

MINUTES OF THE CLIMATE ACTION COUNCIL MEETING
HELD ON FEBRUARY 26, 2021

Pursuant to Notice and Agenda, a copy of which is annexed hereto, a meeting of the Climate Action Council (“Council”) was convened at 3:00 p.m. on Friday, February 26, 2021. The following Members attended:

Council Co-Chairs

- Doreen Harris, Acting President and CEO, New York State Energy Research and Development Authority
- Basil Seggos, Commissioner, New York State Department of Environmental Conservation

Council Members

- Richard Ball, Commissioner, New York State Department of Agriculture and Markets
- Donna L. DeCarolis, President, National Fuel Gas Distribution Corporation
- Marie Therese Dominguez, Commissioner, New York State Department of Transportation
- Gavin Donohue, President and CEO, Independent Power Producers of New York
- Dennis Elsenbeck, Head of Energy and Sustainability, Phillips Lytle LLP
- Thomas Falcone, CEO, Long Island Power Authority
- Eric Gertler, Acting Commissioner and President and CEO-designate of Empire State Development
- Rose Harvey, Senior Fellow for Parks and Open Space, Regional Plan Association
- Bob Howarth, Professor, Ecology and Environmental Biology at Cornell University
- Peter Iwanowicz, Executive Director, Environmental Advocates of NY
- Jim Malatras, Chancellor, State University of New York
- Gil C. Quiniones, President and Chief Executive Officer, New York Power Authority
- Roberta Reardon, Commissioner, New York State Department of Labor
- Anne Reynolds, Executive Director, Alliance for Clean Energy New York
- John B. Rhodes, Chair, New York State Public Service Commission
- Rossana Rosado, Secretary of State, New York State Department of State (Kisha Santiago-Martinez, Designee)
- Raya Salter
- Paul Shepson, Dean, School of Marine and Atmospheric Sciences at Stony Brook University
- RuthAnne Visnauskas, Commissioner and CEO, New York State Homes and Community Renewal
- Howard A. Zucker, Commissioner, New York State Department of Health (Henry Spliethoff, Designee)

Also present were various State agency staff and members of the public.

Ms. Harris and Mr. Seggos, Co-Chairs of the Council, welcomed all in attendance. A quorum was present throughout the meeting.

Consideration of the Minutes of the January 19, 2021 Meeting

The next item on the Agenda was to advance the minutes from the January 19, 2021 meeting. Upon hearing no changes or objections, upon motion duly made and seconded, the minutes were adopted. Co-Chair Harris stated that the minutes will be posted to the Council website.

Co-Chair Remarks and Reflections

Co-Chair Seggos began by highlighting the Climate Resilient Farming Grant Program, designed to help dozens of farms across the State to reduce emissions and prepare for climate-related extreme weather events. The \$4 million in Environmental Protection Fund support is expected to fund projects that reduce greenhouse gases (GHG) by an estimated 90,000 metric tons of carbon dioxide equivalent per year, the equivalent of eliminating nearly 20,000 vehicles from the road.

Co-Chair Harris updated the Council on three efforts that will further enable local, clean energy, and climate progress. The efforts are:

- NYPA's Community Solar and Storage Program for Local Governments that will assist local governments and State agencies in building at least 40 distributed solar systems, part of NYPA's 2025 community solar target of 75 MW of renewable capacity, including 15 MW of paired battery storage;
- NYSERDA's Clean Energy Communities Leadership Round, a \$17 million funding effort with expanded high-impact actions and additional support for projects in disadvantaged communities; and
- NYSERDA's Community Heat Pump Systems Pilot Program that will make up to \$15 million available to pilot the use of community thermal systems to reduce buildings' GHG emissions.

With regard to the NYPA effort, CEO Gil Quiniones stated that the effort is designed to leverage State and local government buildings and under-used land holdings for distributed or community solar plus energy storage systems. He cited an example at JFK Airport, through its partnership with the Port Authority of New York and New Jersey, that will provide energy needs for the airport, as well as

surrounding communities. The goal is to provide renewable energy access at a cost-effective rate that can be replicated and scaled-up, Statewide.

Co-Chair Harris reported on New York's early learnings from the Texas power outages, including planning considerations, grid design, electricity markets, consumer impacts, resilience, and other considerations. From a planning perspective, she noted that New York generators plan for weather extremes. From an electric grid perspective, she stated that New York has ties to external systems that allow for the import of power from neighboring control areas in times of need. In addition, New York's energy market is robustly designed and managed differently, including with reserve margin requirements and penalties for failure to deliver. She noted that the New York markets, regulations, system structures, and hedging would prevent the worst of extreme pricing and the impacts to consumers under similar conditions. The New York Independent System Operator (NYISO) has extensively studied electricity resilience, not only through its own climate study, but also through new reliability and resilience rules under consideration. Overall, Co-Chair Harris stated that the Texas experience will continue to be reviewed to determine what, if any, actions New York might consider in improving the flexibility or resiliency of its electric grid, given the need for continued innovation, grid technology, and systems management to meet the Climate Act requirements.

Electrification Presentation

Transportation Advisory Panel

Co-chair Harris introduced a panel presentation focusing on the electrification of several sectors of New York's economy. Commissioner Dominguez, Chair, Transportation Advisory Panel, began the presentation by describing results of preliminary research on transportation sector electrification that is informing the development of Transportation Advisory Panel recommendations. Preliminary research suggests that the transportation sector will need to reduce emissions more than 85% by mid-century, given the sector's significant contributions to GHG emissions. Transition from fossil fuels to zero-emission vehicles and the overall electrification of the transportation sector are key to achieving the emission limits and realizing economic and public health benefits. However, the goals will not be achieved by electrification alone and it is part of a suite of policies that includes public transportation use, smart growth strategies, and transitional fuels.

Adam Ruder, Assistant Director, Clean Transportation, NYSERDA, provided a summary of the Cadmus technical analysis for transportation electrification which included information on the current total cost of ownership for electric vehicles (EVs), including light, medium and heavy-duty vehicles, as well as sales projections and the rate of installation for EV charging stations. Currently, medium and heavy-duty EV sales lag behind light-duty sales and that is expected to continue absent further action. Mr. Ruder also explained that the electric grid will need to be appropriately managed to accommodate the increase of EVs and EV charging applications while managing the need for significant upgrades. Time-of-use rates, site-level demand management, and smart charging are strategies that can address grid management by shifting charging away from system peak hours, thus reducing the need for grid upgrades.

Mr. Ruder presented the results of several potential New York State scenarios developed by Cadmus to evaluate zero-emission vehicle (ZEV) policies through regulation, modeled after those implemented by California. This analysis also informs the need for supporting transportation sector policies to achieve the Climate Act goals, such as for increased charging stations.

Jared Snyder, Deputy Commissioner for Climate, Air, and Energy, NYS Department of Environmental Conservation, provided information on the transportation strategies under consideration. Mr. Snyder stated that the analysis presented shows that the electrification of the transportation sector can result in a win-win situation, achieving significant reductions in GHG emissions and co-pollutants, while also saving individual consumers and businesses money as prices decline over time. Policies being considered by the Transportation Advisory Panel include:

- a requirement for passenger vehicle sales to be ZEV-only by 2035, which could be adopted by New York in conjunction with California under the provisions of the Clean Air Act;
- a ZEV sales requirement for trucks and buses, ramping up to 100 percent of sales by 2045;
- incentives and feebates until price parity is achieved, which can be supplemented with financing strategies;
- charging station investments, optimized charging and EV-ready building codes for which the Transportation Advisory Panel is working with other CAC Advisory Panels; and
- Climate Justice strategies for environmental justice communities that tend to be more adversely affected by air pollution from vehicle (particularly truck) traffic, including potentially higher incentives for new and used EVs for low-to-moderate income purchasers, and green zone strategies.

Energy Efficiency and Housing Advisory Panel

Co-Chair Harris introduced Vanessa Ulmer, Senior Advisor, Policy Development, NYSERDA, to present information regarding the technical analysis underway on behalf of the Energy Efficiency and Housing Advisory Panel. Ms. Ulmer began by defining building electrification as switching from burning fossil fuels to increasingly clean electricity for space and water heating, cooking and other energy end-uses. Ms. Ulmer stated that the E3 Pathways Report attributes onsite fossil fuel combustion as direct emissions from the buildings sector and electricity as indirect emissions accounted for in the electricity generation sector. Direct emissions in buildings are dominated by fossil-fuel combustion (mostly natural gas) for space heating and hot water, and therefore, electrification of space and water heating drive building sector decarbonization. She also stated that the emissions accounting in this analysis will be refined under the Climate Act accounting framework, particularly to account for methane and upstream emissions associated with fossil fuels. In order to meet the goals and requirements of the Climate Act, the analysis shows that all fossil fuel burning in nearly all buildings will need to be curbed by mid-century.

Ms. Ulmer presented the Advisory Panel's three pillars of deep building decarbonization which include: energy efficiency and conservation; building electrification and low-carbon fuels; and decarbonizing electricity supply, all with emphasis on equity factors. When presenting the analysis, Ms. Ulmer explained the technologies that are currently commercially available; however, there is work to do to develop and deploy solutions that work for some harder-to-electrify building typologies (such as super tall buildings and those with steam or district steam heat, etc.). She also presented key areas for research, development and demonstrations.

Preliminary findings of the ongoing analysis show that key factors can bring the lifecycle cost of all-electric, efficiency buildings to parity with natural gas heating and conventional building systems. However, multiple strategies will be required to reduce the cost premium, including addressing both technology first costs and energy and operational lifecycle costs. Findings also show that electrification will add new winter demands to New York's electricity system and the magnitude of increase in electric grid peak will depend on the measures implemented within buildings – which, in practice, is expected to be a mix of highly-efficient equipment and building shell measures. Overall, additional analysis is needed to further refine the costs and benefits of grid-sector expansion and building sector efficiency and behind the meter flexibility.

Janet Joseph, Senior Vice President, Strategy and Market Development, NYSERDA, and Co-Chair of the Energy Efficiency and Housing Advisory Panel, presented information on the strategies under consideration by the Advisory Panel. The recommendations to advance building electrification account for practicality, equity and affordability; minimizing costs; expanding solutions; and identifying both energy and non-energy benefits. Additional considerations include workforce development and consumer education.

Ms. Joseph presented the key mitigation strategies as including potential regulations to phase out fossil fuel use in buildings, improve energy efficiency, and enhance building resiliency. This could be achieved through more efficient State Energy codes, particularly for solar and grid interactivity of electric appliances, phased electrification for construction, and equipment replacements. Planning for a managed, phased, and just transition could include undertaking a planning study to examine regulatory, legislative and other needed policy changes; development of a comprehensive equity strategy, including for the gas industry workforce; analysis of grid and building readiness; setting standards for “clean” equipment; and potential new approaches to utility investments in natural gas delivery infrastructure.

Ms. Joseph presented possible enabling initiatives, such as low-cost financing and incentives for energy efficiency, electrification, and related improvements in buildings, citing examples of:

- potential mechanisms for residential, commercial, and institutional building owners to gain access to low-cost capital to fund decarbonization upgrades;
- potential incentives that speed market uptake and help to transform the market, with a focus on enabling uptake in low-to-moderate income, disadvantaged communities; and affordable housing sectors;
- workforce development, such as scaling up training, building decarbonization curricula and career services and examining opportunities for continuing education and licensing;
- consumer education and technical assistance, from high-level messaging to targeted education and resources at the community level; and
- research, development, demonstrations, and case studies for resilient and all-electric buildings and for lower global warming potential refrigerants.

Commissioner Visnauskas stated that the Advisory Panel is very sensitive to the fact that there are seven million housing units across New York and that these recommendations present significant changes for a large part of the State's economy. She added that there is a thoughtfulness thread throughout the Advisory Panel's work to ensure that the impact of these changes do not fall disproportionately on small building owners, the low-to-moderate income sector, and renters.

Power Generation Advisory Panel

Chair Rhodes provided context and considerations from the power generation perspective on the information presented on the electrification of buildings and transportation on the power grid. He agreed that these efforts are all crucial to meeting the Climate Act goals. Building on the previous presentations and the recent events in Texas, he stated that the principles of reliability, equity, affordability, zero-emission, and timeliness need to be addressed. Minimizing electric system infrastructure and resiliency costs is key and something New York has learned how to do as a result of Super Storm Sandy. Chair Rhodes characterized the needs as including better ways of managing electric load and supply and increasing flexibility. Flexibility strategies needed for success include rate design; energy storage; dynamic demand, such as with smart buildings; and forward-looking holistic planning across the electric, transportation, and buildings systems. He stressed, however, that one of the most basic foundational resources is advancing energy efficiency to the maximum extent possible, stating that it is the best way to manage the challenges of future grid development. Lastly, but equally important, he stated that one must always be attentive to ensuring that the costs of these efforts land most equitably across the sectors.

Discussion: Electrification

Dennis Elsenbeck began the discussion by making several observations, stating he appreciates the focus of the presentation shifting from supply issues to demand issues and noted the need for better connectivity; is concerned that settling on a need for an accelerated, upgraded, and likely costly, distribution system without considering value stacked pricing as a potential mitigant may be a missed opportunity; and believes that, with regard to distribution issues, current codes and standards are unnecessarily restrictive and that more prospective, non-wires alternatives built into value stacked pricing are needed.

In response, Chair Rhodes agreed that non-wires alternatives are definitely part of the solution set and should be implemented in ways to make development and improvements less expensive. He added that, although much more is needed, he considers much of the recommended activity as very achievable. Ms. Joseph added that several utility companies, along with New York City, are engaged in a detailed, forthcoming study regarding more carbon neutral solutions for integrating EVs at the distribution level. NYSERDA is also engaged in a distribution impact analysis for EVs.

Raya Salter found the presentation to be very thoughtful and provided several observations. She stated that it should be ensured that needed distribution upgrades be installed equitably and that when discussing disadvantaged communities and issues of Just Transition, there is a heavy emphasis on consumers and not enough emphasis on this constituency as participants in the business economy – issues that she believes transcend the energy efficiency, housing, and transportation sectors. Ms. Joseph responded by stating that work and discussions by the Energy Efficiency and Housing Advisory Panel includes both perspectives – those of consumers and those of business opportunities, and particularly on how one might leverage the Minority and Women-owned Business designation to drive additional opportunities in the clean energy space. She welcomed additional suggestions for consideration.

Bob Howarth expressed his support for several concepts presented by various panelists, including: potential fees for fossil fuel vehicle purchases; carbon fees, particularly to counter low natural gas prices; strengthened incentives for ground sourced heat pumps to counter higher upfront costs; banning fossil fuel in new construction; and additional analysis that will include upstream and methane emissions, which is likely to lead to stronger conclusions than those presented at this meeting.

Anne Reynolds stated that the presentation was very helpful and illustrative, particularly during the EV presentation where data was presented on the year where up-front cost parity and total cost of ownership parity are achieved compared to the needed level of sales to meet the Climate Act goals and requirements. She recommends this approach for the building sector analysis to provide a clearer look as to the overall status. She also was pleased with the discussion regarding direct sales for EVs and inquired as to whether dealer or purchaser incentives are more successful for increasing consumer awareness and availability. Lastly, as vehicle dealers seem to be a large barrier, she suggested developing ways to attract EV manufacturers or dealers to New York, even for buses or heavy-duty vehicles.

Jared Snyder stated that Connecticut has a fairly successful dealer (salesperson) incentive program that offers about \$300 per vehicle, but it is not in place of consumer incentives.

Donna DeCarolis suggested that different solutions for different regions of the state may want to be considered, specifically given the differences between urban neighborhoods and rural areas.

In response to a suggestion by Donna DeCarolis that it may be beneficial to share the Utility Group comments with the Energy Efficiency and Housing Advisory Panel, Co-Chair Harris stated that suggestion was being taken under advisement.

Regarding resiliency, Donna DeCarolis pointed out, in the context of the recent weather-related events in Texas, that the distribution system in eleven Western New York counties has proven itself to be storm-hardened and reliable given that approximately 94% of the energy delivered is through an underground natural gas distribution system. This illustrates the magnitude of a transition to a more electrified system. She suggested that, given reliability issues in particular, maybe more could be done upstream. Janet Joseph stated that the Energy Efficiency and Housing Advisory Panel is examining elements critical to support resiliency, such as passive house-type standards for new construction, the potential for energy storage and solar technologies, and forms of hybrid systems for existing buildings.

Regarding cost to consumers and cold weather option issues raised by Donna DeCarolis, Ms. Joseph stated that cost compression is a key component and the Advisory Panel is trying to identify a set of strategies that address it. She added that scale, learning, and a level of innovation will all serve to meet the goal, but that some applications are cost competitive today, while others are not and those cost premiums to consumers are being considered.

Peter Iwanowicz stated his support for the vehicle electrification presentation and his concern regarding low carbon fuel standards, which he believes do not square with the equity and justice framework of the Climate Act. He expressed his agreement with the suggestion by Bob Howarth that a pollution fee should be instituted. He also mentioned the potential for a forthcoming Climate and Community Investment Act.

In response to a request by Peter Iwanowicz for the Cadmus analysis, Adam Ruder reported that additional findings will be made available through the Transportation Advisory Panel within the next few months, culminating in a final report.

In response to an inquiry by Peter Iwanowicz regarding New York's progress under the 2013 multi-state Electric Vehicle Memorandum of Understanding and what lessons may have been learned to help meet 2030 goals, along with a suggestion about considering vehicles as energy storage devices, Mr. Ruder explained that, even with regulations, there is still a need for supportive policies. He stated that EV vehicle charging infrastructure, rebates, and consumer outreach have all helped to get to the current status of the market, but that there was much more to be done. He cited the need to work collaboratively to bring more EVs to market overall, and specifically to New York. In that vein, he reported that in 2020, EV adoption increased rather substantially, about a 25% increase, despite the COVID-19 pandemic, making him optimistic about future progress.

In referencing the Texas weather-related events, Gavin Donohue stated that the notion of resiliency cannot be overstated, and that New York is very fortunate to have a dual fuel requirement in New York City – just one of many things that distinguishes New York from Texas.

In response to remarks regarding cost compression, Mr. Donohue inquired as to the meaning of the term and how costs would be determined, suggesting that segments of the electric generation sector are supportive of imposing a price on carbon, Janet Joseph explained that the use of the term is meant to refer to driving down purchase and operational costs of building electrification technologies for the consumer. She added that preliminary information on cost analyses of these systems were discussed at a recent Energy Efficiency and Housing Advisory Panel meeting and further work will commence in that area on a cost-by-component and cost-by-system basis.

Agency Updates

Co-Chair Seggos introduced Maureen Leddy, Director, Office of Climate Change, NYS Department of Environmental Conservation, to provide an update on the Climate Act Annual Emissions Inventory Report. The Climate Act requires the first inventory of emissions data by January 2022, and to be annually updated. Stakeholder input is being solicited on key pieces of the inventory methodology

during late March 2021, including public hearings to seek input regarding the methodology and analysis used in the determination of statewide greenhouse gas emissions; this will include the annual emissions inventory overview and through stakeholder conferences on oil and gas emissions accounting and net emissions accounting. Additional information regarding the substance of the effort and how to participate will be made available on the NYS Department of Environmental Conservation website.

Co-Chair Seggos reminded the Council of the schedule leading to the Advisory Panel recommendations, which is designed to allow for more meaningful engagement in an open setting. The April 2021 meeting will include recommendations from the Agriculture and Forestry, Waste, and Energy Intensive Industries Advisory Panels and the Just Transition Working Group. In May, the Energy Efficiency and Housing, Power Generation, Transportation, and Land Use and Local Government Advisory Panels will present their recommendations.

Next Steps

Co-Chair Seggos announced that the next Council Meetings are scheduled for April 12 and May 10, 2021.

Farewell to Chair John Rhodes

On the occasion of his departure from State service, Co-Chair Seggos, Co-Chair Harris, Council Members, and other colleagues offered their sincere thanks, gratitude, and congratulations for the contributions made by Chair Rhodes in his role as a Council Member, as Chair of the New York State Public Service Commission, and as the President and CEO of NYSERDA. In return, Chair Rhodes said he was thrilled with the State's accomplishments over the past seven years, the result of a collective partnership across all of the State entities and through the Council and its momentum.

With that, the meeting was adjourned.



Climate Action Council

ANDREW M. CUOMO
GOVERNOR

DOREEN HARRIS
CO-CHAIR

BASIL SEGGOS
CO-CHAIR

Meeting Agenda February 26, 2021

- Welcome
- Consideration of January 19, 2021 Minutes
- Co-Chair Remarks and Reflections
- Electrification Presentation
- Discussion: Electrification
- Agency Updates
- Next Steps

In keeping with measures designed to limit the spread of COVID-19, the meeting will be conducted by teleconference and members of the public will be welcomed to observe and listen to the meeting via webcast only. The webcast may be accessed by going to the Climate Action Council website: climateact.ny.gov