominguez.
Marie Therese Dominguez: Present.

Commissioner Seggos.
Basil Seggos: Present.
Peter Costello: And Mark Willis.
Mark Willis: Present.
Peter Costello: Thank you, Mr. Chairman. I confirm that we have a quorum.
Richard Kauffman: Thank you, Peter. All right. The first item on the Discussion Agenda is a report from the Authority's Acting President and CEO, Doreen Harris. Doreen?
Doreen Harris: Thank you. And good afternoon, everyone. If we could turn to the next slide, please.
I do want to thank you all for the warm welcome to me as NYSERDA's Acting President and CEO. It was at the last meeting where this position became formal and I very much appreciate the opportunity to connect with each of you over the summer to learn more about your observations and priorities for NYSERDA as we advance our work together. I am continuously impressed by the expertise of this Board and your commitment to our collective work. So, I am thrilled to be serving in this role and working with the Chair and the Members in this capacity. In fact, October marks my 10th anniversary at

NYSERDA. We have certainly accomplished a lot together in that time, but at this moment, and in this

And you'll hear today, multiple discussions around the multiple crises that we are facing as a state and as a nation and as a world. The crisis of COVID-19 certainly, but the additional crises of climate

time I believe our important work takes on even more urgency.

Kate Fish:

Jay Koh:

Peter Costello:

Peter Costello:

John Rhodes:

Peter Costello:

Present.

Present.

Present.

Thank you. Jay Koh.

Thank you, Jay. PSC Chair Rhodes.

change and equity, which in my view require our best thinking and the most efficient use of the tools we can offer together to address these barriers and build back our state stronger than ever.

So, as you'll hear today, it has indeed been a very busy quarter here at NYSERDA and with accomplishments and plans that we can all be proud of. But with much more to do as we close out 2020 and beyond.

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It has certainly been a challenging summer in many regards for New York and for the world with our COVID-19 response remaining at the forefront. I know we've spoken as a Board about this topic in the past, but the ongoing issues of climate change impacts and systemic inequity impacts all aspects of life and, in continued events have brought these issues forward in new and important contexts, which are important to our collective work.

So, as we've discussed previously, incredible sacrifices have been made by all those working on the front lines of the state's response. And specifically, the state agencies, including those represented on this Board. I have certainly seen mission critical work increased dramatically in volume and importance. And certainly, our staff at times has been deployed to support the response as well. So, we get, and NYSERDA moved quickly to take, feedback from stakeholders and to respond with programmatic adjustments and increased flexibility to help our clean energy industry safely get back to work in accordance with New York Forward.

So, while work has resumed across the state and we've been able to advance some carefully executed events and site visits, much of our staff continues to work remotely while we actively monitor the dynamic situation in our state.

It's equally important to note though, that Governor Cuomo has regularly highlighted the disproportionate burdens born by low income communities, the elderly and communities of color, and those are many of the same communities, most vulnerable to climate change. So, we feel, and we believe together that there is no climate justice without addressing racial and social injustice as well. And together we know these aspects permeate American life in all, in so many different ways.

So, on climate we have been witnessing and what we will be discussing today is really a shift from the future tense to the present tense. Climate change is happening now, it's affecting Americans now, and it is no longer the case that it will be affecting us or forecasting to impact us. We are watching it unfold in real time, and we on the East Coast certainly cannot watch the events in the West and the South and think that we are immune either.

So, it's important to note that what is happening in California is impacting us as well. We saw it in our weather conditions alone. In fact, I just saw yesterday morning. We now have one fire that is now known as a giga fire in California. The first in the state and decades and it is burned, it is burned acreage larger than the state of Rhode Island. The rolling blackouts, the preemptive utility power shutoffs, and the impacts of wildfires are all indicative of the future that we can see collectively. In addition, in the South certainly we've seen the extreme heat following Hurricane Laura and still people without power as a result. So, this is our 2020, and this is our call to action, as described.

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But we in New York have the benefit of it, the Climate Leadership and Community Protection Act, which NYSERDA and our fellow agencies have been very busy implementing over the last three months. And it does implement this topic of climate justice into all of our actions together. The good news I can share today is that the Climate Action Council, the governing body established by the CLCPA, has significant activity underway. With my Co-Chair, Commissioner Seggos, we have made significant progress, first with the appointment of the advisory panels and active meetings of those panels. Those panels are going to be very critical for making sector specific recommendations to the council and the ultimate scoping plan that we produce. In addition, the Climate Justice working group has been convened along with the Just Transition working group and will continue their role in providing advice and recommendations in their respective areas of expertise namely disadvantaged communities and workforce related topics.

And in fact, just on Thursday, my Co-Chair Commissioner Seggos and I, will be chairing the next meeting of the Climate Action Council, where we will review the work plans of the advisory panels and their plans specifically to contribute to the scoping plan, which is due in draft form by the end of next year. As the slide notes, it was very important for these groups to reflect the diverse composition among racial, gender, geographic, industry, and other dimensions and outlook that we at NYSERDA are looking inward around a piece of work that we are advancing along the lines of diversity, equity and inclusion, that I'll speak about in just a minute. So indeed, our work is well underway and implementing the CLCPA, something we can all be very proud of.

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And, against this backdrop, it has been a very busy month, a few months, for NYSERDA, and I think it's fair to say that a major through line you can draw between all of our activities has been a focus on making demonstrable progress, not only toward the achievement of our goals, but with a strong focus on climate and environmental justice. So, I want to acknowledge the good work of our agency heads in these areas. Many of whom are reflected on this Board. So many thanks to all of you for these major milestones, which you can see here, are across the sectors, the building sector in the built environment, the transportation sector, and the renewable sector. All very significant milestones from July and important progress that has been made as a result of these three hallmark announcements.

In addition, many of you will note that we launched \$10 million in funding in June to address market barriers for solar and energy storage adoption by LMI customers and communities. All part of our solar energy equity framework that we are now advancing under New York Sun. And just last week, I was pleased to be joined by Lieutenant Governor Hochul, as we launched the career pathways training partnership with a focus on HVAC and heat pump careers, which was a really nice event as well. So, all told, we have made very significant progress from a programmatic perspective as noted here.

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From a statewide perspective, we've also made very good progress from the perspective of citing. Recalling Governor Cuomo is important, the citing legislation, the Accelerated Renewable Energy Growth and Community Benefit Act. We want to note three major developments: first, the release of the regulations of the new office of renewable energy citing which have been issued for public comment; in addition, we at NYSERDA have been very busy advancing the New Build Ready Initiative that was included within that legislation; and lastly, we have been working very closely with the

Department of Agriculture and Markets to consider and implement better processes for smart solar citing in consideration of farmland and land use issues.

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And many of you will know it was a very, very active Climate Week. It came and went in the blink of an eye, but it was action packed. And I was very pleased to be part of many of the events, as you can see from the photos here (I think President Quiniones is represented in at least one, if not two). We, along with our fellow agencies, rolled out an impressive series of announcements and progress that really builds momentum between now and the end of the year. I won't go through them all in detail but I think, for me, what was very exciting, particularly exciting, to see was the breadth of engagement on the part of multiple agencies. You can see, of course, many colleagues at DEC and NYPA were involved, but also we now see a very important announcement from the Department of Financial Services and the Port Authority of New York and New Jersey as indicators, again, of the breadth of the CLCPA and its implementation in a cross-cutting manner. So, climate week is done but in many ways it's just beginning with the work that was launched around those milestones.

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And as we look forward we are certainly not winding down. In fact, quite the opposite. We have a number of important milestones coming our way, which I look forward to sharing with you, I hope at our January Board meeting specifically, very important milestones in our ongoing solicitations for offshore wind and land-based renewables, but also a very important filing in the Clean Energy Fund with respect to the triennial review, which will set the course for the future and evaluate the past performance of the program along with a number of other studies and developments in that timeframe. In addition and something you'll hear more about later in this meeting from my colleague, Janet Joseph, we are actively developing our 2021 through 2024 Strategic Outlook. As part of it ,we will be looking at some pretty substantial changes in in our operation reflective of the CLCPA, which we'll hear more about in a bit. And I will also share with you work we're doing in the diversity, equity, and inclusion strategic planning process, and we are hard at work preparing for State of the State, as would be expected at this time of year.

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So, specific to the Strategic Outlook, again, just in general, it is the time of year in which we advance our work and we'll be looking forward to a fulsome discussion in January on this topic. I want to point out that while we will retain our five core mission outcomes, there are four strategic focus areas that you'll hear about in just a minute. These new focus areas we believe are reflective of the priorities that we have as a state under the CLCPA and really set the stage for, I would say, a NYSERDA focus consistent with that direction of the CLCPA. So, we'll be talking about that more in just a bit.

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But I do want to note, the fact that as part of this work around our strategic planning process, we as an Executive team have begun to take a fresh look at our mission and vision statements, which have, by all accounts, been in place for quite some time longer than some of our veterans can recall. And so, we would say, that it is now a useful time to undertake a reconsideration of our mission and vision again, in the context of the CLCPA, and to incorporate some of our new priorities as we move

forward together. So, in January, we'll look forward to talking a bit about where we've landed with respect to a proposed revision in the context of our strategic planning processes.

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And as I close out my remarks I do want to note that we at NYSERDA are also taking a holistic review of our institutional practices and processes regarding diversity, equity, and inclusion, which are indeed core to NYSERDA's mission. We are prioritizing opportunities within our own organization to include these diverse perspectives and to promote underrepresented voices wherever possible. I've said since I've taken on this role and I'll say it again, you know, it is our, we will do our best work when we are ourselves representative of the New Yorkers that we seek to serve. And so it is through this process, that we work to not only educate our staff around these topics so that they have common understanding, but also to set forth a strategic planning effort that will, we hope to be able to present to you in January, around the particular strategies and tactics we believe, we can take at NYSERDA to really continue to be better in all aspects of this effort. So again, I see these goals, the goals of the CLCPA and the goals of NYSERDA, in this respect as inseparable and both critical to achieving our mission.

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So with that, I will conclude my remarks. And thank you again for your partnership, collegiality and for your work together and advancing the mission of NYSERDA. So, I'll turn it back to the Chair, should there be any brief questions.

Richard Kauffman:

Yes. Questions for Doreen, or comments?

Kate Fish:

Doreen, this is Kate. So, two comments or... One, thank you to NYSERDA for participating in our Clean Transportation summit last week. It went really, really well, and you guys were central to that, in driving clean transportation up here in a very rural part of the state. And second is, I really am glad that you're taking on the DEI challenge. It is something that we as an organization are doing, you know, as you know, we house the Adirondack Diversity Initiative, and it's really, really important and really challenging. So, I applaud you for taking that step.

Doreen Harris (00:19:27):

Thank you. I will note, I know John Lochner was lucky enough to be at the event and we'll be hearing from him a bit in a bit around the transportation portfolio. I think there's some really exciting sort of clean slate activities that we're working on there, which are particularly interesting, given that. Yeah. Thank you, John. Your presentation was great.

Ken Daly:

Doreen, it's Ken Daly, similar comments as Kate, you know, first of all, great you off since you've been appointed, I really like the way you've defined the intersection between the impacts of COVID and the impacts of climate change on certain communities. So I guess my first question is, you know, is there any tailwinds coming out of COVID where we're seeing cleaner air, we're seeing less volume, is there any we can build upon and make it more of a permanent change? And then in terms of diversity and inclusion, you know, absolutely agree with your comment in order to serve these communities, you really need the best understand them, but I also believe you need to also hire from them. So, I'd be

interested in hearing, you know, what some of NYSERDA's IMD efforts are in terms of recruitment and staff diversification as we go forward.

Doreen Harris (<u>00:20:44</u>):

Yeah. Thank you, Ken. I'll take the second question first in saying that, you know, if I were to predict one major action coming as part of our strategic planning process, it will be recruitment. We have, you know, I would say 'work to do' in that respect that I would imagine will emerge as part of this, but in typical NYSERDA fashion, we're not waiting. We have the opportunity and have, in many cases, begun that process already for very deliberately integrating and engaging with the communities from which we seek to hire. It is true that, you know, it takes, I would say, additional effort but with great promise. We're seeing already some really exciting candidates come forward, but I do think we can do more and I'm not satisfied, certainly, with the status quo in that regard. So, I think in January it would be a good topic to talk about as part of the strategic planning process, where we believe we can better recruit. And as you say, actually have people, more people on our staff who are reflective of that diversity.

I would agree wholeheartedly with respect to, you know, I would say some of the benefits, if you will, if there are any, of COVID, it certainly has come in the form of improvements in air quality. And my colleagues I'm sure can speak to the numbers you know, as it relates to specifically to, you know, some of the reductions in load and the changing situations with respect to transportation and the like, I think it cuts both ways. And my observations are both that there's been, you know, improvements in some respects, but also challenges and others particularly around public transportation. One of the real linchpins of decarbonizing our transportation sector is the use of our subways and our trains and our buses and the like and it is, you know, at the point we receive a report weekly that, you know, the ridership is, is significantly down. And that's a real challenge for us in the work that we're doing around decarbonization. So, I would say that there's, it is a very different world than the one we walked into 2020 with. And, and, you know, I think from an analysis perspective and a planning perspective it's become integrated into some of our Pathways work as part of the Climate Action Council, as well.

Ken Daly (00:23:25):

Great. Thank you.

Richard Kauffman:

Alright, Doreen, thank you very much. I think we all look forward to the next meeting where we can get an update on your work and discuss it more. So, with that, I'd like to go on to the next item on the discussion agenda which is, which are proposed amendments to the Authority's Budget for Fiscal Year 2020-2021. Jeff Pitkin, the Authority's Treasurer, will present this item. Jeff.

Jeff Pitkin (00:23:59):

Good afternoon. Based on discussion feedback at the June meeting, we've proposed revisions to the fiscal year 20-21 budget to reflect changes to certain revenues and expenditures that have been materially impacted either by COVID-19, or changes to market interest rates, changes in funding expected to be received or available, or just generally updates for current information. The details of the budget changes are priced in the memo in your board packet. I won't go through them in detail, I'll just note that, in summary, the revised budget includes about \$1.3 billion in revenues, an increase of about \$32 million from the original budget. And on the expenditure side, the revised expenditures are about \$1.2 billion, a decrease of about \$124 million from the original budget.

The net result of those changes results in revisions to our projected net position balance that we expect to end the year with. And our unrestricted net position is projected to be about \$4.3 million, or a reduction of about \$532,000 from the original budget, but an amount that we still believe is fiscally prudent and reasonable and sufficient to meet the general working capital needs, as well as any unanticipated needs that could arise to protect public health, forget the West Valley site. So with that, I'd be happy to address any questions that you may have on the changes.

Richard Kauffman (00:25:28):

Questions for Jeff?

Ken Daly:

It's kind of down, you know, my only question, I mean, in general revenues up/expenses down, usually a good thing, but I guess my question is how much of it is simply, you know, deferrals of work until the future? Which, given a COVID year, I certainly understand the drivers, we're just having a hard time understanding how much of it is kind of real "in year" and how much is it just a shift in timing for stuff we had hoped to get done and now has to get done at a future point in time?

Jeff Pitkin (00:26:02):

Well, it's, I suspect the answer is, it's a little bit of both. I think you know, in the case of revisions, for example, in the New York Sun Program, you know, that the team has forecasted some revisions for project completions. I think that's a, that's a durational issue, right? Expected completions within the, within the year. I don't think we see that necessarily as being a statement on the longer-term prospects of deployment that we expect from that initiative. And I think with several shifts that we have under the Clean Energy Fund for both market development and innovation research, I think a similar story, I think it's a little bit of timing delays, you know? Slow down and, participation or progress in, in initiatives, but I don't think it speaks to the, you know, any kind of a longer term or more permanent reduction. I think it's a bit more of a timing. And then, you know, this is confusing, you know, the revenue's up, expenditures down. I mean, some of that gets a little bit masked. Some of the revenue adjustments cause, normally, our revenues kind of go in line with expenditures. And so, the one thing I'll just note to clarify any confusion, there's a bit of a combining effect on the revenue side of the impacts of the process for Green Bank's capital calls. They've been very successful at deploying capital, and so the kind of the capital calls, which resulted in kind of draw down on, on revenues have kind of offset what otherwise would have been further reduction in revenues that correspond to the reductions in the program expenditure activity.

Ken Daly (<u>00:27:46</u>):

Okay. Great. And then with the new budget or the revised budget, does this significantly increase the likelihood that the end of the year position will be, you know, more in line and less of some of the large fluctuations that we tend to see?

Jeff Pitkin (<u>00:28:00</u>):

So, we hope so. Never say never or, however you say. I think we took both bottoms up and a top down approach here and I think that was feedback, you know, you and others have provided in the past. And so the teams kind of went through a particularly for the Clean Energy Fund, went through detailed initiatives to provide updated projections, but then we kind of balanced those with some kind of top down adjustments that I think were intended to try to minimize those types of fluctuations that you'd noted in the past.

Ken Daly (<u>00:28:35</u>):

Great. Okay. Thank you.

Jeff Pitkin:

Thank you, Ken.

Richard Kauffman (00:28:41):

Other questions for Jeff?

Jay Koh:

Sorry. Jay Koh here. Jeff, thank you for the presentation and the revisions and the explanation. The questions, maybe another wide approach is simply to say, you know, the changes in the budget reflect some of the timing issue. Can you verify, or is it a fair characterization to say the changes in the budget revisions reflect some changes in the allowances, and other timing issues, but no major programmatic is that it should resolve in a different way that we should evaluate the current prioritization of these activities or unexpected material differences in the performance of existing programs. Is that a fair characterization?

Jeff Pitkin:

That's correct Jay. Thank you.

Jay Koh:

Thank you.

Richard Kauffman:

Thank you, Jay, for that question. If there aren't other questions for Jeff, may I have a Motion for Resolution Number 1603, approving amendments to the Authority's Fiscal Year 2020-2021 Budget?

Jay Koh:

So moved.

Richard Kauffman:

I'll take that - we've had a second as well. When Peter calls your name, please indicate whether you are in favor by stating aye, opposed by stating no.

Peter Costello (00:30:00):

Thank you, Mr. Chairman, I will start with you for your vote.

Richard Kauffman (00:30:04):

Aye.

Peter Costello (<u>00:30:05</u>):

Thank you. Vice Chair Quiniones.

Gil Quiniones (00:30:09):

Aye.

Peter Costello:

Thank you, Shere Abbott.

Sherburne Abbott: Aye.
Peter Costello: Shere Abbott.
Sherburne Abbott: Aye.
Peter Costello: Thank you. Chuck Bell.
Charles Bell: Aye.
Peter Costello: Ken Daly.
Ken Daly: Aye.
Peter Costello: Commissioner Dominquez.
Marie Therese Dominguez: Aye
Peter Costello: Thank you. Commissioner. Jay Koh.
Jay Koh: Aye.
Peter Costello: PSC Chair John Rhodes.
John Rhodes: Aye.
Peter Costello: Thank You. Commissioner Seggos.
Basil Seggos (<u>00:30:43</u>): Aye.
Peter Costello

And Mark Willis.

Mark Willis (<u>00:30:46</u>):

Aye.

Peter Costello:

Alright, thank you. Mr. Chairman, the amendments to the Fiscal Year 2020 - 2021 Budget have been approved.

Richard Kauffman (00:30:55):

Well, thank you. The next item on the agenda is a report on the Innovation and Transportation portfolios from Vice President for Innovation, John Lochner. John, I see you somewhere.

John Lochner (00:31:10):

Yes. Thank you. Thank you very much. And good afternoon everyone. I was asked to give a brief overview of the new DPS Transportation Order and the topic of resilience given previous interest expressed by a number of our Board Members and a continued interest at NYSERDA in moving forward on the topic. I will try to keep my comments to half the allotted time to leave time for questions and comments.

Next slide please, John.

So to begin with, what is "make ready"? The New York PSC authorized the six New York IOUs to collect up to \$701 million from customers to fund a new EV "make ready" infrastructure program that will incentivize development of thousands of public charging locations. And so, the first question I usually get after that sentence is, again, what's "make ready"? So, to begin with, when we discuss "make ready" in the context of EV charging infrastructure, the term refers broadly to the infrastructure between the traditional utility side infrastructure and the actual EV chargers. So, the connection, in other words, of the EV charger to the grid. This can include step-down transformers, electric service panels, conduit, switch gear, mounting pads, and other similar gear, and in the case of this order and the incentive that it offers, certain make ready equipment and installation on both the utility and customer side of the meter may be covered by the order's incentives.

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With a variety of different methods to incentivize EV adoption, the question arises as to why this work is needed and how it fits into supporting vehicle electrification. To start, the business case for EVs and EV charging stations continues to improve, but it does not do so at an organic pace by which New York can meet its desired goals. Thus, we continue to require some kind of intervention to support EV deployment, alongside NYSERDA rebates for chargers and vehicles. The order provides an opportunity to engage utilities using their skills at building, managing the power grid and scaling deployment of critical electrical infrastructure and the further into EV adoption previous to this order, utilities could not earn a return on the customer side portion of the make ready investments. The order now allows them to treat part of these as regulatory assets. Additionally, previous to this order, utilities could only earn a return on the utility side "make ready" infrastructure, if the utility adjusted its capital plans to include this infrastructure and took the risk of its appropriate utilization. With the order, utilities are now able to rate base the equipment on their side of the meter specific to the infrastructure deployed by this order. The result is that this order enables utilities to play a more proactive role in supporting the deployment of EV charging infrastructure.

Additionally, and importantly, the order also leaves the private sector leading site selection, and thus determining the take, and taking the risk of market need for the charger at any given location. Additionally, the order leaves developers owning the chargers and being required to make their own business case for their ongoing operation. But thanks to the order, the opportunity to make a viable business case for the chargers is substantially improved.

This brings me to the incentives offered through the order that will enable the developing of these EV chargers. The incentive will fund up to 90% of the cost of "make ready" components for charging stations that are fully publicly accessible and where standard plugs are used. The incentives dropped to 50% or less where plugs are nonstandard such as Tesla chargers, but they raised to 100% in the case of chargers that are installed near disadvantaged communities. And the order requires 20% of the stations and over \$100 million to be allocated to stations in or around disadvantaged communities. The order has a number of concrete and very substantial outcomes associated with it. Specifically, the program aims to enable deployment of more than 50,000 level two charging plugs and 1,500 public direct, fast charging stations.

To give you a sense of the relative size of this investment, at the beginning of 2020, there were about 3,000 public level two plugs in the state and 500 fast chargers. So, the order puts in place support to enable a 15-fold increase in chargers in the state. Additionally, the program is expected to stimulate \$1.5 billion in new investment and provide \$2.6 billion in consumer benefits over the next decade.

In addition to the "make ready" work, the order creates a fleet assessment and implementation service to aid fleet owners in identifying opportunities for fleet electrification and savings. Additionally, the order funds a pilot "make ready" program for medium and heavy duty electric vehicles. Additionally, "make ready" for transit authorities is also being funded specifically for the five upstate transit agencies that have committed to go fully electric. Lastly, alongside these funding mechanisms, the order also funds three new prizes.

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The prizes as part of the make ready order, have a total budget of \$85 million. Their goal is to make truly tangible impacts to disadvantaged communities in the electrification of transportation. I chose this image here because it depicts a road that has had car right-of-way removed in place of eBikes and pedestrians and shared electric transit that depicts no emissions-creating vehicles while creating new spaces for local business and social life to thrive. This is an idealistic view of the kind of transformative change we would like to see from some of the prize awardees.

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As we think through how to optimize the use of the prize funds and how to ensure the funded solutions are successful, we continue to come back to a few simple approaches to how we want to structure the program. First and foremost, is attract the best. We do not just want New York organizations to apply or the usual applicant pool for transport work. Rather we want the people in organizations with the best ideas from different backgrounds, from different sectors to learn about these prizes, be excited about their vision and to apply and make these prizes as successful as possible.

Number two, we believe that for the funded solutions to be successful, the solutions must be deployed alongside the communities in which they will be deployed. Excuse me, developed alongside

the communities in which they will be deployed. This means community engagement must take place from the beginning, and the process of developing a needs assessment must take place between a community and the applicants. Additionally, we want to see concrete measurable benefits from these communities.

Lastly, in a combined, we want to support people in disadvantaged communities and their health and transport related needs through the funding of boundary pushing interventions. We are looking for proposals that can make sizable investments to enable scale change where the awardee work will tee up solutions that have defined off-ramps after the prize funding is spent and where we do not have to take substantial technology risk, but rather are supporting new initial deployments. We recognize there's a trade-off between replicability and the bespoke nature of certain solutions for individual communities. We want to invest in projects that will be bigger than our funds alone permit, either through scaled growth and/or replicability.

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Digging further into the details of each of these prizes, the largest prize for the budget of \$40 million is the Environmental Justice Community Clean Vehicles Transformation Prize. This prize will support integrated projects that remove polluting vehicles and expand access to electric options, emphasize partnerships, measurable improvements to air quality, and large scale actions. From the Order language, an example awardee could look to the electrification of diesel traffic that specifically burdens disadvantaged communities, integrated projects that create green zones by taking polluting vehicles off the road and expanding access to electric transportation options and disadvantaged communities, are of particular interest.

The second prize is the clean transport mobility prize with a \$25 million budget. The prize will enable access to, and delivery of, clean transportation services, including last mile solutions, including all types of electric vehicles. An example solution here could include micro transit, E-Bike shared services, EV van pooling, and other mobility solutions using electric transport. Integrated projects that both take police vehicles off the road and expand electric transportation are of particular interest.

Lastly, the clean medium and heavy duty vehicle innovation prize with a budget of \$20 million, will seek to demonstrate lower cost charging solutions, charging solutions that minimize electric grid impacts and innovative business models that can be replicated to accelerate electric truck and bus adoption. The prize has a strong interest in awarding projects that tackle vehicles domiciled or largely operating in disadvantaged communities. To support prize structuring, we are currently contracting with an entity that has substantial expertise developing 10 to \$100 million prizes to go co-develop this program alongside a team from DPS and NYSERDA.

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And lastly, given the scale of this order and the amount of interest it is generated from media and stakeholders, much of which has been strongly positive. I just wanted to end the discussion on transport with a look at some of these responses that DPS has gotten to its work.

Next slide, please. And then next slide please.

So, moving on to resiliency, and to level set before we get into some of the particulars around NYSERDA's work, I wanted to briefly review where the world stands with respect to climate change. And, Doreen mentioned a number of these aspects in her remarks as well. Its effects are, of course, already here. Fires have burned 4 million acres in California this year, with a single fire that Doreen mentioned, having burned over 1 million acres itself. A few years ago, hurricane Sandy hit New York, which of course you can see in these two images. Climate change impacts are mounting. They are uneven, both occurring from acute events like fires and hurricanes and chronic changes to the climate such as incremental warming and sea level rise.

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To date, global comment negotiations have focused on limiting warming to 1.5 degrees, but even this amount of warming will be devastating compared to the current effects we are seeing. And managing these impacts will come with a price tag estimated around \$50 trillion. And this is a best case scenario most experts agree we won't be able to achieve instead experts predict that it will actually get much worse.

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So much worse that in fact, there is no certainty that adaptation is even possible under certain scenarios. Though, New York state is doing everything it can to make sure that we don't reach those potential outcomes.

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Even with a complete zeroing out of current emissions today, warming is expected to continue for decades, based on the greenhouse gases already in the atmosphere, unless the world moves rapidly, not just to stop new greenhouse gas production, but also to take existing carbon dioxide out of the atmosphere.

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For New York, we expect more flooding on the one hand in the future, as well as more drought, extreme heat, severe storms, and of course, sea level rise.

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The current climate change effects we are seeing are already leading to very real costs and a need to fundamentally rethink infrastructure and built environment design. Massive hailstones in Texas led to a \$70 million plus insurance bill for a solar farm that insurers had not anticipated. And that is helping to drive a retrenchment by some insurers with respect to renewable projects. Similarly, many utilities may have built the right power grid with the right protocols for weather a decade ago, but their infrastructure plans and processes may not prove adequate for the current and future reality. In New York, despite many actions from NYSERDA and the state, some private building and planning continue without a full systemic assessment of future risk. Like other investors, NYSERDA must ask itself if it's funds will create the return on investment that it believes if we factor in future climate risks and the resiliency measures and costs needed to withstand those risks.

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When we speak about resiliency, broadly we're speaking about the capacity for a system or asset to function, survive and thrive in the face of shocks and stresses. With respect to climate change, that principally means resilience to those acute and chronic risks, including natural catastrophes, shifts in weather and patterns, and sea level rise, but it also means all of those follow on repercussions from those risks. As an example, the New York city subway, despite currently being fully operational and not being directly impacted by COVID-19 in any way, has not proven resilient to the COVID-19 pandemic. The follow on repercussions of the pandemic, including the behavioral change of commuters have led to a complete, excuse me, a dramatic change in the use of this system. Planning for resilience requires the development of a framework to assess future expected risks and use this future focused framework as a key driver of our current actions. This is a major shift for many organizations accustomed to looking to the past, to make decisions about the future.

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Much of NYSERDA's work mitigates climate change by reducing sources of greenhouse gases. We fund energy efficiency projects to reduce power use, and therefore carbon dioxide output. We build wind turbines to replace coal and gas power plants. However, historically, we have done less adaptation work, where we address not the cause of climate change, but its effects. NYSERDA does not traditionally build higher seawalls or typically spend funds to harden transformers or future proof buildings from sea level rise, wind or hailstorms, but we know sea level rise and higher intensity storms are coming. So, to use our capital well, we must ensure that projects that we fund for mitigation are resilient to these future climate change impacts.

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To date, New York State has moved forward with a number of resiliency initiatives. The New York State Inter-Agency Climate Adaptation and Resiliency Working Group was formed with 20 New York State agencies and authorities to coordinate state incentives, initiatives, across agencies. The State Department of Homeland Security and Emergency Services has incorporated climate change and resilience into the State Hazard Mitigation Plan. And among the many other initiatives, the Community Risk and Resiliency Act of 2014 and the 2018 Resilient New York Governor's Initiative, required adoption of New York State sea level rise projections by DEC using projections supported by NYSERDA, require storm surge and flooding to be assessed in certain permitting, funding, and regulatory decisions, and have required local resilience plans to be developed. NYSERDA, too, has already begun incorporating resilience into its work. Initiated in 2018, NYSERDA developed initial programs to implement resilience measures across seven programmatic areas. These seven areas have since completed vulnerability assessments and have drafted implementation plans for their respective resiliency measures. As an example of some of this work, the offshore wind team developed a plan to assess which climate adaptation factors, including resiliency, might affect offshore wind. How might those factors evolve over time and the state of the art and industry in terms of solutions to adaptation needs for NYSERDA to consider.

The team's initial findings still preliminary look, not just at the turbines themselves, but across the supply chain and port infrastructure in an integrated manner. Of note from the initial findings is that, since 2010, over much of North America, Europe and Asia global wind speeds have increased, yielding an estimated 17% increase in potential wind energy for the average wind turbine. This is great news for

capacity factor, but also requires deeper analysis of changing, to understand equipment maintenance cycles and cost effectiveness of these changing conditions. The offshore wind team's resiliency work will be incorporated into solicitations and technology choices to ensure the offshore winds projects and programs are resilient to the anticipated changes to the climate during their lifespan. Alongside NYSERDA's work in integrating resilience into its work necessary to also supports resilience research, to provide needed information from the state and stakeholders, for the state and stakeholders.

As an example, NYSERDA developed hazard maps, including future flood zones under various sea level rise scenarios that inform resiliency plans. The scenarios are available in online mapping tools that can help with hazard prioritization, prediction, and thus help scope resiliency responses.

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Nation and economy wide, we must continue the process of incorporating resiliency into our work, knowing that there are no easy answers and many unknowns. And the reality is that we will have to continue to revise these plans as conditions evolve. Additionally, and in this case much like climate mitigation measures, resiliency tends to be a cost which can slow its integration. Again, to use COVID as an example, however, a system ready for pandemics is not cheaper than one that is not, until of course a pandemic hits. Also, like mitigation, a more holistic assessment and strategic action plan can produce greater benefits and lower overall system costs. This suggests an important additional focus for NYSERDA, that of supporting the development of a flexible economy and flexible energy infrastructure. We may not know what is coming, but we know it will be difficult to predict.

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To ensure that this important work moves forward in a timely manner, NYSERDA has brought on Anna Brown to lead it's resiliency work. Anna's background includes 10 years at the Rockefeller foundation managing the Asian Cities Climate Change Resiliency network, a nine-year, \$59 million multicountry initiative among other work. Previous to that, Anna led nature-based solutions for Climate Adaptation and Resiliency for North America For the Nature Conservancy. She received her undergraduate degree in environmental studies from Brown, and a Master's in City Planning from MIT.

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With Anna on board, our next steps will be to develop an Authority-wide plan for integrating resilience into NYSERDA's future in a uniform manner. This process will start with an assessment of all work to date and the development of a strategy and plan for NYSERDA's integration into its work and NYSERDA's role in statewide resilience efforts. We expect this plan to be presented to the Board in January, if not before and in the meantime would welcome the opportunity to coordinate with interested members of the Board. And thank you all. And I believe I just hit my 20-minute mark. So, I'll pause for questions and comments. Thank you.

Richard Kauffman (00:51:45):

Thank you, John. Jay, you must have some comments.

Jay Koh:

Yes. I'm surprised I do have some comments. First of all, I thank you very much for the presentation it is very thorough. I really appreciate the update on the transport side of things and

absolutely applaud the effort to really have a strong focus on the resiliency aspects of it. I guess one comment, one question that, the comment is I think NYSERDA is incredibly well positioned because of its understanding of the data and research environment and particularly because of the position of New York State as a financial center to really drive a lot of the groundwork here at, and actually setting standards and providing basic information and convening folks around the resiliency issue. So, I really am very excited about that. And the question that I have is, resiliency being framed potentially not just as a cost or a risk to be addressed, but if there's been thinking about the potential for the drive for resiliency and adaptation to climate change as being a source of competitive advantage for New York State, a source of employment, a source of revenue, and a source of new initiatives on the equity side, especially as we come out of the COVID environment, right? I mean, it's not just about building seawalls and adding costs to things it's also about innovating for the new environment that we're all going to be facing. If we have a head start on that, or if we can develop the skill set, or the employee population to do that then I think that there's substantial upside that we can capture here and demonstrate for the rest of the country. So just wondering if there's been a thought process around the opportunity side of the resilience and adaptation question, particularly in the light of the equity considerations you've already discussed and the COVID response.

John Lochner:

Sure. And thank you very much. Yeah, there absolutely is. And I did not mean by, by, by mentioning the fact that it perhaps it's looked at as a cost by many that, that, that was the way we were going to look at it and that's the way it should be viewed. I think it's more of a, a challenge that we face when we approached the subject with, with a number of stakeholders. But yeah, from my perspective, and we're working with Department of Financial Services on some of this work as well, and related topics, and there's clear opportunity and competitive advantage in getting this right. And I would agree with you. We have a, we have an opportunity with the finance and insurance sector in the state where the Department of Financial Services, with NYSERDA's ability to convene, to really lead on messaging and on implementation here.

Jay Koh:

That's great. Thank you. But that's a subject of focus as well. I think there is a, an opportunity that we can meet here and take advantage of.

Sherburne Abbott (00:54:42):

So, I have, John, this is all great. One of just building a little bit on Jay's... one thing that you could do, is to broaden your definition of resilience along the lines of where the IPCC has been going more particularly, which is to shift from, you know, recovery, thinking about recovering from, from disaster to anticipating and improving. And, and so if you, if you build that into your definition, then the financial services pieces are much more self-evident. And, and it's more forward looking rather than just responsive. I can give you some, some background, the SREC's report was really instrumental in moving things in this direction. And so there, there's, there's a broader definition of resilience that could be really helpful in achieving what Jay is suggesting. I have a quick question about Anna's role. So is Anna coming on as an employee or from her consulting firm?

John Lochner (<u>00:55:49</u>):

She's coming on from her consulting firm.

Shere Abbott (00:55:54):

Okay, cause it, cause there's actually something kind of useful there too, which is to build the portfolio of people who are working in this consulting world. I mean, it would be, it's a, it's an advantage, that's an advantage. I have one final question, one, it's more of a comment rather than a question on the prizes. You know, when, when the group of folks that, when I was in the Obama White House, were really focused on this prize stuff. There are some people who would be really helpful to engage here, like Tom Kahleel and Kumar G- [Gargh?], who, who were sort of the prize guys within the White House there. And one of the things that they did, which I thought was really impressive was to make sure that the prize definitions were, were targeted specifically to their goals.

So, one example for you on the, the Order would be since there was one of the goals is to improve, you know, upscale up a number of charging stations in, in lower income communities. One of the prizes could be focused on how do we, how do you actually, you know, get more EVs into those communities. You know, so, so what they did was targeted their prize you know, wording to assure that there was a direct, a direct connection that they could make later on between the prize and the goals.

John Lochner (<u>00:57:27</u>):

I appreciate that. I'm in touch with Tom Coolio and he's very -

Sherburne Abbott (00:57:32):

Tom is your guy.

John Lochner:

Yes, he definitely is.

Sherburne Abbott:

Okay. Okay, great. That's great.

John Lochner (00:57:38):

Yeah, I appreciate it.

Richard Kauffman:

So, John, John, I've got a question about the prizes. And I think one question is just maybe for a future Board meeting, generally, I'd like to have a presentation about NYSERDA's approaches to prizes. And maybe we can look at some of the, some of the approaches that you use for prizes and what we, how we evaluate their success. So that's a general thing for the future, but with respect to these prizes these are, these are large numbers. So... how much of these prizes to.. how much of the project's really about dollars going towards deployment and how much of the, how much of it is more that the dollars are going to be, it's really a depth versus breadth question. How much is it? Are these projects, which are more at the, you know, at one extreme it's it's, the, the money is concentrated into something that's really going to build, build something at the other end of the stream it's, it's money is spent on a bunch of, of, of feasibility studies. So where, how do you, how do you both are valuable? So how, how, how do you think about that?

John Lochner

So we're, we're definitely still in the process of thinking through, but very much more on the former, where as much of the money as possible would go into actually building something versus developing feasibility studies. We, we do want to provide funding to develop plans that are larger than what our, our money can actually afford to, to be able to create the opportunity to bring in other dollars

and to coordinate the bringing in of other dollars. But, but so far we've been working with the idea that we'd really like most of our capital to, to be used to actually build whatever, whatever it happens to be, whether it's EV charging infrastructure or software to manage congestion or other actual hardware and software.

John Rhodes (<u>01:00:05</u>):

Let me, this is John Rhodes. May I offer a friendly amendment to that?

John Lochner:

Please.

John Rhodes:

So I think the answer is both I think mainly because one or the other is so profoundly on satisfactory the series, the feasibility studies that don't deliver benefits does not eat anybody tested impact, and a series of implementations that are, have a good chance of being one of a kind as opposed to first of a kind, are, are not what the system needs. And I'll, I'll go on record that in the discussions of the magnitude of the prizes, which is, you notice as, you know Richard, is a meaningful number they, those numbers were picked in a judgment that we could achieve both with those amounts of money.

Richard Kauffman (01:01:11):

Great. Thank you, John.

Gil Quiniones:

Richard, it's Gil, just a couple of comments, John, you know, you have at least three agencies and, and this call right now, PSC and DOT, and NYPA living and thinking about resiliency every day. So let's, let's continue to collaborate as you've developed, the NYSERDA's resiliency plans. And number one, number two, I do want to commend the teams from NYSERDA at DPS and night by working on the other stakeholders, working on the make ready framework. And even before that, the rate design that what's needed to really spur the electric transportation space in, in New York. So thank you.

Basil Seggos:

Yeah, absolutely. I mean, to reiterate what Gil said, we've been, we've been living a really for the last eight years since Superstorm Sandy, Irene and Lee, except that of building back stronger, smarter. And some of that is downstate with the rebuild, the federal dollars that went into the downstate. So where did we get hit and what do we need to build to, to protect against future impacts and the same thing of Lake Ontario with Gail and others you know, rebuilding all the shoreline there, lots of little communities in between. So there's, there is a, an enormous amount of work and by John and and the team to, to tap into what we've been doing thus far and maybe help to coordinate it all, bring it all together into, into one spot. It's exciting. It's I think we have a real opportunity and I'd point you back to the 2100 commission report that we did back in 2013. I think it was that set up, set out, you know, 200 priorities or, or whatnot for the state that we've been chipping away at. And that we may need to look back at that with the sustainability and resilience teams, just to see where are we on that spectrum? The governor sent it out, we did hearings on it. We did lots of meetings and it might be a chance to, to, to get a level set on our progress also.

John Lochner (01:03:45):

Great. I look forward to being in touch with a few more on this topic.

Basil Seggos (01:03:51):

Great.

Kate Fish:

Go ahead.

Marie Therese Dominguez:

I'm sorry. I think I have a really bad connection. Just you know, John, I think that was a great presentation. You work clearly bringing a, a note here on resiliency that is that is a longstanding, and I think and it's reflected in the questions that you're getting. I just want to pick up on, on what Basil and, and Gil Quinones were, were noting as well as John. I think as we move forward, one of the things that we're tasked with internally is that larger definition of resiliency for the state. And I think that NYSERDA is very well poised to help, to help define that. But we, as, as Basil was noting, there's some, there's some key foundation elements there that we can, we can look to, not to say that what you outlined isn't, isn't great and very broad and very necessary. But I think we need to just make sure that we dot I's and cross T's and literally link things up as we move forward. So, we've got a lot of wonderful things occurring simultaneously and coordination key on that. So thank you very much. And thank you to everybody who worked on this.

John Lochner (<u>01:05:21</u>):

Yeah, thank you very much. And I would reiterate I am that certainly is a theme, I think at NYSERDA right now, or at least in the innovation sector in particular, is, is linking everything that we're doing to what's going on with the rest of the state. It's, it's the only way to actually execute, I think, against all of our priorities. So we, we very much look forward to that. And I I'd also add that. And I look forward to all of you getting to know Anna, but Anna very much has an approach of thinking about the broader definition of resiliency and the broader opportunities. So I think there's going to be a, she would be very happy to be hearing these comments, I think, and very excited to, I think, be on the same page as, as the Board members,

Kate Fish (01:06:06):

John, this is Kate. Just one more kind of comment slash question. I'm really excited about NYSERDA tackling the resiliency issue. It's critical to all of our communities. I wonder if scenario planning or scenario thinking kind of ties into this and I'm raising that just because there are so many kind of unintended outcomes from the COVID you know, pandemic, for example, and I'll give you one specific example, a ton of, you know, a lot of people ended up scooting out of the city, buying second homes, you know, et cetera. There's a tremendous pressure now in many of our communities on affordable, you know, access to affordable housing, which then puts pressure on, you know, the workforce and et cetera. So, I just wonder if kind of that scenario thinking that considers a lot of unintended consequences from, you know, things that happen is, is part of the resilience planning effort.

John Lochner (<u>01:07:30</u>):

It certainly is,[inaudible] Kind of constant redevelopment of scenarios. It needs to take place and an assessment of what it looks like to reach those scenarios. So that, that's definitely envisioned as part of this work.

Richard Kauffman (01:07:51):

Any, any other questions?

Charles Bell:

I just wanted to comment that the needs in the ar-, in the area of resilience seems so enormous to me. And you know, our state has really stepped up to respond to the COVID-19 pandemic and done an excellent job in my opinion of looking out for the public health and welfare of New Yorkers. But gosh, I certainly hope that the federal government is going to be a partner in co-investing and their resilience strategies, and systems that we're going to need. I know at the federal level, there's a proposal for a national infrastructure bank, and I feel like you could almost make a case for a national resilience infrastructure bank. And so, I think it's terrific that NYSERDA is looking ahead and blacking out the needs and trying to achieve the sort of governmental coordination that we need in New York to address these issues. But we also need that partnership with the federal government. And I think it's important to also recognize and call for that.

John Lochner (01:09:02):

Thank you. Yes. I, I would agree. I, I guess put bluntly, obviously the more coordination and the more capital that we can that we can have the better. So, certainly with respect to what's going on with the federal government and what opportunities there may be in the future, and how New York can, can lead in terms of that coordination, It's certainly on our minds. Thank you so much.

Charles Bell:

Yeah. Whatever the shortfall is, I'm all for us, helping them call it out. Thank you.

Basil Seggos:

Yep. I posted the link to the 2100 commission report in the chat box there.

Doreen Harris (01:09:40):

Yeah. Thank you. We're remembering, I think it was Jason Doling on our side who had worked on that, Basil. And I would say that the example of the Offshore Wind Team, team is a good one, Chuck, to your question, or to your point you know, what better infrastructure can one think of then example of infrastructure then, then that type of generation source. And, you know, I think it should be noted the fact that the scope of that work is intended to capture the entire supply chain, as well as John mentioned that, you know, it is a good example of our buying power and the volume of our commitments is really driving, you know, market decisions in that instance, which is really what we seek. So, the fed, the federal side is an important one. I don't disagree, but, but it is the kind of situation where, you know, we have a lot of ground we can make up on, from a state perspective as well.

Doreen Harris:

Just checking here I seem, Oh, there you are. Richard, can you try to speak one more time?

Richard Kauffman (01:11:02):

Yeah, I was saying the offshore wind example also said the benefit created the benefit of our demonstrates shouldn't me the benefit of a friendly competition amongst other States to create an even larger economic prize. And presumably that's the same thing that you're thinking about when it comes to some of the other initiatives?

Doreen Harris:

Definitely.

Richard Kauffman:

Okay. I, in the interest of time, unless there's another pressing comment, I'd like to move on to the next item on the agenda. Thank you. Thank you very much, John. And excellent, excellent report. Thank you. Now you're going to have to top John cause the next item is a report on the New York Green Bank from its President, Alfred Griffin.

Alfred Griffin (01:11:51):

Thank you, Mr. Chairman. Good, good afternoon to the Board and to all the attendees. And I know it'll be tough, tough to top John and top John that's was, really exciting initiatives. But it's a pleasure to brief the Board. The briefing thing will be based upon our public financials through June 30th.

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So top left, we surpassed a really big milestone in the second quarter, which was, would be passed the milestone of having invested a billion dollars since inception. We were just an idea and, and Governor Cuomo his state of the state in January of 2013, the Public Services Commission authorized our establishment. In December of 2013, we put together our plans built, built out a team, positioned ourselves in the market, and for the last five years have been investing about \$200 million a year. So, this was a really exciting moment for the team as of June, where at \$1,338 million of total capital invested and the quarter we invested \$78 million. So, we had a good quarter. We've generated cumulative revenues of \$93 million. Our investment thus far as expense has mobilized in total about \$2.2 billion in project cost. And we are having a big impact on reduction of greenhouse gas emissions.

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So, this plots out our progress since we started deploying capital. And, and as you say, the, the steady climb towards a billion. The blue line is what we currently have as investments as of today, our current portfolio, the reason, 635 is less than the billion is because we have recycled a good bit of our capital where our private sector parties have come in and refinanced us, and we've been able to recycle our capital and that's, you know, part of the concept and the power of, of New York Green Bank, recycling our capital crowding and private capital getting more done, always operating on the next frontier. The 490 is how much we currently have funded against the 635 and current and our current portfolio. So, you can think of that in terms of the Delta being, if there's a financing that has a delayed draw related to construction, there can be a difference there. If there are financings related to aggregation facilities where, you know, we're supporting the aggregation of assets, there can be a difference between the, the total investment and deployed funds, but it's been a steady climb.

You know, you can see in 2018 after a climb sort of a steady state period, we were at, we were deploying funds then, but we actually had a, had a good number of refinancings as private capital was, was pouring into certain sectors. But I think it's a great, great chart and, and you can see all the activity in the second quarter that could add us to the team for operating in a very seamless fashion. When we had to start working remotely, we've been as busy as ever. The team has been as dedicated as ever. And thank you to the NYSERDA team for having us so well prepared with technology, et cetera, to hit the ground running without a stutter at all.

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So, this shows our cumulative revenues and expenses. So, on a cumulative basis, we're at \$93 million. Oh, for revenues on an expect from an expense standpoint, \$49 million, you can say that on a cumulative basis that in the second quarter of 2017, we became net positive. And so, we, we enjoy seeing that Delta to continue to grow.

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This breaks it out on a quarterly basis. So, as you can see here that going back to the, the second quarter of 2016 as our portfolio became substantial enough, we started generating revenues in excess of our expenses. And, I'm pleased to say that we've not had a quarter since that our revenues have not been in excess of our expenses. And we expect that to continue into the future, with rates being down as much as they are. And given the fact, we do have some floating rate transactions. There is some compression on our yields, but we don't expect that to impact a table like this. And, and in our projections and our business plan that we've published in June, it reflects those new assumptions.

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This chart shows what our impact is in terms of greenhouse gas productions. It follows the deployment of capital. We, we put a lot of time and effort into for every transaction, estimating what the expected greenhouse gas reduction will be. Some transactions are more straightforward than others. If we're providing capital that's funding developers and energy services, companies that are out out, aggregating and deploying into distributed market, and they're not perfect certainty as to how much they'll get done. We have to have a high and low that's why you see the difference there, but between 11, 11 million metric tons and 19 million metric tons, there's a low and a high, we are pleased and pleased with that statistic.

Next page, please.

This table shows our, our progress towards targets, as we think about clean energy fund. On the left hand side, we are 45% of the way through our Clean Energy Fund time period from a invested capital, we had assumed in the CEF that we would actually put \$1.9 million to work over a 10 year period. Now we of course have a billion dollars of capital. So that does assume refinancing. So, we are tracking very well there, in terms of total project value, how we've mobilized our capital. We're tracking a little under there, largely driven by the fact that the New York market since we've been in existence has been largely a distributed market with, with smaller transaction sizes. So, we have been a meaningful share of those transaction sizes in terms of helping to demonstrate and scale up prior to being refinanced. We do think we'll catch up as the large scale renewables out there just to get permitted and start getting built there's off shore wind comes on board, larger storage projects will all enable us to put a smaller ship capital in and, and create a little more balance. And these thermometers on that, on that point. And then again, the right hand side shows greenhouse gas emissions reductions and how we are tracking there and pre pretty, pretty much on target with, with how far along we are and the term of the CEF.

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So, in terms of our pipeline of proposals and approvals, so this is more of a forward-looking measure. We've, we have the transactions we've closed, and then, you know, we always have to think, you know, what are we going to do next quarter? And what are we going to do to next year? You know,

we, we continue to have a great deal of activity in terms of conversations with, with market participants that are interested in getting things done and the New York market that, that turned into formal proposals that turn into proposals that generally made our investment criteria, which is our scoring process. And then as we get more deeply involved, better understand the transaction, have general agreement in terms of terms and so forth and take that to a Greenlight committee prior to, prior to entering into documentation and doing, you know, you know, the most thorough set of due diligence to final, final approvals. We continue to see, to see these a lot of activity in this regard as is demonstrated by this, this table. And, and, and that is, you know, I, I think of the Green Bank as being a little bit our activity, a bit of a laggard to great policy and regulatory frameworks in the state. And so thank you to NYSERDA for the programs to the, to the Board for supporting the various programs to our various partner agencies, for helping to develop great policy that sitting the target, the stimulating activity that creates new business models for us to do finance because that's, that puts us in a great, a great market to be a participant in.

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This is another snapshot in terms of our pipeline, you know, our pipeline right now is, is probably the biggest it's ever been in terms of active pipeline. We think of active pipeline in terms of being those transactions, where we have general agreement in business terms and continued momentum towards closing. You know, we typically say that around the \$500 million level is close to a billion right now. You know, once again, that is, I think evidence of all the great activity in the state of New York and, and, and the need for New York Green Bank to support that activity.

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This shows where we are looking at that table June 30th this year, versus last year good jumps in both categories and as mentioned, the active pipeline transactions that are moving forward is, is close to double. So, a great place for us to be.

Next page, please.

In terms of the distribution of pipeline, we you know, clearly the you know, the solar space continues to be super active, but we, we, we do have a good bid and energy efficiency, energy storage, but of, from a geography standpoint, good distribution there in terms of end user customer segments, whether it's residential customers or [inaudible] or commercial industrial, we say we see some distribution there with, with, with community solar and residential and, and commercial and industrial being, being large parts, segments.

Next page, please.

So I'll just touch on a couple of items here, and then there's some follow-up items as well, but we won't have time to get into, but happy to take offline with anyone that has, you know, questions, we, we, and business plan each year, we do set out a set of milestones that we expect to meet. Those are here and in the following pages. And, and we measure ourselves against those. A couple I want to touch on here. One is COVID-19 recovery and the other is LMI initiatives. From a COVID-19 standpoint, you know, we, we immediately took a look at, and, you know, not only how does COVID potentially affect our portfolio and are really hard to look name by name in that regard. And I'm pleased to say that, that we are in very good shape. In that regard we also looked at what, what role can we best play given

the impacts of COVID. And number one, we felt like sort of the most critical role we could play in support of, of this marketplace is to continue to be a committed, focused capital provider in this market. You know, certain financial institutions that do all sorts of things when COVID happened, and they had stress in all different parts of their portfolio and organizations, they refocused and allocated resources to other areas. We do one thing, we support clean energy and sustainable infrastructure in the state of New York and providing those signals that we stand ready to continue to negotiate terms, to continue to provide commitments to con-, continue to support these projects. In fact, enables other capital providers to be willing to commit capital and move transactions forward. So that's, you know, that's the first thing we did was send a clear signal on that regard.

We also felt that we should be a prudent, but, but reasonable and flexible partner with our counterparties, where there were reasonable outcomes in terms of, of COVID impacts like construction delays because you couldn't build, or supply delays because of supply chain disruptions, that we were very reasonable counterparty and extend construction timelines and so forth where it made sense. And we've done that, you know, we also wanted to, to step forward and, and, and help provide liquidity where we could, we've, we've done that with interconnection bridge loans and such. And then we also have become, have become a SBA lender, approved lender under the PPP program. We, it took a long time to get through that program, but we have, we have done that. We actually provided a few loans under the PPP program and we stand ready if they're new stimulus packages that create more activities, stand ready to support New York actors in that regard.

And then briefly on the LMI front briefly for this conversation, it's not brief in terms of the attention we're paying to it. We, we have put a great deal of time over the last six months into really thinking through environmental justice, how we can best play a role, talking to various agencies, developers, owners, CFOs, et cetera. We've made one announcement about commitment to \$150 million in affordable housing. And there will be more announcements to come, a scenario we're really excited about. We think there's actually some great opportunity and can, we can be super impactful. So, we'll look forward in the coming months to share any more in that regard. So that's, that's it. Happy to answer any, any questions Mr. Chair.

Richard Kauffman (01:26:37):

That was great Alfred. Thank you. So questions or comments for Alfred?

Charles Bell:

Well are some you know, very severe impacts that are coming about to New York State because of the COVID-19 pandemic. And, you know, we're a very service focused economy here in New York, and also we can see the commercial real estate and retail sectors are really struggling in this moment. So, I just wondered how you're thinking about the current conditions and whether you see any silver linings or opportunities to kind of build it back better with clean energy for, for, for those things.

Alfred Griffin (<u>01:27:21</u>):

Thank you. Chuck, the, I think some, a couple of silver linings that we've observed is on the residential, as an example to intermediaries, whether they're energy efficiency providers or rooftop solar providers or CDG providers, a silver lining is that because people are spending more time at home and they are not as distracted by other activities, it's having two impacts. One is they are observing elements of their home that could be improved. And the other is they actually have time to talk about, and actually engage with and make decisions around getting work done, versus always putting it off. So we've had a number of intermediaries that have, that have said their customer acquisition has actually

been really strong and in some ways improved. On the commercial front, I think there's been a laggard from what we're hearing from our intermediaries that are active in that space, but there seems to be a big picking up in that regard now. And in terms of conversations and getting into the commercial spaces and talking to owners about what can be done, and there may be a silver lining there as well with less density, an opportune time to actually get in, get things, get things done with disruption of the workforce.

Charles Bell (<u>01:28:46</u>):

Excellent. Thank you.

Mark Willis:

Alfred, it's Mark. I heard you said that you're going to talk more of the future of the LMI. I'm just wondering whether you can characterize a little bit more about the kinds of things you're thinking about or who are the partners, private sector, government, whatever, just so I understand a preliminary level, but yeah.

Alfred Griffin (01:29:12):

Well, so, you know, as, as we all know, there's a commitment for, you know, 35 to 40% of dollars under sales speak CPA to go to environmental justice communities. And we are we, we view that as, as being directed towards New York Green Bank as well as, as others and, you know, w-, we're focused on ways to deliver against that. We, we, we hired a consultant, worked with consultant, went through, I went through a process interviewing a number of potential consultants, hired a, a consultant enterprise. So you're probably familiar with, they worked with us through the spring and into the summer, in terms of looking at sort of every possible way we can be engaged in this market and then refining that to, to, to where we can have the most impact and actually have some scale and get things done and, and have an additional role.

We, we can, we were having conversations with the various state and city housing authorities and partnerships there, and some really exciting developments on that front. I don't think we're quite ready to say exactly what, but we think we're making some good progress. And, and CFIs, and, and, and the such. So, I there will be, there's a lot of time being spent on, on, on the strategy front with our NYSERDA colleagues, with our DPS colleagues and so forth. And we will, we will look forward to sharing, sharing more detail as we have our final conclusions and, and roadmap.

Mark Willis (01:30:50):

Okay, sir. Thank you. I know you're not in the Brand making business, as, as far as I was interested in how you might be thinking about bringing capital that animates markets and all the other things that you try and give us as a forward to hearing more.

Alfred Griffin (<u>01:31:09</u>):

Thank you, Mark.

Ken Daly (<u>01:31:13</u>):

They offered it's a, can, you know, quite a few impressive milestones there with the, a billion dollar of commitments and almost a hundred million dollars of revenue and some pretty big emissions reduction numbers, I guess, just looking back now, you know, last few years under your leadership, what would you say has gone, you know, pleasantly surprising compared to what you would have considered a few years ago was successful. And then the flip side, you know, absent COVID, what have been

somebody other challenges that perhaps have been harder than you would have originally forecast and how do we help you get through those challenges?

Alfred Griffin (01:31:46):

Good, good questions. I think I was, I was when when when starting, I always had a you know yeah, obviously we wouldn't have done this and I wouldn't have left city to join the effort, unless I believe that, that the concept being put forth there was a real need for, and, and that we would be able to play a meaningful role and put capital to work. But you know, at the same time, you still worry that, you know, it may be crickets, so that if you build it, you know, that, and you engage that maybe the opportunities don't come. And that, that certainly has, has always been a concern. And frankly, even, even after a banner year, III, I, you know, it, it, it worries me. It's got really concerned about how we got to we got to keep finding ways to put capital to work in a smart way. And, and when we have a dip dip back in to share, you are our key constituents, like DPS, the public services commission, they you know, they, they want it, you know, they want it, they want us, they want to see us having an impact and having an impact consistently. So, so I'm really pleased to say that we have a great pipeline. I'm always worried about it, but it's there. And and, and I've been in this business, whether here or at city long enough to know that a lot of things in pipeline can fall away. So I always worry about that too, but I think we've built enough of a track record now, and we're established enough now to demonstrate that, that, you know, when we have a pipeline of this kind of scale, that they, they they're, there will be meaningful transactions that fall out of that.

So but that certainly, you know, looking back was a concern and is always in the back of my mind, I guess, you know, things that I didn't expect to, to be an, an issue that have been an issue, I'd say I'd say one is that you know, having come from the structured finance business, I knew that even if you have a great pipeline, it takes time to, for these transactions, but because there are a lot of complicated pieces to mature to the point into, the point that you can close into them. And in our early days, I did feel feel a lot of, a lot of pressure in terms of why haven't you closed transactions yet. And, and is there a problem? We at the Green Bank knew there was no problem because we, we had a great pipeline working towards closing, and then externally, people couldn't necessarily, didn't necessarily understand that.

So, so in people thinking about other green banks, whether in the US or internationally asked me about lessons learned, I, you know, I said, one of the, you know, one of the lessons learned, and one of the things I would encourage you to do is to make sure that all your constituents understand that when you have the capital, it doesn't mean you're going to deploy it the next month or the next year. I mean, it takes time and, you know, we're not buying treasury, treasury bills off the open market, you know, we're, we're getting involved in new, innovative transaction type. So, so that, that was something I should have anticipated, but didn't anticipate as well as I should have, but sort of became a monkey on our back for a while, but that's been offered back for five years now, which is great.

And, and then I think the other difficult piece that is that that's, that's, you know, a bit frustrating and, and, and disappointing that we can't get more done. And I know this is a disappointment that a lot of people on the board and certainly our colleagues and I started to understand that people were working on is we certainly would have expected to get a lot more invested in energy efficiency than we have. We've put a lot of time and effort against it. And, you know, we continue to be frustrated that even where you have credible parties working with building owners with compelling economic value that there and the cap-, and we stand ready with the capital, it seems to get building owners to go from, you know, this sounds really interesting and I like the term sheet to let's

start the work tomorrow is a big, is a big stretch. So, we continue to be frustrated more than I expected to be when we started with the lack of activity in energy efficiency. But obviously there are a lot of, you know, a lot of great, great people and resources focused on how to further stimulate that market. And we stand ready to finance it as that activity is kicked off.

Ken Daly (<u>01:36:07</u>):

Great. Thank you. And I was really delighted to see that energy efficiency is still at the top of the list, you know, for NYSERDA and for the green bank as we go forward.

Alfred Griffin (01:36:16):

Yeah, absolutely. Great. Thanks.

Richard Kauffman (01:36:19):

Hey, Alfred just you, you know, I understand as a former banker in city, you're always worried about your pipeline. And I just wanna, I just want to be sure though that as a, as an instrument of government, that you're, that you're not taking incremental risk, too much risk, maybe you can talk about whether you're, whether how much the, your risk appetite has changed. And the other point is maybe you can talk also about the loss experience that you've had.

Alfred Griffin (01:37:06):

Yeah, Sure. So yeah, from a, from a risk standpoint, I think if, if we go back and look, we internally risk rate every transaction to, to, to represent what we expect the transaction would be rated, if it were in fact rated by the rating agencies, you know, we, we apply the methodologies, the rating agencies apply to every transaction and it its a newer model like community solar, where they haven't prepa-, prepared rating's criteria, we, we, we use, we use the elements of the underlying risk and what's out there to triangulate into how we expect the rating agencies to think about these transactions when they are scaled up enough to rate, which probably isn't too far away. And in terms of our, the, the span in terms of the types of risk ratings in our portfolio you know, we've, we've, we've always had, you know, transactions that we've, when we've closed them that have either been risk rated, you know, single A with the majority and the, and the double B, triple B area, and our weighted average risk rating has consistently and continues to be, and the, and the double triple Bay area that kind of depends on whatever transaction closed last, whether our weighted average risk ratings, triple B minus or double B plus, or double B.

So, Richard, I think the good, the good news is, is that there is more activity in the state today then thanks to all the great policy and the great work being done by NYSERDA and those on the Board. There's more activity in the state today than there than there was three or four years ago. And I, I, I don't feel that we're having to dip in and reach out and do like super risky stuff and screw the cat, excuse me, the kind of things we're doing in order to have the pipeline we have, the pipeline we have is really representative of you know, fact, the Green Bank on the back, us being smart, active players that have created a good brand in the market and interactive and dialogues, but, but you know, it really, you know, it's really driven in large part or even more so by great, great policy, great private sector, intermediaries, understanding that policy and finding ways to, to, to build assets. From a cumulative law standpoint, Jeff correct me if I'm wrong, but I think, I think we're at that, you know, \$1.4 million on a cumulative basis against you know, the, the billion dollars that we've invested. So we you know, we, we feel we're very, very good spot there it's just basis points on a, on a cumulative basis of, in terms of losses.

Richard Kauffman (01:39:54):

And those losses were in the expenses that you showed where you, where your revenues are well in excess of your expenses.

Alfred Griffin (<u>01:40:02</u>):

Yes. Yeah. That, that includes the, yeah. Th, th, th, th, that's yeah, that's factored in. Yes. That, that 1.4.

Richard Kauffman (01:40:11):

Great. Thank you. All right. Any other, any other questions? Very good. Well offered. I'm not going to say whose presentation was better cause of all my children, but I think that it was an excellent presentation. So, thank you very, very much. That was all right. So the next item is a report on the, I'm sorry, the next I'm sorry, The last item on the discussion agenda is a report on the Authority's development of a Strategic Plan, Janet Joseph, Senior Vice President for Strategy and Market Development. Janet, will you present this item?

Janet Joseph:

Yes. Thank you. If you could move on to the next few slides.

Next slide please.

Okay, great. So, thank you and good afternoon, everyone. So, I'm going to pick up on a few of Doreen's remarks in the opening of the discussion today. And I will highlight in the few minutes that we have, the strategic focus areas that we will be outlining in this year's Strategic Outlook, and presenting to the Board in January. And before I jump into the individual focus areas, just kind of a general comment, we're taking a, a bit of a different approach this year to these, these deep dives in, in a few previous Strategic Outlooks, we have focused on more narrow technology areas, and you will see in this year, we, we are not focusing on a narrow technology area, but we do indeed have a number of cross cutting issues that are top of mind for our agenda, and really requires a shift in the way we approach our work. So just some general context setting on these so-called deep dives.

So, if we can move to the next slide, please.

So, I want to start first with the focus area of fostering a healthy communities. And what this means is that we will be putting people in the center of our work. We often view buildings as concrete and steel as things that exist in spreadsheets, sometimes in capital plans. But what we really have to do to drive progress in, in our work is to acknowledge that our buildings are where people live, they're where they work, they raise their families, they build communities, and we have to leverage that basic element of wellness in our work, in how we design our programs to really drive progress. And that's what we're getting at when we talk about fostering healthy communities. So, it's empowering and supporting communities to build a healthy environment. So, this deep dive we'll spotlight work around our community-oriented work focused on sustainability, and also focused on improving indoor environmental quality an issue that, that looms, certainly looms large in our COVID world.

So, we will be some of the initiatives around our new clean energy or, or revitalized clean energy communities program. So that's supporting local governments, helping them achieve their sustainability goals. We'll be looking at ways to better incorporate sustainability considerations in community development plans. We'll be looking at citing renewable energy, and how we can build community

benefits in, into that work. And we will be looking to build local capacity, ground level capacity to drive our, our clean energy agenda. And, and importantly, you know, in this era of, of COVID-19, we will be looking at strategies around our building systems, our heating and cooling systems to better understand how those strategies can increase the overall health of the indoor environment. In particular, looking at places like schools and institutional buildings, this is a very significant issue for many of our partners and one that we are dying, we'll be diving into quite, quite intensely.

So, focusing on healthy communities, putting people in the center of our work and that leads to the next strategic focus area on the next slide, which is about building an inclusive, clean energy economy. So if we keep with this theme for a moment of putting people in the center of what we do, it is readily apparent that there are segments of our society and, and of our population that have historically been disadvantaged by the manner in which the energy system has been built. And they have not yet had access to the benefits associated with this clean energy transformation that we're in. So, certainly the Climate Leadership and Community Protection Act has shined a light on the need to, to increase our focus on disadvantaged communities. And that is indeed what we are committed to do as we, as we look forward.

So, it is certainly the right thing to do from a public policy perspective. And we know have a legal requirement to ensure that a minimum of 35% of the benefits of our spending is directed at disadvantaged communities. So, so this deep dive will outline our vision for integrating climate justice directly into our programs, into our design, into our implementation and into our stakeholder engagement. And I will just underscore that this will take intentionality. You know, we will not be able to make this shift in our program without a very focused effort around, better serving this population. A point I'd like to raise here, as this is a very cross cutting social issue, we will be focusing on the equity issues that can most directly be addressed by our clean energy programs. And we've outlined those here in this slide. So certainly it includes issues around energy affordability, but importantly issues around economic opportunity and clean energy jobs for priority populations, issues around reducing pollution from fossil fuel combustion for environmental justice purposes, and really building that local capacity enhancing community level engagement across New York state and in particular with disadvantaged communities.

And, and also to kind of make the connection back to Doreen's opening remarks, this work in trying to increase our, the benefits that we deliver to disadvantaged communities, trying to build an inclusive, clean energy economy is very related to NYSERDA's internal diversity and inclusion work. The two need to work hand in hand to really have the biggest impact in the overall work that we do at NYSERDA. So, a very important area for us as, as we move forward. If you could move on to the next slide and again, here, I'm gonna pick up on another theme of kind of keeping people in the center of, of what we do.

One of the most significant things that we can stimulate with our work is around the development of clean energy jobs. We need to make the clean, our clean energy work part of this overall economic recovery. So, it's really shined a light on the need to grow the clean energy workforce to meet the duel urgent needs of our climate goals, as well as our economic recovery. Our approach here will very much be to focus on priority populations, minorities, veterans, disabled workers at-risk youths, and ensure that they have the skills and the training to step into this clean energy market. Now we need to do this carefully. We need to make sure we are training people and they are placed jobs. So, the market development and the training needs to go hand in hand, but it really is an increased focus on our part on targeting our workforce development effort on these priority populations. We've been

working on workforce development for a couple of years, but a big focus here is now on priority populations.

And then on to the last slide, the last focus area you could switch on to, there we go accelerating the transition from natural gas to a low carbon future. Now this focus area is one of our longer term challenges in our, in our climate agenda. And it is about mapping strategies for reducing reliance on natural gas. Given our policy priorities, given market needs, given the impact of fossil fuel derived methane on our overall climate agenda. And specifically this deep dive we'll outline NYSERDA's work to develop an advanced solutions to meet the thermal needs of New York businesses and residents. So primarily how are we heating our homes? However, we're heating our businesses and how are we meeting the thermal needs to drive industry and industrial activity across New York state.

So, we're kind of think about this in two different time timeframes in the near term. When we look at ways to bend the gas demand curve to reduce the use of fossil fuel derived natural gas we have two tools that we can, we can work with. We have the tool of energy efficiency, and we have the tool of, of building electrification. And we are certainly bringing those tools to bear. But if we were to just look at the issue of electrification, heat pumps, for example, if we were to just focus on the best consumer economics for heat pumps, that would steer you somewhere in, you know, NYSEG ,RG&E territory. But when you query, I think because of the price of electricity and oil use, but when you query, you know, where is it we actually have gas system constraints, potential gas, demand, supply constraints that steers you in a different part of our geography. So, you know, we're all familiar with the challenges that we've been having with the, within the ConEd area, within the high growth areas, within the downstate National Grid area. So what we're getting at here is we need to take these tools of heat pumps that not just bring them to bear where the consumer economics is the best, but bring them to bear in regions of the state, where we can actually have a positive impact on the potential growth of natural gas.

When you look at the projections, the demand projections of ConEd and of National Grid, you can see that there's a significant amount of natural gas growth that is projected around fuel convergence. So get co-, converting oil customers, for example, to natural gas and new construction. And those are two use cases where we really can do more with electrification. So the issue here is to take the tools we have in the near term, but to use them strategically in the geographies where we can working with our utility colleagues, start to bend that natural gas curve. So that's kind of the near-term view that we bring to this issue of reducing natural gas consumption.

From a longer-term perspective, it really is about scaling our efficiency work and our electrification work, and absolutely scaling with an eye toward resiliency. But there's a fairly significant need for innovations around this topic for gas innovations, for new solutions and alternatives to meet our thermal needs. And these include things like renewable, natural gas. These include things like hydrogen, and John Lochner and his team on in the innovation area will and are delving into these topics. So, there is both a near term component to accelerating this transition, and a long-term component to this transition, which we will be working on in earnest for a number of years.

So, so those are kind of in the time we have left a very, very quick outline of the four focus areas for our work. You know, these are the issues that loom large for NYSERDA, both in terms of creating a healthy communities, creating inclusive acute communities, helping to stimulate the economy in particular for priority populations, and really accelerating this transition from natural gas, from fossil fuel methane to, to a low carbon future. And we will be outlining this in more detail for follow-up discussion in January with the Board.

Richard Kauffman (01:55:46):

So, you're just giving us a indication of where, of what we're going to talk about more in January.

Janet Joseph (01:55:52):

So, this is just a directional that correct Richard. This is, this is sort of the direction that we're heading. These are the issues that we see as being very significant for NYSERDA over the planning horizon. And these are the issues that we are mobilizing our teams around as well. So, we'd welcome any reaction, any, any feedback, any, any steer or any input as we continue to develop this further.

Richard Kauffman (01:56:22):

Well, needless to say, Janet, you can call on any of us on the Board if you want to talk through any of the points between now and in January.

Janet Joseph (<u>01:56:32</u>):

Okay. Thank you for that offer.

Sherburne Abbott (01:56:42):

So one of the things I'd love to understand, but this is something for January too, is these are, these are great and significant shifts in thinking for, towards human wellbeing and sustainability and stuff, but that together with a CLCPA and Climate Action Council, I've really, really liked to understand how you internally you are backstopping this broad agenda, you know, whether it's different job descriptions, new personnel, how, how that's, how that's gonna play out, because if it's different, if they're different talents, their different needs, and I wonder how you're doing this

Janet Joseph:

And Shere, maybe that is something we can take up in, in, in more detail. It does. I mean, short answer is it does connect to our diversity and inclusion internal work,

Sherburne Abbott:

It's a big agenda.

Janet Joseph:

And we are mapping out right now, the sort of staff training and development that we need to do to sort of make this shift. And we are mapping that out in real time.

Sherburne Abbott:

Maybe talk more about this [inaudible]

Janet Joseph:

I would love to.

Ken Daly (<u>01:58:01</u>):

And then Janet, I think likewise for January, I mean, at the risk of sounding like a former natural gas executive, I would like to just understand the whole Glidepath challenges. So I completely support, you know, the migration to wind and solar, of course, and any form of renewables where I do get worried is I still am seeing a lot more oil on the system than perhaps we would have seen otherwise in certain pockets. So migrating it to some form other than oil, I think is so important in the near future.

And I do worry about the economics as well. And that, unfortunately right now, the lower price point fuel is natural gas, the higher price point fuel, or some of the competing fuels. How do we kind of Glidepath customers through that without, you know, too much environmental or economic disruption?

Richard Kauffman:

Well, Ken, it sounds to me like you may have a little assignment between now and January.

Ken Daly:

Yep. Happy to, happy to raise my hand and help if you are Richard.

Janet Joseph:

Okay.

Richard Kauffman:

Okay. All right. Any other thoughts or questions? All right. Very good. Thank you, Janet. That's a, we really look forward to, to the next steps. All right. We now turn the, to the consent agenda. There's one item on the consent agenda resolution number 1604 would, would approve the periodic contracts report and amendments to the Authority's Procurement and Program Contract Guidelines, Operative Policy and Instructions.

So, we'll do both those things in the single consent agenda resolution. Counsel's office has compared the list provided by members of entities with which each member is associated, which he or she believes may enter into contracts with NYSERDA to the list of contracts and the periodic contracts report, Counsel's office reports just the one potential conflict. New York University, identified by Mark Willis. Mark, can we assume that you wish to abstain from the vote to approve the contracts with this entity?

Mark Willis:

Yes you can.

Richard Kauffman:

Thank you. Are there any questions on these items? If not, may have a motion approving resolution number 1604?

Basil Seggos:

So moved.

Richard Kauffman:

Second?

Gil Quiniones:

Second.

Richard Kauffman:

When Peter calls your name, please indicate whether you are in favor by stating aye or opposed by stating no.

Peter Costello(02:00:50):

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Thank you, Mr. Chairman first, I will take your vote.
Richard Kauffman (02:00:54):
        Aye.
Peter Costello (<u>02:00:55</u>):
       Vice Chair Quiniones.
Gil Quiniones:
       Aye.
Peter Costello:
        Shere Abbott.
Sherburne Abbott:
        Aye.
Peter Costello:
        Ken Daly.
Ken Daly:
        Aye.
Peter Costello:
        Commissioner Dominguez. Commissioner Dominguez?
Marie Therese Dominguez:
        Aye.
Peter Costello (<u>02:01:11</u>):
        Thank you, Kate Fish.
Kate Fish (02:01:14):
        Aye.
Peter Costello (<u>02:01:16</u>):
        Thank you. Chair Rhodes.
John Rhodes (02:01:19):
        Aye.
Peter Costello:
        Commissioner Seggos.
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Basil Seggos:

Peter Costello:

Aye.

And Mark Willis.

Mark Willis:

Aye.

Peter Costello (<u>02:01:27</u>):

Thank you, Mr. Chairman, I'd like to note for the record that two members were unable had, have left the meeting prior to taking this action Jay Koh and Chuck Bell. Nevertheless, with nine members, we have retained a quorum and therefore with nine affirmative votes, the resolution has been approved.

Richard Kauffman (<u>02:01:46</u>):

Thank you very much. And thank you all the last item on the agenda is other business. Are there any other matter the members would like to discuss? There being none, may I have a motion to adjourn the meeting?

Sherburne Abbott:

So moved.

John Rhodes:

Second.

Richard Kauffman:

Thank you, In favor?

Board Members [in unison]:

Aye.

Richard Kauffman:

Any opposed? the meeting is adjourned. Thank you all very much.

Various [Goodbyes]:

Thank you. Thanks everyone. Thank you. Thanks all. Bye bye.