

# Transportation Advisory Panel Meeting

## February 18, 2021 | 11:00am-1:00pm

### Attendees

#### Members present:

- **Chair**, Marie Therese Dominguez, Commissioner, New York State Department of Transportation
- Jared Snyder, Deputy Commissioner, New York State Department of Environmental Conservation
- Albert Gore, Policy and Business Development, Tesla
- Bob Zerrillo, Policy Director, New York Public Transit Association
- Elgie Holstein, Senior Director for Strategic Planning, Environmental Defense Fund
- Julie Tighe, President, New York League of Conservation Voters
- Kendra Hems, President, Trucking Association of New York
- Kerene Tayloe, Director of Federal Legislative Affairs, WE ACT for Environmental Justice
- Nancy Young, Vice President, Environmental Affairs, Airlines for America
- Nick Sifuentes, Executive Director, Tri-State Transportation Campaign
- Steve Finch, Senior Vice President, Automotive Services, AAA Western & Central New York
- Paul Allen, Senior Vice President, M. J. Bradley & Associates
- Dimitris Assanis, Assistant Professor, Stony Brook University
- Porie Saikia-Eapen, Director, Environmental Sustainability and Compliance, Metropolitan Transportation Authority

#### Members not present:

- John Samuelson, International President, Transport Workers Union
- Renae Reynolds, Transportation Planner, New York City Environmental Justice Alliance
- Craig Turner, Executive Director, Buffalo Niagara International Trade Gateway Organization

#### Key staff present:

- Adam Ruder, New York State Energy Research & Development Authority
- Ron Epstein, Department of Transportation

### Meeting Notes

#### Welcome and Introduction

- Ron Epstein, on behalf of Commissioner Dominguez, welcomed everyone, introduced the agenda, ran through meeting procedures, and did roll call.
  - Commissioner Dominguez was engaged in managing DOTs storm response activities and was delaying in joining the meeting.

#### Topics for discussion with Just Transition Working Group (JTWG)

- Ron: The JTWG contains 17 members and has vast interests. The Climate Leadership and Community Protection Act (CLCPA) empowers this group with several tasks, including oversight of Energy-Intensive and Trade-Exposed (EITE) Industries and workforce development during the clean energy transition. Also, JTWG is looking at potential powerplant sites that will be closed as

a result of the transition to renewable energy and the opportunities and challenges associated with those closures. As the Transportation Advisory Panel (TAP) develops recommendations, we need to make sure they are integrated with considerations for trade-exposed entities. We also need to consider particularly exposed populations. Lastly, we need to consider workforce development opportunities.

- Jared: We have scheduled a meeting with JTWG to get their input on strategies to be considered by the TAP. Key focuses are: what strategies should we be thinking about as far as building the workforce to support the transition to clean transportation?; What are the business opportunities?; What are the opportunities to ensure that our communities benefit from that transition? The meeting is scheduled for the 23<sup>rd</sup> and we want to put together a delegation from this panel to meet with them. So far, Kendra has volunteered, but we're interested in who else would like to be part of that conversation. Any volunteers?
- Kerene: Depending on the time, I could participate. We recently released a green jobs report with best practices.
- Ron: I think it will be in the morning, maybe 9:00-11:00am.
- Kerene: I can do it!
- Elgie: I would like to volunteer as well.
- Paul: Me too.
- Ron: As we go through the conversation, we need to consider the following: what are the workforce opportunities, what are the challenges (and its impact on labor), what kind of workforce development skills are needed, how does this impact businesses in NY, and what do we need to do to ensure the businesses can pivot to benefit from this transition? This is all in relation to a clean transportation transition. We also need to consider how this impacts shipping and logistics. How can we work cooperatively with other sectors to ensure that cross-training occurs, and the availability of workers meets demand moving forward?
- Ron: I will now ask the group for input on what can we do to ensure that we're planning far enough ahead so that supply chains are not disrupted.
- Kendra: In terms of workforce development, we have a driver and technician shortage already. This will be even worse with the continuous introduction and implementation of new technology. We need to ensure we have the workforce that is trained to maintain and keep these trucks on the road. This is also true of drivers. The shift to cleaner vehicles may actually help younger generations think about trucking as a potential career. As the industry makes cleaner adjustments, this may align more with the values of younger generations, attracting them to the industry.
- Ron: It may also attract people who are in other technology sectors, who have not considered trucking. It is almost like video game production. We'll need people who do coding, software editing, etc.
- Kendra: This is something that we're doing today. We're trying to change the image of the industry. It's not just turning wrenches anymore. Even today we use computers to diagnose problems and upgrade software in the trucks. This could be attractive to someone who hasn't considered being a truck technician in the past. This could also hold true for drivers when we talk about automation. Automation won't kill jobs; it will be a slow transition. Drivers that retire and leave the industry, we don't look to replace those positions. There will be other positions created to support those automated trucks. We also need to train drivers on what is in the trucks, as we consider new vehicle technologies.

- Kerene: My father actually works in this industry (fixing trucks). There are a lot of concerns in that industry about electric vehicles (EVs) and how different they are. I wonder if we should be focusing on that training now. Especially getting people trained early in their careers. We should be thinking about technical schools and high school programs.
- Kendra: Yes, we need to be proactive. We don't know what the timeline is, but we need to make sure we're prepared for the transition. Training needs to start today. There are a number of schools that do computer-based learning (CBL) training, both for students and adults. We can start with those schools. We're making contacts with them now and we think they can be really useful to prepare individuals for what is coming.
- Ron: Steve, you work in an industry that has already gone through a big change in terms of emissions requirements and how that impacts the inner workings of a car. Do you have anything to add to this?
- Steve: The transition, like you just described was very interesting because internal combustion engine (ICE) technology has changed so dramatically over the years. There is a tremendous amount of energy put into ICE technology to make it more fuel efficient and reduce emissions. The technology that got added to conventional engines was enormous. All these new electrical components were a big training issue for technicians. The difference was that this was additive to technology that was previously well known, whereas with this situation, it is a total disruption. I'll tell you from my experience, we got a call from a Tesla vehicle that ran out of charge and when it got to the charger, the driver didn't know how to charge the vehicle. There's still going to be a lot of vehicles on the road that have a mixed level of technology. We're going to need to have people with the knowledge of old and new technologies during the transition. The whole shift towards electrification will have to be accompanied by electrical knowledge. They'll need to be as adept with computers as they are with wrenches. I agree it needs to start with schools and training. AAA is engaged with high school classes.
- Kerene: Nationally, our math scores are not on par. If we are asking students to be ready for these types of jobs, they will not be equipped. In the renewable energy space, they're finding that people don't have the baseline knowledge for this stuff. Thinking more holistically, we need to bring schools up to par to provide the technical knowledge and foundation these populations need.
- Kendra: Generally, people who come into these fields don't go to college. Now we're going to be asking these individuals to have those higher-level skills, such as coding, etc. This is a big shift. We're going to be asking a lot more from these students than we do today.
- Kerene: Even beyond that, as vehicles become self-driving, understanding coding and technology will also be critical.
- Dimitris: I know these appear to be extremely disruptive technologies, but we need to put everything into context. A career is 30 years long. If we start looking out to 2050 for an entire fleet in the US, there will still be a lot of ICE vehicles. We don't need to start training immediately. We do want to be ahead of the curve, but we still have a long way to go. It is a similar story with automation.
- Kerene: I agree with you, but the reality is that the transition is going to happen in cycles. There needs to be different training for the next generation versus those that are already well-entrenched in their careers. We should be starting now with the younger generations, so they are well-positioned in the long-term.

- Ron: I do want to ask Bob Zerrillo, what are your thoughts on the transportation industry being able to compete with private businesses in a green economy, in terms of attracting higher skilled tech employees?
- Bob: The public transportation industry is very similar to the trucking industry in many respects. We compete for many of the same drivers and technicians. We are going to face all of the same challenges. The competition is certainly an issue. We're having trouble competing for bus drivers right now, since the trucking industry paying higher wages. The other economic benefit that we've talked about in earlier meetings is the Metropolitan Transportation Authority (MTA) and other transit entities buying equipment produced in New York. We need to train those folks too. This is a training and jobs creation opportunity. I'm not sure how we address the competition aspect, other than to grow the pie. Start early with the training. If we're shrinking in population, it will be hard to fill these jobs.
- Ron: Part of what we're trying to do here is make sure that everyone benefits. We're asking people who may or may not have the ability or desire to go to further educational levels. So how do we actually lift up individuals who do not have access to quality education?
- Jared: I want to jump in on a point that Dimitris raised. What is the business-as-usual scenario of EV adoption? We'll talk about it in a few minutes, but we need to accelerate this adoption to meet compliance with the CLCPA. In 2050, almost all light-duty vehicles will be EVs and many heavy-duty vehicles will be as well.
- Ron: Before we move on to the next topic, I want to put out a last call for any final comments.
- Paul: One ray of hope here is that the New York Power Authority (NYPA) has run a program to support STEM education in school systems that are in environmental justice communities. This gets at Kerene's point that we need to recognize that fundamental skills are not being developed, and that we need to reach these kids now in order to develop the workforce of the future. We could expand the NYPA programs to be a state-wide program.
- Ron: Great, thanks Paul. Good point.
- Porie: One of the things we do at the MTA is a massive training program. We have trainings all the time, particularly as we transitioned from diesel to hybrid vehicles. So the current workforce regularly gets trained. The training is not just for EVs, but for anything related to energy efficiency, climate impacts, adaptation and resilience. The other thing is that we are getting a lot of young people interested in working in public transit. Those who are interested in environmental stewardship want to do clean transportation work. The third thing I want to mention is that we do work with the universities as well. We provide information to them about the types of skills we're looking for, so they can prepare their students for a career. I just wanted to mention that a lot of this is happening and big public sector groups, such as MTA, are heavily involved. The governor's office has done this as well.
- Kerene: I also want to lift up that there are racial issues with unions. So even if these are good union-paying jobs, we need to address some of the diversity issues within unions, which don't afford the same opportunity for people of color.
- Ron: Thanks everyone. This has been an excellent conversation. If others want to participate in the meeting with JTWG, please let me know.

#### **Review of Advisory Panel recommendations template for Electrification and Clean Fuels strategies**

- Ron Epstein introduced this agenda item (see slide 7).

- Adam Ruder presented the Electrification and Clean Fuels subgroup panel recommendations template (see slides). Discussion following his presentation is covered below.

Discussion after slide 8:

- Elgie: It seems that in the points made at the bottom of this chart, there are references to the new burdens on utilities. On the flip side, these utilities are going to sell a hell of a lot more power, which will help their bottom line. It seems to me that there needs to be a balancing of interests here. We've heard that electricity demand for EV buses is really high in NYC, but we need to recognize that there are going to be mutual benefits.
- Adam: That's a good point. We're still having discussions about how to flesh out some of these points. NY has a decoupled electricity market, so selling more electricity isn't necessarily the same as selling more of a product in other industries. Profits aren't tied to the number of electrons delivered.
- Paul: That's right. Selling more electrons doesn't necessarily benefit utilities. There will be a need for more distribution infrastructure, which will improve their bottom line. However, we want electric rates to decrease for ratepayers.
- Elgie: We've been approached by a national industry group that supports convenience stores and other market actors. They don't want utilities to be involved, particularly in installing EV chargers. They are arguing that prices will go up.
- Paul: I'm not advocating for utilities to install chargers. I think these organizations you're talking about have their facts wrong.
- Julie: Do we want to be more explicit about the CA standards? Can we be more explicit? For example, say 100% zero emissions vehicle (ZEV) sales by 2025.
- Adam: We'll get into that on the next slide.

Discussion after slide 10:

- Julia: That was very helpful. I think it would be helpful on the previous slide to make it very clear what the goal is (100% ZEV sales by 2035). We should also be thinking about how many ZEVs we need on the road by 2030 to meet the targets.
- Jared: The pathways report indicates 60-70% of new sales by 2030 is what is needed to be on pace to achieving goals. That is somewhat aligned to 100% of sales by 2035. If the path forward here is adopting CA, we'll have to adopt them as they adopt them, as they haven't been finalized yet. Based on the trajectory, we can determine whether we need to rely more on some of these complementary strategies here.
- Dimitris: Does this look at the lifecycle emissions of the vehicle? Do we need to add a line here about the source of energy here to make sure we're on track?
- Jared: The CLCPA has requirements around this (i.e. zero emission electricity grid). The Power Generation panel is charged with ensuring the supporting policies are in place to achieve this. They're responsible for looking at emissions from the power sector.
- Dimitris: So, we can take it as a baseline that we'll have renewable electricity?
- Jared: Yes.

#### Discussion after slide 11:

- Julie: I want to express an appreciation for putting disadvantaged communities (DACs) front and center, so thank you for that.
- Steve: I want to also make the point that there are many communities where you have single family homes without garages. That is going to be a significant issue, regardless of whether they are DACs or not, because they won't be able to plug in at night like those who have garages.
- Adam: That's a good point. This has not been a problem for early adopters but will definitely be a problem as the market is expanded to a broader audience. This is particularly relevant for New York. How do we make charging and hydrogen fueling accessible?
- Jared: That's a great point that Steve raises. We could be transitioning to some extent to more of gas-station type experience in the long run, where charging is very fast. Part of the issue is how long does it take that technology to mature?
- Ron: One of the things we should do in the just transition portion of this slide is integrate some of the conversation we had today. Getting to the specific types of training and need for knowledge of electricity and coding.
- Jared: On that point, we would also bring in content from the conversation with JTWG. This is really just a first draft of what we'll show the Climate Action Committee (CAC) in April.

#### Discussion after slide 13:

- Elgie: In an earlier conversation, someone from the port authority expressed interest in the bottom component. It would be great if we could include airports for that. These slides are really high-level, so I'm trying to understand what some of this means. What does fleet users mean?
- Adam: A lot of these fleets lease vehicles. So, it includes the fleet and vehicle operators, but also the vehicle owners.
- Elgie: Based on data we've seen here, the ZEV incentives may be prohibitively expensive. I just want to reinforce that it may be possible to scale the incentives issued to focus first on things like ports and airports, which would maximize impacts and help reduce emissions in environmental justice (EJ) communities. I wasn't sure if that was within this high-level bullet.
- Adam: That's a good point and yes, we need to recognize that there is a lot of detail behind these. These are really high-level.
- Nancy: I want to weigh in on the port issues. I just want to clarify that airlines sometimes own a portion of ground equipment and sometimes it is the airport, so just want to point out that there are differences there. I also want to point at that there can be federal preemption when it gets into airport operations and service. There are also several applications for ground equipment that can be electrified, and they've already done it. Some cannot be.
- Elgie: I don't think anyone is talking about a requirement that would impact airport operations. But it is reasonable to create requirements for airlines to meet requirements if they want to operate at the airport.
- Nancy: But that would be preempted. You can't set it up that way.
- Elgie: Maybe if you craft it as an emissions limit. But we should probably take this conversation offline.
- Nancy: There are already emissions limits on equipment. Airports can create additional requirements, but they can't require that things become electric.

- Elgie: I don't think issuing a short-term requirement is on the table, but rather it's a goal that you work on over time.
- Julie: Christine offered to have an offline conversation on zero emission ground support equipment at airports.
- Nancy: sounds good, I'll bring my ground support experts.
- Julie: There will probably need to be a longer lead time for the medium and heavy-duty category to transition to zero emission vehicles, so we need the right incentives in place. We should also think about shifting to cleaner fuels in the near-term while these transitions are in place.
- Adam: Yes, good point. We've been having these conversations as a subgroup and will put slides together for that too. Some of that will come through with a clean fuels standard.
- Kendra: We have to look at on-road charging, which Department of Transportation (DOT) will need to be involved in for their highway rest stops. Also need to pull in private truck stops. The lack of available truck parking is an issue. There isn't enough space for trucks to find parking. If they can't find parking today, where are they going to be able to find parking to charge their trucks in the future? I would raise the issue of the minority- and women-owned business enterprise (MWBE) requirements, because that is a group that will be resource-challenged in making the transition to electric vehicles. What I'm finding on truck financing is that there is not a lot out there on EV or alternative fuel trucks. The groups who are testing, such as UPS and Wegmans, and they can get financing, but smaller fleets can't do it because financing institutions are concerned about the retail value. The ROI is not clear. There is not a lot out there, in terms of organizations offering incentives.
- Adam: I would agree on the financing side. We've been working with the NY Greenbank and they've been saying the same thing as you. Determining the residual value is an inhibiting factor. Also, the scale is a problem, where smaller actors can't do it. We're working on some policy ideas in the financing subgroup to rectify that. Your point on the infrastructure is well-taken as well.
- Ron: Can you elaborate a little bit more about how utility rate design can impact operational cost?
- Adam: The story is different depending on the utility. Electricity costs are very different between municipalities, Con Edison, and National Grid. For any of these fleet operators, some of the electric vehicles can charge anywhere from 50 kilowatts (kws) to hundreds of kws. Some vehicle depots can handle this while some cannot. Many will require upgrades to do this. So, you're paying for that. Also, many commercial rates have a demand component, which correlates to your peak usage during a monthly period. This can rise dramatically when you charge electric vehicles, which is something that many fleet owners don't consider. The first thing is making them aware of this difference. The second is to help people understand what their alternatives are. Sometimes switching to a different rate can make a big difference. Also charging during off-peak times can make a big difference. Some utilities are starting to offer consulting services to help fleets optimize this. Many of these fleet operators are not experts on electric rates. They need training on this.

Discussion after slide 14:

- Kendra: We need to look at where facilities are and pull them into conversations. They'll need charging infrastructure if they're going to transition.
- Ron: Any other additional conversation on the rubric or presentation?

## Plans for Additional Expert Input/Research

- Ron: What we would like to discuss are the plans for the next couple of weeks as we work to finalize the recommendations. Adam, can you update us on policy briefs for alt fuels and vehicle miles traveled (VMT) management?
- Adam: Cadmus is finalizing those briefs tomorrow. We'll review them and provide feedback and get those finalized soon and then pass to the panel.
- Ron: What about the broader sector-wide modeling?
- Adam: We've been refining these results and expect to share results later in March.
- Ron: We are also in the process of trying to finalize a freight roundtable. We are looking for representation from:
  - American Association of Railroads
  - American Trucking Association
  - Amazon
  - a representative from the education community from Syracuse University
  - Cargo Airline Association
  - Airlines for America
  - maybe USPS
- Nancy: We can participate as well.
- Ron: Great, thank you Nancy. Jared, you are working on a health/equity roundtable, can you update us on that?
- Jared: Yes, we've been discussing with the market-based financing subgroup about the opportunity to do this. The idea is having a discussion around the health impacts of market-based policies. We want to explore further what the opportunities are in program design to ensure that health benefits are realized. For example, targeting funding to DACs. We're still figuring this out, but welcome input from panel members.
- Ron: Before we get to next steps, anything people would want to add to our discussion today?

## Next Steps

- Ron Epstein presented next steps (see slide 16) and opened the floor for discussion, then closed out the meeting.