

119 Washington Avenue, Suite 1G Albany, NY 12210 518.432.1405 info@aceny.org | www.aceny.org

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<u>Updates from Climate Action Council and Advisory Panels - Late February- March 3, 2021</u>

Anastasia Gordon, Clean Energy Policy Fellow and Jeff Jones, Communications Consultant, ACE NY

Climate Action Council - Friday, February 26, 2021

At its eight meeting on February 26, the Climate Action Council (CAC) primarily focused on presentations on electrification from the Transportation and Energy Efficiency and Housing Panels. The CAC, which will be developing a Scoping Plan to implement NY's climate law, also received updates for state agencies.

After remarks and reflections from co-chairs Doreen Harris (NYSERDA) and Commissioner Basil Seggos (NYS DEC), the CAC received preliminary findings from the Transportation and Carbon Neutral and Building Electrification Roadmaps currently being developed on behalf of NYSERDA. The Transportation and Energy Efficiency and Housing Panels then outlined key strategies under consideration to accelerate vehicle and building electrification.

For transportation, these strategies included zero-emission sales requirement for passenger vehicles and for trucks and buses, purchase incentives/feebates especially low-medium income (LMI) consumers, EV ready building codes, managed charging, and reforming rate options to encourage investments in charging stations. On the other hand, the Energy Efficiency and Housing Panel building electrification strategies encompassed regulations to phase out fossil fuel use, comprehensive planning for the transition, building performance standards, and incentives for to transform the market with a focus on uptake in affordable housing, low-income customers, and disadvantaged communities.

John Rhodes (NYS DPS), the chair of Power Generation Panel also highlighted grid considerations of electrification. These considerations include minimizing system costs and optimizing deployment of resources for flexibility, managing load, and clean dispatchable generation. He also emphasized the need for holistic planning and to pay attention to resiliency and reliability of the energy system as NYS transitions to greater electrification. Furthermore, he noted that the best way and foundation of making the

challenges of the future grid more manageable is through energy efficiency while also ensuring that disadvantaged communities are not hit hardest by grid costs.

During feedback, CAC members shared a number of insights and suggestions. Several emphasized the need to transmission and distribution upgrades. Raya Salter (NY Renews) called for the Panels to consider equity in doing those upgrades. Donna DeCarolis (National Fuel Gas Distribution Corporation) further emphasized the need for resilience in energy delivery like storm hardening and underground wires. Carbon pricing was another overarching recommendation proposed by some CAC members for all Panels

With respect to building electrification, Dennis Elsenbeck (Viridi Parente) highlighted that current building codes are restrictive to battery storage while Bob Howarth (Cornell) noted that the Housing Panel consider higher incentives for ground source heat pumps which will lessen the impacts on the grid. Specific feedback with regards to transportation electrification strategies included using of time of use rates to encourage off-peak EV charging and promoting vehicle-to-grid solutions. Peter Iwanowicz Environmental Advocates NY's expressed his concern over the recommendation for adopting a clean fuel standard and Anne Reynolds (ACE NY) suggested that the Transportation Panel consider strategies to attract EV manufacturers to NY especially for transit buses and medium-and heavy-duty vehicles.

NYS DEC staff then updated the CAC about upcoming public hearings in March for the first annual greenhouse gas inventory, which is required under NY's climate law. This report is due in January 2022. Commissioner Seggos also informed the CAC that its upcoming meeting will be dedicated to reports-outs on Panel recommendations. The Agriculture and Forestry, Waste, Energy-Intensive and Trade-Exposed Industries Panels, and the Just Transition Working Group will present on April 10 while the Energy Efficiency and Housing, Land Use and Local Government, Power Generation and Transportation Panels will be on May 12. In the final moments of the meeting, Commissioner Seggos thanked retiring John Rhodes PSC Chair for his service. More information on CAC meetings can be found here.

Transportation Advisory Panel – Wednesday, February 24, 2021

The Transportation Panel held its second listening session to gain public input on its draft recommendations on February 24. Recommendations, which will be finalized and advanced to the Climate Action Council (CAC) in April, cover electrification and clean fuels, public transportation, smart growth, and market-based measures and financing.

After brief remarks from the Panel Chair, Commissioner Marie Therese Dominguez (NYS DOT) and an outline of these recommendations, stakeholders were invited to give comments. There was great show of support for biofuels and adopting a low carbon fuel standard (LCFS) with many emphasizing the greenhouse gas emissions reductions and

public health benefits, especially in disadvantaged communities. Commenters such as Rich Kassel (Capelino) emphasized that the LCFS and the Transportation and Climate Initiative (TCI) could be complementary programs that can provide funding for public transit and transportation electrification.

Investment in electric vehicles (EVs) and charging infrastructure was another key emphasis in feedback. ChargePoint's Kevin Miller urged the Panel to address antiquated electricity rates in order to incentivize investment and deployment of EV fast chargers and thereby EV adoption especially for transit buses and fleets. ACE NY's Anastasia Gordon also emphasized the need allow the direct sales of EVs. Moreover, Jen Robertson from the NYC's Mayor's Office of Sustainability added support for electrification should be targeted towards small fleets and high mileage trucks while Sierra Club's Jessica Enzmann called for aggressive targets for state fleets. They also reiterated the need to change codes to facilitate EV-ready buildings and parking. In addition, many commentators urged the Panel to adopt California's zero-emission vehicles (ZEV) sales mandates, Advance Clean Truck and Heavy-Duty Omnibus rules.

Equity was also a prime focus. Ibrahim Abdul-Matin (Healthy Air Alliance) and Alok Disa (Earthjustice) called for the Panel to prioritize air quality strategies such as air monitoring programs and green zones targeted towards environmental justice (EJ) communities. Ya-Ting Lui of VIA encouraged the Panel to consider better connections to transit hubs and incentives for on-demand transport services including in rural communities where it is difficult to go anywhere without personal cars. While Pete Sikora (NY Communities for Change) proposed taxing the rich to fund mass transit maintenance. Another speaker emphasized the need for greater accessibility for EVs through purchase incentives to encourage EV adoption by low-medium income consumers and persons with disabilities.

Other suggestions included the need for micro-mobility such as e-bikes, bike corridors and complete streets, public education and training for mechanics and fleet operators in EVs and utilizing hydrogen to drive emissions reductions, among others. Commissioner Marie Therese Dominguez ended the public engagement remarking on the diversity of views and encouraged stakeholders to continue to submit comments via email. The Transportation Panel reconvenes on March 9. Meeting notes and the presentation for the public engagement session can be found here.

Climate Justice Working Group – Wednesday, February 24, 2021

The Climate Justice Working Group (CJWG) met on February 24. The CJWG is charged with identifying criteria to define disadvantaged communities under New York's climate law, the Climate Leadership and Community Protection Act (CLCPA). Illume Advising, the research organization assisting the CJWG with its work, gave an update on its progress to date on data collection and identifying indicators. Preliminary analysis of criteria like income and exposure to pollution reveals that a large proportion of these

communities are located in NYC. Ilume will be reaching out to the CJWG to ground truth further insights revealed from continued analysis.

The working group intends to finalize daft criteria in March and hold public engagement sessions thereafter. Under the CLCPA, the CJWG must hold 6 regional public hearings when it finalizes the criteria to define disadvantaged communities. Chair Rosa Méndez suggested having three education opportunities to update the public of the work of the CJWG followed by traditional public comment sessions. This was met with broad agreement by CJWG members. Elizabeth Yeampierre (UPROSE) emphasized frontline communities as well as proposed having presentations to frame climate justice. Others highlighted need to account for multiple languages and being mindful of community availability when scheduling these public input sessions.

There was also a discussion on the CJWG's engagement with the Transportation Panel. Some working group members expressed concern with their recommendation to adopt a clean fuels standard and advised state staff to read NY Renews "False Solutions" report. The report outlines environmental advocates opposition to biofuels and other alternative fuels and technologies. For recordings, minutes and presentation slides from this and previous CJWG meetings, visit here.

Just Transition Working Group - Tuesday, February 23, 2021

By Jeff Jones

The Just Transition Working Group met on February 23, to update its policy development. It featured brief farewell comments from retiring Public Service Commission Chair John Rhodes and continued working on the panorama of interests in the Just Transition discussion. Planning in the workforce space is being looked at from a range of perspectives, including those whose jobs in the fossil fuel industry will be eliminated over time, training at multiple levels, especially to address historic inequities, and career guidance starting in K-12 schools and continuing through union apprenticeship programs. On-the-job training is seen as critical as the clean energy industry advances.

In his farewell comments, Rhodes summarized two points for the group to embrace: Planning is better than not planning, and the sooner planning gets underway for impacted workers, the better.

Discussing planning and training, Pace University Professor Omar Freilla urged consideration not just for people already in the changing energy industry, but also to for those whose entry industry has been historically blocked. Several speakers agreed, including NYSERDA Acting-President Doreen Harris who urged outcomes that resulted in equal advantages for all constituencies in the Workforce Space. Harris referred to NYSERDA's Energy Jobs Report as a tool for evaluation.

In a further refinement of the discussion, led by NYSERDA's Adele Ferrante, workforce issues were considered from both the demand – e.g., training and education -- and supply -- hiring policies, wages, health care, pension benefits, local hiring practices/ apprenticeship training needs – sides. All agreed the goal is creation of stable, well-paid jobs in the clean energy sector.

Various education and training programs were inventoried, including the new Climate Justice Job Corp Fellowship Program proposed earlier this year by Governor Cuomo. NYSERDA is developing the program which it plans to launch soon. The one-year fellowships will include living wages and benefits for participants.

The second part of the meeting featured a dialogue with members of the Transportation Advisory Panel from the Just Transition perspective.

The JTWG will meet again on March 3rd and March 23rd as it looks to wrap up its report to the Climate Action Council.

Land Use & Local Government Advisory Panel – Monday, February 22, 2021

By Jeff Jones

The February 22nd meeting of the Land Use & Local Governments Advisory Panel (LULGAP) agenda featured an update on trends emerging from public comments to the panel, a presentation from the Just Transition Working Group, and reports from several subgroups.

Based on the number of public comments filed, carbon sequestration has emerged as a topic of concern, both to the public and to the panel itself.

Two representatives of the Just Transition Working Group presented and explained 10 principles that are emerging to guide the work of the various advisory panels and, eventually, the Climate Action Council. NYSERDA's Kara Allen explained that the principles are not to be seen as mandates for the work of other panels, but are meant to guide or serve as points of reflection as various proposals emerge. (For more on the JTWG, see report of Feb. 23rd meeting.) By way of clarification, a panel member asked if the principles were just a laundry list of ideas, otherwise, how are they being incorporated. Panel member Gita Nandan said she views the principles as targeting those communities that have been left out.

The panel then heard from several subgroups, including: Adaptation and Resilience, Land Use, Carbon Sequestration and Clean Energy.

Noting that the state lacks a climate adaptation plan, Committee Staffer Mark Lowery (NYSERDA) reported that the Adaptation and Resilience subgroup discussed 9 different initiatives, including that all state projects include an analysis of adaptation and risk reduction, including evaluations of inland and coastal flooding and wetland impacts, the impact of thermal extremes on public health and the disruption of eco-systems. (It should be noted that the CLCPA requires this type of planning.) The nine initiatives will be further discussed by the panel and will then be available for public comment at the public session scheduled for Monday, the 8th of March.

There were quick reports from the Land Use subcommittee, which will be cross-meeting with the Agriculture & Forestry Advisory Panel (AFAP) after that panel's recommendations are published. The Carbon Sequestration subcommittee is also planning to meet with the AFAP in the near future.

Paul Beyer (Dept. of State), reporting from the Land Use subgroup, noted the group's on-going support for expanding existing CLCPA-consistent Smart Growth programs – including the need for state facilitation of smart-growth planning initiatives – and a growing awareness of the importance of public health impacts from an environmental justice perspective (also required by the CLCPA). Recommended smart growth infrastructure inducements, for instance in an expanded Brownfield Opportunity Areas (BOA) program and in the updated State Infrastructure Act, are being considered for recommendation. Beyer noted that the existing Regional Economic Development Council structure could have a vital and expanded role to play.

Similarly, NYSERDA's Brad Tito reported on the work of the clean energy subgroup. The report focused on the need to create a statewide dashboard to help local municipalities quantify greenhouse gas investments. The goal is to create consistency in statewide reporting to help lead to actionable solutions. The subgroup is looking to build on existing state programs like Clean Energy Communities and Climate Smart Communities, which appeal to different sections of the market.

Tito also recommended Scenic Hudson's solar mapping project as a regional model to be followed.

The next public steps for the LULGAP include the second Local Officials Roundtable on March 2nd. And there will be an opportunity for public comment following the March 8th panel meeting.

Waste Panel Advisory Panel – Monday, February 22, 2021

On February 22, Waste Panel held its seventh meeting. The meeting was largely dedicated to subgroup updates as they work towards finalizing its recommendations to the Climate Action Council (CAC). These recommendations will be presented to the CAC in April 2021.

Before delving into these updates, Chair Martin Brand gave several updates including a request for comments on the Integration Analysis assumptions. The Integration Analysis will incorporate the recommendations of all advisory panels and working groups to evaluate societal costs and benefits of these greenhouse gas (GHG) mitigation strategies for the consideration of the CAC. He also noted that the Panel's final recommendations are due on the same date.

The subgroups were advised to consider equity considerations as they develop recommendations including jobs, preservation of culture, natural working lands, and impacts on disadvantaged communities. Panel member, Tok Oyewole (NYC EJA) further reiterated that subgroups should consider both how these recommendations mitigate climate change but also address environmental impacts like food waste, single use materials, food insecurity, transport, among others. Chair Martin Brand informed the Panel that engagement with the Climate Justice Working Group will occur moving forward.

Next, Jane Gajwani (NYC DEP) wastewater resource recovery reported out on the mitigation strategies being considered for the wastewater sector. Tok Oyewole called for the subgroup to consider the use of EV trucks for waste haulage to reduce pollution from truck traffic in disadvantaged communities. Lauren Toretta (CH4 Biogas) also suggested expanding where we food waste collected such as farm and private digestors to alleviate the truck traffic in these communities. Concerning existing wastewater treatment plants, Dereth Glance (Onondaga County Resource Recovery Agency) proposed that the Panel consider investments into energy efficient and efficient designs. Bernadette Kelly (International Representative & Recording Secretary Teamsters Local 210) also raised the issue of potential in relation to one strategy would involve shifting from septic to sewer systems to reduce methane emissions.

Resa Domino then gave an update of the recommendations under consideration by the material management subgroup. She noted that strategies, which cover waste reduction, increasing recycling, and organic management (including an organics study), were identified as easy but may not be so given the behavior change that is necessary. Chair Martin Brand suggested that the group identify Per- and polyfluoroalkyl substances (PFAS) contaminants as a barrier for expanding recycling. There was also discussion around distinguishing what products and materials would be managed through extended producer responsibility schemes/the market versus those that would be regulated/phased out due to their social costs and impacts.

In closing, Chair Martin Brand encouraged the subgroups to keep working and refining recommendations. At the next Panel meeting on March 3, the landfills and the local scale and climate justice subgroups will be presenting their mitigation strategies. Stakeholders are invited to provide written comments via email. Full meeting notes and presentations from the Waste Panel can be found here.

Power Generation Advisory Panel – Monday, February 22, 2021

The Power Generation Panel met for its eighth meeting to continue the review of its draft recommendations on February 22. This time, the Panel focused on workforce development, access and affordability for all, and the growth of large-scale renewable energy generation. A public input session followed to solicit comments on these recommendations, which the Panel will advance to the Climate Action Council (CAC) in April/May 2021.

After opening remarks and an outline of the meeting agenda by chair John Rhodes (NYS DPS), the Panel delved into a discussion of three of its draft recommendations. The first recommendation centered on workforce development, specifically providing education and career opportunities for disadvantaged communities and currently employed persons in fossil fuel industries to transition over into the clean energy industry.

This is "one of the most important parts of the law," remarked Panel member, Rory Christian (Concentric Consulting, LLC). He also emphasized that accelerating the approval processes for minority and women-owned enterprises must be addressed expeditiously. Regarding fossil fuel workers, James Shillito (UWUA Local 1-2, NY) suggested to conduct a survey of the current workforce especially those wishing to transition, while William Acker (New York Battery and Energy Storage Consortium) proposed that the workforce development recommendation should also include growing jobs in the entire supply chain, including energy storage.

New Yorkers for Clean Power's Betta Broad reiterated the need to scale and make job training more accessible for disadvantaged communities and veterans by ensuring that there are wrap around services and support such as childcare and transportation. She also suggested having one-stop shop hubs and better coordination among state agencies, local governments, non-profits along with the requisite public relations so that communities are aware of and access all workforce development programs. Other points of emphasis were the inclusion of strong labor standards and extending the time-period to facilitate training of communities and workers before the shutdown of fossil fuel plants.

There was also healthy discussion regarding the recommendation to assure that low-income customers and disadvantaged communities can afford and fully benefit from NY's transition to electrification. Panel member Laurie Wheelcock (Public Utility Law Project) proposed a study to control costs from the transition via energy efficiency and emphasized the need for coordination and strong communication of state programs to help low-medium income communities with energy bills. Stephan Roundtree (Vote Solar) also reiterated that state efforts must target disadvantaged communities for retrofits and renewable energy/ distributed energy resource (DER) systems that provide income and reduce energy bills in addition to help to access programs. Others

recommended the need to identify avoided costs and benefits of energy efficiency, in addition to demand response measures.

Lastly, the Panel considered strategies to accelerate the deployment large-scale renewable energy generation including transmission and distribution upgrades and new line construction. NRDC's Kit Kennedy emphasized the need for specific goals to ensure the State is on track with NY's climate law goals and for increasing renewables downstate citing the example of the Renewable Rikers project. "We have to bust a move on hitting the targets downstate where the lion share of fossil fuel plants is located," remarked Lisa Dix (Sierra Club). In addition, Panel members further reiterated the need for transmission build-out, community DER and clean energy siting as well as suggested that NYISO conduct a study to identify innovative solutions for energy delivery and options for dispatchable energy resources.

The meeting then transitioned to a public comment session. In addition to renewable energy, several stakeholders urged the Panel to consider biogas and nuclear while others called for enforceable end dates for the building and permitting, and phase out of existing oil and gas. There were also comments urging the Panel to pay attention energy efficiency gains from the maintenance of cooling equipment transmission and to prioritize reliability of grid in light of recent events in Texas. The Power Generation will hold another public input session at its next meeting on March 10. The presentation and notes from this meeting can be found here.

Transportation Advisory Panel – Thursday, February 18, 2021

At the ninth meeting of the Transportation Panel, there was a lively discussion on just transition considerations as they move towards finalizing its recommendations to reduce emissions from the transportation sector. The Panel also spent time reviewing two mitigation strategies, which centered around the transition to zero-emission vehicles (ZEVs). Recommendations will be finalized in March and presented to the Climate Action Council in April/May 2021.

Ron Epstein (NYS DOT), substituting for Chair Marie Therese Dominguez led the discussion on just transition considerations, ahead of a meeting the Panel will be having with the Just Transition Working Group on February 23. The purpose of this engagement is to get their input on strategies to be considered by the Panel in building the workforce for a clean transportation system as well as ensuring there are business opportunities for which disadvantaged communities' can benefit from in this transition.

During the discussion, Panel member Kendra Hems noted that is a training component needed for diesel technicians as we transition to low carbon fuels and electrification. Moreover, she added that the shift to cleaner vehicles may also attract younger generation in trucking industry. "Various technology companies who have not thought about the clean transportation sector will also be attracted," remarked Ron Epstein.

Kendra Hems further underscored this increasing use of technology has made the sector more technical than it once was. Given the current shortage of truck drivers and technicians, she reiterated the need for training to lure and prepare them for electrification.

"Our education system has to be changed dramatically to accommodate the shift," said Kerene Tayloe of WE ACT expressing the reason for her concern that electric vehicles (EVs) will impact the repair industry. Giving examples of poor math scores in schools and needing to re-tool solar trainees with algebra, she emphasized the need to start technical training early in the process especially from K-12, and in technical schools and community colleges. To reiterate the need for training children right now, Paul Allen (M. J. Bradley & Associates) gave an example of a NYPA-run STEM program in environmental justice communities. Kendra Hems also remarked "we are going to be asking people who have not or don't want to go to college to be able to code to go in the direction of EVs, which is a major barrier."

This led to a discourse on the timing of the transition and training. Steve Finch (AAA) highlighted that training is required to service new technology and make technicians more comfortable with electrification but they also being adept repairing internal combustion engine (ICE) vehicles. Dimitris Assanis (Stony Brook University) noted that automation and EVs may look like a disruption but in context, there are still going to be ICE vehicles on the road by 2050. Therefore, he emphasized that there is a longer time horizon to transition the job market.

With respect to public transportation, New York Public Transit Association's Bob Zerillo noted that similar to the trucking industry, jobs and training opportunities are imperative. Pori Saikia-Eapen also elaborated on engagement with high school students and ongoing workforce training on transitioning diesel to hybrid buses, energy efficiency equipment, and on resiliency being undertaken in her organization, the MTA. Paul Allen highlighted a program with US military services called Helmets to Hardhats to bring skilled workers into the power sector that could be used to attract well trained midcareer aged workers to the green transportation sector. Kerene Taylor also spoke to the need to address racial issues within unions including lack of diversity and the inability of people of color getting into them.

The Panel then transitioned to reviewing its draft recommendations on electrification and fuels, specifically, specifically (1) transitioning to 100% zero-emission (ZE) light-duty vehicle (LDV) sales and shifting to ZE medium- and heavy-duty and off-road vehicles. With respect to the components of each recommendation, unique to ZE LDVs were feebates, awareness-building and reducing ZEV sales barriers like direct to consumer sales for EV manufacturers while for ZE MHDVs, adopting California's Advanced Clean Trucks rules and Low Carbon Fuel Standard (LCFS) and establishing ZEV use requirements especially at ports and for state fleets were proposed.

During feedback, Panel members raised several issues. Elgie Holstein (NRDC) expressed concern by stakeholders that transition to EVs will raise electricity rates, however Paul Allen reiterated that growth of the rate base due to transportation electrification will lower electric rates for all customers. Meanwhile, Julie Tighe (NYLCV) suggested that the Panel be more explicit with goals to adopt California's ZEV sales rules and identify medium-term strategies to meet NY's 2030 greenhouse gas (GHG) reductions goal as well as its Zero Emissions Vehicle (ZEV) Memorandum of Understanding target to get 850,000 ZEVs on the road by 2025.

Another suggestion raised was to include airports in the fleet-based ZEV use requirements strategy and to scale/prioritize incentives for fleets at airports and ports. Nancy Young, however, noted there are limitations for these requirements for airport ground equipment/fleets. Kendra Hams (Trucking Association of New York) also reiterated that purchase requirements are challenging for minority and women-owned enterprises while financing for alternative fuels and EVs are a particular challenge for small operators. Panel members also offered other equity considerations including training in STEM and managed charging for fleets and ensuring there is fast charging infrastructure for inner city and urban communities without garages and at ports near disadvantaged communities.

The Panel will continue refining these recommendations, which will be presented to the Panel in April. Support staff notified the Panel of the fact the Cadmus Group will be providing policy briefs on alternative fuels policies and developing GHG reduction policy scenarios later in March. The Panel plans to hold a freight and healthy and equity roundtable in the near future. A public engagement session is scheduled for February 24 and the next Panel meeting takes place on March 18 at 11 a.m. Notes and presentations from this and other Transportation Panel meetings can be found here.

Energy- Intensive and Trade-Exposed Industries Panel – Wednesday, February 10, 2021

The primary focus at the seventh meeting of the Energy-Intensive and Trade-Exposed Industries (EITI) Panel was to review its draft mitigation strategies to reduce emissions from the manufacturing, mining and construction sectors. These strategies encompass financial and technical assistance, low-carbon procurement policies, research and development and demonstration, greenhouse gas reporting, and workforce development. In addition, the Panel also received a summary of the key issues raised at its public engagement session, which was held in January to garner input on these recommendations. Leakage, potential cost increases, and utilizing renewable natural gas were among the issues raised. Ongoing comments are invited by email. Presentations and meeting notes for the EITI Panel can be found here.

Energy Efficiency and Housing Advisory Panel – Wednesday, February 10, 2021

Meeting 8 of the Energy Efficiency and Housing Panel comprised of updates from the subgroups and recaps of past engagement sessions. Most notable, the meeting also featured presentations on the preliminary findings on impacts and costs of building decarbonization policies. This analysis will inform the mitigation strategies, which the Panel will advance to the Climate Action Council (CAC) for inclusion in the draft Scoping Plan to implement NY's climate law.

E3's Dan Aas and Rocky Mountain Institute's Cara Carmichael gave presentations on preliminary findings on the impacts and costs of building decarbonization policies. This analysis is part of the Carbon Neutral Buildings Roadmap for NYS. The policy scenarios it evaluates include (1) stricter building codes with zero-emission for new construction and retrofits, (2) building performance standards and required point-of-sale/lease retrofits, (3) zero-emission standards for HVAC/ appliances, and (4) achieving public building mandates via performance contracting.

Combined, the suite of policies exceeds the NY's climate law's building sector targets. Individually, Policy 3 resulted in the highest onsite emissions reductions but without energy efficiency, would have the highest incremental cost on the grid. This because it requires electrification of heating and cooking appliances across all building types. In addition, the findings revealed that while electrification achieves building decarbonization, it will also drive peak winter demands to NYS electricity system. Basic shell upgrades and demand-side interventions like flexible loads and heat pumps (including ground source) manages the impacts on the grid. The most cost-effective approach, however, is basic shell measures with electrification offering significant reductions in peak increases at no additional cost premium compared to electrification only.

The Panel then shifted to debriefs on recent engagements. State support staff gave a thematic summary of the public input session, which was held on February 4. The main themes that emerged included support for building electrification and energy efficiency, greater specificity on timelines, education and outreach, workforce development and training, affordability, and resilience of all-electric buildings, among others. The Panel also received recaps of the feedback from its engagement with property managers and from the housing roundtables that were held in November 2020.

Furthermore, the Panel was debriefed on its cross-collaboration with the Power Generation Panel. The discussion centered around peak demand impacts and load flexibility, the need for utility long-term planning, building codes, bringing along vulnerable ratepayers in the gas transition, and the evolving components of electric rates as electrification increases. A better understanding is needed to deal with hard-to-electrify buildings, grid-side versus building side investments, strategies like storage to reduce peak demand, and rate making options to address electrification including demand-based pricing across customer classes.

The meeting also included a presentation on just transition principles developed by the Just Transition Working Group to support the fair and equitable transition to a carbon neutral future. These principles are intended to guide the recommendations of the Advisory Panels. After a group discussion on these updates and the chair wrapped up with meeting with a few reminders.

The Panel will be presenting its mitigation strategies under consideration on building electrification at the CAC February 26 meeting. These mitigation recommendations will be finalized in mid-March. The presentation and meeting notes for this and previous Energy Efficiency and Housing Panel meetings can be found here.

Transportation Advisory Panel Public Listening Session – Wednesday, February 10, 2021

At its eighth meeting, the Transportation Panel recapped its draft mitigation strategies which covered electrification and fuels, public transportation, smart growth, and financing and market-based programs. The Panel also spoke with members of the Climate Justice Working Group and had an open discussion on their recommendations.

Draft Recommendations

Adam Ruder (NYSERDA) reported out that the electrification and fuels subgroup have looking at policy recommendations that intend to accelerate the transition to zero-emission vehicles (ZEV), with a focus on mandates for ZEV purchases and polices that increase adoption. For light-duty vehicles, the policies include adopting mandates for 100% ZEVs by 2035 and ZEV awareness building. While for medium-and heavy-duty and non-road vehicles, proposals included adopting California's Advanced Clean Trucks rule and purchase requirements for state and port fleets. Other strategies under consideration for sub-sectors include ZEV incentives/feebates, investing in in charging/fueling stations, and utility rate design changes. Adam Ruder noted that the subgroup received expert input from the December 10 roundtable on electrification and fuels, have been collaborating with the Power Generation and Agriculture and Forestry and Waste Panels.

NYS DOT's Ron Epstein outlined the strategies being considered by the public transportation subgroup to enhance the availability, accessibility, reliability, and affordability of transit services in unserved/underserved communities. These strategies included incentivizing transportation-oriented development supportive land use and funding policies, providing first mile/last mile connectivity through accessible and integrated infrastructure (e.g., micro-mobility, sidewalks, ride/bike-share services), deploying new technologies to make transit easier to use, and procuring new zero-emission public transportation vehicles. The subgroup also obtained input from the December 10 roundtable on transit innovation/mobility and plans to have inter-working

session with the smart growth subgroup on February 12 as well as review recommendations of other Advisory Panels.

The goal of the smart growth subgroup is to develop recommendations that align smart growth policies and outcomes with expanded public transportation services. These include widespread public education, connecting public transit officials with planning and community development professionals to incorporate public transportation into land use planning, and expanding regional governance approaches to achieve public transportation-oriented development. In relation to first mile/last mile connectivity, the subgroup proposes providing incentives that enhance access and proximity to public transportation and voluntary programs and physical accommodations that foster employee access to transit, among others. Paul Beyer (NYS Department of State) highlighted that, in addition to the joint meeting with the public transportation subgroup, the smart growth subgroup will begin to fuse relevant Land Use and Local Government recommendations with the Panel's goals and strategies.

Last up was Jared Synder (NYSDEC) reported out for the financing and market-based programs subgroups. He reiterated that the goal of the subgroup was to identify mechanisms that would support policies identified by the other subgroups. The mechanisms would include tools to finance the upfront costs of ZEVs and market approaches that facilitate the transition to ZEVs, support clean fuels, and expand public transit with a particular focus on providing benefits to disadvantaged communities. Synder made specific mention to cap-and-invest policies, the low carbon fuel standard (LCFS), vehicle mile travelled policies. The subgroup received expert input from the Panel's January 13 roundtable on market-based policies and financing and support with the evaluation of financial resources needed to support electrification including from private and public sources.

Equity Considerations

Members of the Climate Justice Working Group had the opportunity to provide input on these recommendations. In light of ensuring that communities can financially benefit and have access to jobs in the transition, Rahwa Rahwa Ghirmatzion (PUSH Buffalo) offered the proposal of community ownership of EV charging infrastructure. She noted initiatives for training technicians and electricians to install and maintain charging stations as well as community microgrids to power them.

Adam Ruder offered other examples and ideas coming out of communities that the Panel could consider replicating including a car/bike program in Buffalo. He also mentioned an initiative under consideration in NYC about forming cooperatives to become a contractor for EV school buses, and another where NYSERDA has been working with a company to legitimize and utilize dollar vans to supplement the transit system in underserved communities.

Another suggestion Rahwa Ghirmatzion put forward to the Panel was to look into quantifying the jobs that will be available in the transition to EVs and the build-out of charging infrastructure. She remarked, "We want there to be enough trained for the jobs that will be available out there so that we are not over promising our communities." Jared Synder noted that the Panel has not that evaluation yet. Though the Just Transition is conducting a jobs report, he said that the Panel can look into this more granular request. Panel member, Paul Allen (M. J. Bradley & Associates) highlighted that there have been studies done on the EV supply chain and manufacturing jobs in Texas and Penn by AEE that the Panel can learn from.

With respect to expanding public transportation, Rahwa Ghirmatzion spoke to the inequities that exist in rural communities with respect to accessibility and enquired about the jobs creation and electrifying public fleets. Commissioner Dominguez assured her that the Panel has been focused on this Ghirmatzion further advised the Panel to ensure the transition to electric mass transit fleets does not raise rates especially for LMI communities. Wrapping up, Jared Synder highlighted the importance of the Panel continuing this equity conversation.

Open Panel Discussion

The meeting then transitioned to an open discussion on the draft recommendations. AAA Western & Central New York's Steve Finch shared his concerns regarding the impacts of these recommendations could have on everyday consumers. He also expressed concerns regarding the transition to EVs, particularly what would be needed to get to 2035, what happens when EVs age, and the associated infrastructure needs. "We need to think about the long-term effects of the transition," said Finch.

Julie Tighe (NYLCV) reiterated the need to look at the long-term goals and work backwards, identifying barriers and cost issues to getting there. She also highlighted that equity needs to be placed at the center of all the Panel's recommendations, specifically job and wealth creation, promoting a secondary market for EVs, and providing rebates targeted to LMI families. With respect to medium-and heavy-duty vehicles (MHDVs), Julie advocated for the LCFS to achieve 100% ZEVs by 2040, increasing access to mass transit, and moving towards ZEV buses, and micro-mobility.

Elgie Holstein (Environmental Defense Fund) also raised the issue of financing for EV trucks. He recommended using revolving funds, that factors in their lower total cost of ownership and bring down the upfront costs of EV trucks. In response, Kendra Hams (Trucking Association of New York) noted that the price differential between diesel and electric trucks is \$50,000 but highlighted this will go down with increased adoption. She also noted that smaller carriers need resources to incentivize adoption. Holstein also suggested providing financial support for school buses as well as smaller/limited range electric MHDV fleets at ports and airports to help reduce emissions and bring down

costs. He also asked support staff for information on the NY Truck Voucher Incentive program and to have further discussions on financing.

Paul Allen pointed out the needed to establish ZEV mandates like California to serve as a forcing function on the market. He reiterated the importance of thinking of the timeline of policy interventions in connection with the power grid noting the potential to match electrification with a green grid. Moreover, what should be encouraged through private funding versus public. Finally, he expressed the need for strong planning that brings all relevant stakeholders like utilities and school districts together. Dimitris Assanis (Stony Brook University) cautioned that reaching 100% ZEV sales will not be an instantaneous process. He emphasized that low carbon fuels like hydrogen, methanol, and biofuels are necessary to reduce emissions from internal combustion engine vehicles that would still be on road. Nancy Young (Airlines for America) added that municipal and other waste products can also be channeled into alternative fuels to reduce emissions and the impacts of these waste streams.

As we move towards price parity for light-duty vehicles, Albert Gore III (Tesla) noted the need to close the gap for underserved communities. He advocated that more work be done to develop policies to reform electric rate design and building codes in order to expand charging infrastructure especially at multi-unit dwellings and in rural and transit deserts. Nick Sifuentes (Tri-State Transportation Campaign) reemphasized market solutions to drive investment in transit like the Transportation Climate Initiative and vehicle miles travelled taxes.

At the next meeting, which takes place on February 18, the Panel will focus on public transit and smart growth recommendations. Subgroups will work with state support staff to fill out the template for recommendations provided by the CAC. The Panel intends to finalize these recommendations by March 18 and will present them to the CAC in mid-April. Chair Dominguez also informed the Panel that an additional roundtable on freight is being organized and that there will be a public engagement session on February 24. Written comments can be sent by via email. Meeting notes and presentation slides on this and other Panel meetings can be found here.

Waste Advisory Panel – Tuesday, February 9, 2021

The sixth meeting of the Waste Panel on February 9 was dedicated to subgroup updates followed by a public engagement session. The purpose of the public forum was to gain input policy recommendations the Panel can consider as it develops its recommendations to reduce greenhouse gas (GHG) emissions from the waste sector. These recommendations will be finalized in March and presented to the Climate Action Council (CAC) in April 2020.

Subpanel leads gave an overview of the progress made to date on developing mitigation strategies. Jane Gaiwani (NYC DEP) reported out for the wastewater

resource recovery facilities subgroup. She noted that the subgroup had not met since last Panel meeting but recapped the overarching strategies under consideration. These include reducing fugitive emissions from leaks and fares, improving anaerobic digestion (AD) facilities, and supporting resource recovery and organics diversion, especially biosolids and food waste from landfills. When asked about any additional needs by the chair, Deputy Commissioner Martin Brand (NYSDEC), Gajwani expressed the desire to nail down GHG reduction estimates. Support staff noted that preliminary work has begun to build up the current GHG inventory but have yet to quantify emissions for wastewater.

Resa Domino (Resource Recycling Systems) informed the Panel that the material management subgroup participated in an organics discussion on February 5. She then gave an overview of the recommendations under consideration including expanding requirements for food scraps and disposal bans, increasing residential access to composting, funding for composting and organics infrastructure, developing statewide organics study, and enhancing existing recycling programs and policies (e.g., extended producer responsibility (EPR), mandated source separation). Domino also expressed the quantification needs as well as greater coordination with respect to organics.

The organics diversion and landfill subgroup have been part of combined discussions last week on biofuels, measurements, and the bioeconomy, which occurred last week. Lauren Toretta (CH4 Biogas) reminded the Panel that the subgroup has been focused on the use of best-in-class technologies and financial incentives for organic waste diversion from landfills. The subgroup also discussed co-location of additional facilities and establishment of performance standards at existing facilities. Toretta noted that more detail and cross-collaboration to develop these strategies are needed in addition to data on the state of organic waste to help prioritize strategies. John Casella (Casella Waste Systems) also added the subgroup required estimates of organics diversion and how it will impact existing facilities.

Tok Oyewole (NYC EJA) gave an overview of the mitigation strategies under development by the local scale and climate justice subgroup. These included waste reduction, centralization of donations, curbing production of non-recyclables, waste reuse mandates (municipal recyclables collection), converting transfer stations into well-run composting and processing sites, developing a plan for ending organics to landfills or incinerators, understanding the limited ways that renewable natural gas (RNG), expanding recycling in marginalized communities, encouraging green waste management jobs, and developing sustainable blueprints for local organizations. The chair charged the subgroup to look into strategies needed to scale model groups and programs such as training, local laws, logistical needs, and resource materials.

Martin Brand wrapped up updates encouraging subgroups to keep collaborating and refining recommendations. The subgroups will input and shape these recommendations utilizing the template provided by the CAC. The chair then segued into the public input

segment of the meeting. In his opening remarks, he thanked the participants for their interest and comments and gave a brief outline of the Panel's recommendation topics.

During the public input session, stakeholders raised several concerns including the disposal of refrigerants and lithium batteries from solar and wind with energy storage into landfills. They encouraged the Panel to look into incentivizing collection of refrigerants before disposal and ensure clean energy developers recycle batteries. Mike Ewall of the Energy Justice Network highlighted that in addition to methane, carbon emissions should be addressed particularly from trash and sludge incineration. He also suggested that the Panel to comprehensively look at anerobic digestion (AD) and utilizing a zero-waste hierarchy for landfills.

A representative of the RNG coalition advocated for the production of RNG from AD noting that it is a circular process because "the carbon produced is biogenic so there is a climate benefit." He also encouraged the Panel to promote the use of RNG in natural gas applications and end-uses especially those not suitable for electrification. Phil Vos reiterated that RNG is net carbon negative and is needed to meet the goals of NY's climate law. In contrast, other commenters called for no incineration or biofuels because of the concern for co-pollutants.

NYC resident, Joanna Smith reiterated the need for street depots for waste collection in high density areas to reduce trucking and increase sidewalk access. She also called for Panel to consider electrifying municipal and waste fleets and encouraging the use of electric vehicles and cargo bikes food hauling and composting like the BK ROT in Brooklyn. Another stakeholder also proposed marine and train hauling waste over long distances. Expressing concern for composting efforts in the state, another stakeholder proposed robust educational programs for municipalities and increasing transfer stations to allow residents to collect compost making composting programs circular.

There were also many comments regarding recycling. Stakeholders advocated for the passage of the EPR bill (S.1185), while other like Linda Leone of Recycle Fiber Procurement, West Rock expressed concern over the inclusion of paper in EPR as it would disrupt an already successful market, add costs NY businesses and have limited environmental benefits. She reiterated that public education should be prioritized. Jane Seldon of 350 NYC noted that local scale recycling should be expanded. Commenter Sue Fassler challenged the Panel to use its platform to challenge consumption culture and encourage source reduction and reuse.

Another suggestion that the Panel received was to utilize net GHG accounting – a globally accepted method and is crucial in determining the best methods for emissions reductions. Chair Brand closed the session thanking the public for their various comments. Panel member, Dereth Glance (Onondaga County Resource Recovery Agency) encouraged refrigeration experts to submit comments with respect to workforce and market development. The next meeting of the Panel, which occurs on February 22,

will focus on equity considerations. Meeting notes and presentations from all Waste Panel meetings can be found here.

Land Use and Local Government Panel – Friday, February 5, 2021

The Carbon Sequestration Subgroup of the Land Use and Local Government Panel, in collaboration with the Agriculture and Forestry Panel, held a learning session on February 5. The subgroup is focused on developing climate mitigation and adaptation recommendations around conservation and restoration of priority natural areas, mainly coastal systems, freshwater wetlands, and forests. This meeting specifically looked at the carbon sequestration potential of forests and trees in NYS. Members of the Agriculture and Forestry Panel joined in to identify cross-panel synergies and priorities.

Dr. Andrew Reinmann (CUNY) presented research on forest carbon accounting and sequestration opportunities to support climate mitigation goals. NYS, which is 65% forested, takes up ~7 teragrams (Tg) of carbon every year offsetting emissions equivalent to 5.8 million cars. Dr. Reinmann noted that a major challenge to carbon sequestration of our forests is pervasive fragmentation. Fragmenting forests can reduce predictability of carbon sequestration as the climate changes. Though not encouraging the fragmentation as a management strategy due to its negative effects on biodiversity, Dr. Reinmann there are co-benefits of increasing canopy cover and carbon sequestration from fragmented landscapes like urban forests such as cooling and carbon dioxide mitigation.

The next presentation was given by The Nature Conservancy's Dr. Susan Cook-Patton. She outlined potential options for restoring forest cover especially in places that historically supported forests. She emphasized that restoration is a promising natural climate solution. Dr. Cook-Patton developed a GIS decision tool to determine the most ecologically appropriate restoration options, which include natural lands, post-fire restocking, agricultural lands, frequently flooded landscapes, riparian buffers, urban open space, and biodiversity corridors. Her research has found that there are up to 3.96 million acres of opportunity in NY to restore forest cover for climate mitigation. Reforesting areas with ~2.1 billion trees could capture 13.17 million tonnes of carbon dioxide per year, which is equivalent to removing 2.85 million cars on the road.

Presenters received questions regarding the sequestration potential of green corridors. In response, Dr. Reinmann noted that corridors have the same effects as forests but have to be many meters wide and/or long and target areas that are at least 40 years old to achieve meaningful sequestration. One Panel member asked about the carbon sequestration potential of soil in comparison to trees to which Dr. Cook-Patton remarked "not nearly as much." She also reiterated that protecting and restoring NYS forested wetlands is a one climate solution in response to question from a Panel member. "Destroying wetlands releases all the carbon that is held there" remarked Dr. Cook-Patton.

The carbon sequestration subgroup meets next week to draft recommendations which will be presented at the wider Land Use and Local Government Panel meeting on February 22. Stakeholders can provide public input on these recommendations by email.

Energy Efficiency and Housing Panel Public Meeting - Thursday, February 4, 2021

On February 4, the Energy Efficiency and Housing Panel held a public engagement meeting to get input on key recommendations to decarbonize the building sector. The sector accounts for a quarter of economy-wide greenhouse gas emissions in New York State. Over 300 persons were in attendance. Stakeholders provided feedback on the Panel's strategies which cover energy efficiency and conservation, building electrification and low carbon fuels, and decarbonizing electricity supply.

After opening remarks and introductions led by the Panel's Chair, Commissioner RuthAnne Visnauskas (New York State Homes and Community Renewal), NYSERDA's Vanessa Ulmer give a brief overview of NY's climate law and the scope of the Panel. She then went over the preliminary draft recommendations under consideration. These included regulations to phase out fossil fuel use in buildings, energy benchmarking, disclosure, and performance, workforce development, low-cost financing and incentives for energy efficiency and electrification, and transitioning from gas to clean energy. Other policy considerations include federal funding support, resilience and adaptation, utility rate design, consumer protections, support for living wage jobs, and an economywide carbon fee and investment approach.

The public input portion of the meeting was facilitated by Nisha Baliga and Isella Ramirez of Hester Street. A common thread in the comments was the need for dates certain for the Panel's recommendations to ban fossil fuel equipment in buildings in new construction as well as on gas/oil replacements for appliances and space and water heating in existing single and multifamily homes, and commercial buildings. Stakeholders like Jessica Azulay from Alliance for a Green Economy noted that greater specificity is required for the market to plan in an orderly manner and solve any barriers or unintended consequences from transitioning to building electrification.

Another emerging theme was the requirement for education and outreach. Many remarked on the lack of public awareness about beneficial electrification and more specifically of technologies that are available. One specific technology that was promoted was heat pumps. Though there were varying views on geothermal vs airsource heat pumps, there was broad agreement for the need for resources and incentives to scale and increase adoption of this technology in the state. John Ciovacco (Aztech Geothermal) noted that heat pumps are currently competing with fossil fuel solutions with challenging economics and suggested low-cost financing options like NYSERDA's loan loss reserve program.

Others also called for workforce development and training opportunities for technicians on the installation of low carbon technologies like HVAC systems, heat pumps and climate friendly refrigerants. Network for Sustainable Tomorrow's Adam Flint expressed specific concern that K-12 and SUNY represented to offer proposals for workforce development and recommended urgent engagement with the Just Transition Working Group.

Chris Jenson, a code enforcement officer raised concern over the Panel's recommendations for a very efficient energy code and stricter state appliance efficiency standards for products. He noted that these proposals would burden local municipalities, which have limited resources for enforcement. Instead, he suggested that the best solution to drive energy efficiency improvements was to offer incentives for building electrification and energy efficiency

Equity and affordability were considerations that were frequently mentioned. One commenter noted how useful PUSH Buffalo's Warm and Dry program in making her home healthier and therefore, reiterated the need for energy efficiency and building retrofits to make buildings sustainable for years to come. These retrofits should be affordable remarked commenter, Lisa Harrison whereas Elizabeth Marshall highlighted the need to address basic housing needs such as inadequate heating, for example.

A NYC resident reiterated that loans or third-party ownership schemes are required especially for low-medium income (LMI) communities to get adopt energy efficient/low-carbon technologies. While a community leader emphasized the importance of public outreach and getting resources to LMI communities to encourage the transition to these technologies. Through electrification and energy efficiency efforts, SaLisa Berrien (COI Energy) highlighted that building energy waste could be repurposed to support LMI and disadvantaged communities. Some advocated for electrification and heat pump pilots to be executed in these communities. There was also strong support for the Panel's recommendations on good, living wage jobs and streamlining energy efficiency program applications for LMI communities.

Other stakeholders asked the Panel to consider building resiliency against extreme weather events and the need for large scale renewables as we move towards electrification. In addition, garnering input from builders, inclusion of passive house building design in the energy/building codes, supporting the proposed legislation like the Low Embodied Carbon Concrete Leadership Act and Climate and Community Investment Act, updating building code to support the utilization of low global warming potential refrigerants, and replacing heating oil with biodiesel to increase efficiencies and reduce costs and health impacts. Several offered innovative financing solutions such as ESG impact investing and a market-based pay-for-performance approach, monetizing non-energy benefits, and bundling incentives for electrification and energy efficiency.

Stakeholders are encouraged to continue providing written comments via email by February 18.

This input will inform the Panel's draft recommendations, which are due to the Climate Action Council in April 2021. The Energy Efficiency and Housing Panel reconvenes on February 10. Meeting notes and presentation slides for all Energy Efficiency and Housing Panel meetings can be found here.

Agriculture and Forestry Advisory Panel - Thursday, February 4, 202

By Jeff Jones

The Agriculture and Forestry Advisory Panel (AFAP) met on February 4. The agenda featured a report by DEC Environmental Justice Director Rosa Mendez on the work of the Climate Justice Working Group. Mendez and other members of the CJWG have been meeting with various Advisory Panel's to update them on developing policy recommendations to identify disadvantages, frontline communities as required by the Climate Leadership and Community Protection Act (CLCPA). See CJWG for policy updates. The AFAP meeting then heard a report from Maureen Leddy (NYSERDA) on the development of the template that will be used to report the Panel's recommendations to the Climate Action Council. This was followed by reports from two of the Panel's subgroups. The session ended with public comments.

The two subgroups are divided between agricultural emissions reductions and sequestration. Topics discussed so far are forest conservation, farmland conservation and non-acquisition options.

Leddy's presentation focused on potential substitution of bio-based products for fossil-based fuels, including the use of wood products, bioplastics, and the possibilities for a low-carbon marketplace in New York. Bioenergy and biorefining, including strategies for agriculture-industry emission's reduction opportunities and the use of bio-feedstocks to replace petrochemicals and pharmaceuticals, and research and development opportunities to advance cellulosic nanotechnology.

The themes of the two subgroups centered on the role of sequestering carbon as key to reaching CLCPA goals. Attention was paid to protecting, even expanding forested state lands, including reform of the 480a program, the state's primary vehicle for maintaining privately held working forest lands. DEC Lands and Forests staff member Peter Innes said, "Increasing forests will increase carbon sequestration." Similarly, programs that seek to preserve farmland are also being reviewed.

The panel will meet again on March 2 and 16 as it works to meet its recommendation deadlines. Public comments are invited at agriculture.forestry@agriculture.ny.gov.

Power Generation Advisory Panel – Wednesday, February 3, 2021

The Power Generation Panel held an evening public forum on February 3. The purpose of the session was garner input on key considerations the Panel should consider as they develop recommendations to reduce emissions from the electricity sector in accordance with NY'S climate law, the Climate Action and Community Protection Act (CLCPA). These recommendations are due to the Climate Action Council April/May 2021.

Before welcoming input, Chair John Rhodes (PSC) gave a brief overview of the law and the fundamental considerations of the Panel as they develop its recommendations. These considerations include achieving a clean, reliable, affordable, and equitable electricity system in the clean energy transition. Chair Rhodes then posed guiding questions to frame stakeholders' feedback including potential recommendations, equity considerations, and other pressing issues that the Panel should consider in its recommendations.

There was strong support for nuclear energy in the public comment session. Proponents of nuclear urged the Panel to consider nuclear in the future energy mix reiterating that building out renewable energy would not be enough to achieve the carbon reductions goals of the CLCPA. They highlighted benefits of the energy source including energy output and maintaining reliability while also challenging assumptions of its safety. In particular, Carl Perez (Elysium Industries) recommended that NYSERDA fund research in nuclear innovation. A number of stakeholders requested the reconsideration of the closure of Indian Point nuclear plants as it would promote their replacement with fossil fuels plants leading to increased emissions. They also indicated that the Panel should include nuclear experts who are willing to talk about the critical role of nuclear.

Other stakeholders like NY resident Miles McManus encouraged to move Panel faster with respect to planning and approach in light of the urgency of the climate crisis. He was also joined by other stakeholders calling for the Panel to not consider 'false solutions' referencing green hydrogen and biofuels. ACE NY's Kyle Rabin emphasized the need for renewable energy to break ground to meet the goals of electrification and the CLCPA's 70% clean energy mandate by 2030. He noted that solar and wind developers need permitting to stay on schedule, standardized taxation guiding municipalities, long-term contracts, and streamlined interconnection. Other policy considerations Mr. Rabin proposed included state investment in transmission and distributed energy resources, carbon pricing, identifying renewable energy zones, and looking into the last 10% of dispatchable resources required to meet the CLCPA's goal of having 100% zero emissions by 2040.

Another emergent theme is a focus on equity. Adam Flint (Network for a Sustainable Future) highlighted the need to offer higher discounts (e.g., 20%) in order to drive

environmental justice (EJ) communities to participate in community shared solar. He also spoke to making community ownership and control easier as well as making the value stack thicker to make jobs in solar more attractive. Mr. Flint called for increasing NYSERDA incentive programs for low-medium income (LMI) customers and promoted the Climate and Community Investment Act as a means to get funding. David Gower, a community solar developer, suggested that community solar and community choice aggregation can be merged allowing for entire communities to be their own administrator and reap the benefits.

Another commenter reiterated that energy has been unaffordable for LMI persons and seniors in NY and therefore, this needs to be prioritized in the transition. He also suggested developing plans for jobs and tax loss compensation when fossil fuel plants shut down. Fossil Free Tompkins' Irene Weiser expressed concern with behind-themeter (BTM) generation utilizing gas as well as combined heat and power applications. She noted that this loophole in NOx regulations allows power plants to continue burning polluting fuels for many years to come posing threats to EJ communities and skirts the CLCPA goals.

Other comments centered on regional energy planning and looking into other clean technologies including hydrogen fuel cells and energy storage for intermittent sources. The Panel will also hold public input sessions following its regularly scheduled meetings on February 12 and 22. Stakeholders can also submit comments via email or by calling toll-free at 1-833-498-2082. The presentation and notes for this and other Power Generation Panel meetings can be found here.

Just Transition Working Group – Wednesday, February 3, 2021

By Jeff Jones

This meeting of the Just Transition Working Group began with a summary presentation on NYSERDA's recently released New York Clean Energy Industry Report. This quantification of current clean energy jobs formed the framework for discussion and presentations that included one by Amanda Kogut-Ro on nontraditional employment opportunities for women.

Alan Marzullo, business manager of Syracuse IBEW Local 43 described his union's apprenticeship programs. Collaboration with area colleges and a review of existing and model degree programs that train people for new careers was discussed. Eliot Cresswell of the Workforce Development Institute noted that training for many of the skills that are needed for new industries such as offshore wind already exist and many workers will be able to apply what they already know in emerging settings.

A public comment period followed with numerous points made. One speaker pointed to the importance of family supporting salaries that are at least equivalent of what energy workers are making today. Another advocated for the proposed Climate and Community Investment Act as a potential source of funding for integrated job creation, study and education.

The next session of the JTWG is scheduled for February 23rd at 9:00am. Public comments to the Working Group can be submitted via email.

Land Use and Local Government Advisory Panel – Monday, February 1, 2021

By Jeff Jones

The 6th meeting of the Land Use and Local Government Advisory Pavel took place February 1st. The meeting featured a report on the panel's stakeholders survey, reports from both the Carbon Sequestration and the Adaptation and Resilience subgroups and the first round of the panel's proposed recommendations to the Climate Action Council.

Regarding the survey, Panel Chair Sarah Crowell noted that comments are still being collected via email. In fact, due to its just getting underway, the Adaptation and Resiliency subgroup expects to make its recommendations directly to the Climate Action Council in May. There will also be a public comment session scheduled in April.

Topping the list of the Stakeholder Input Survey, and a major theme that emerged from all elements of the session, was the need for enhanced state and regional technical assistance and tools. Panel members agreed that the creation of an effective, accessible dashboard (website) that can be used by local governments (county, town, village) to evaluate the effectiveness of various existing and proposed state programs that will be needed to meet CLCPA goals. A second theme of the session concerned overlaps with other advisory panels and the need to strive to integrate proposal that will be made to the CAC. These discussions focused on the Forest and Agriculture Advisory Panel, primarily from the perspective of carbon sequestration, and Energy Efficiency and Housing on the need to set long-term goals quickly.

A number of proposed recommendations concerning both land use and clean energy looked at expanding existing state programs that are consistent with smart growth and climate smart planning programs. These include Climate Smart Communities and Clean Energy Communities. Updating mandates for the state's Regional Economic Development Council's to have more of a sustainability focus also emerged as a likely recommendation. Kevin Law, executive director of the Long Island Association, and cochair of the Long Island REDC commented that upgrading the vision of the regional economic bodies was "very doable."

The next meeting of the Panel will take place February 22nd, with its 8th meeting scheduled for March 8th.