

MINUTES OF THE CLIMATE ACTION COUNCIL MEETING

HELD ON JULY 22, 2021

Pursuant to Notice and Agenda, a copy of which is annexed hereto, an meeting of the Climate Action Council (“Council”) was convened at 2:00 p.m. on Thursday, July 22, 2021 at the offices of the New York State Department of Environmental Conservation at 625 Broadway, Albany, New York 12233 and at 47-40 21st Street, Long Island City, New York 11101. The following Members attended, and a quorum was present throughout the meeting:

Council Co-Chairs

- Doreen Harris, 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, President, Viridi Parente, Inc.
- Thomas Falcone, CEO, Long Island Power Authority (Anna Chacko, Designee)
- Eric Gertler, Acting Commissioner and President and CEO-designate of Empire State Development (Kevin Hansen, Designee)
- Rose Harvey, Senior Fellow for Parks and Open Space, Regional Plan Association
- John Howard, Interim Chair and CEO, New York State Public Service Commission
- Dr. 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
- Roberta Reardon, Commissioner, New York State Department of Labor (Yvonne Martinez, Designee)
- Anne Reynolds, Executive Director, Alliance for Clean Energy New York
- Rossana Rosado, Secretary of State, New York State Department of State (Sarah Crowell, Designee)
- Raya Salter
- Dr. 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. Mr. Seggos and Ms. Harris, Co-Chairs of the Council, welcomed all in attendance.

Consideration of the Minutes of the June 8, 2021 Meeting

The next item on the Agenda was to advance the minutes from the June 8, 2021 Meeting. Upon hearing no further changes or objections, upon motion duly made and seconded, the minutes were adopted.

Consideration of the Minutes of the June 28, 2021 Informational Meeting

The next item on the Agenda was to advance the minutes from the June 28, 2021 Informational Meeting. Upon hearing no further changes or objections, upon motion duly made and seconded, the minutes were adopted.

Co-Chair Remarks

Co-Chair Seggos provided brief remarks on events occurring nationally and internationally, focusing on extreme weather events, including the record heat, wildfires, records for drought and for rainfall, worsening air quality, not just in the United States, but across the globe – describing these events as evidence of a climate emergency. He stated that this presents an opportunity for New York, based on the Climate Act, to lead from the front, seek alignment with other states, make progress on alliances with others in the market and the federal government. Co-Chair Seggos concluded that millions of people are watching for the Council to realize this opportunity to do the right thing.

Co-Chair Harris provided information on recent announcements highlighting the investments being made in clean energy and the environment, including:

- The achievement of 3 gigawatts of solar installed in New York, which generates enough clean energy to power more than 500,000 homes; ahead of the 6 gigawatts by 2025 goal and representing 2,100% growth and 69% cost reduction;
- Nearly \$4 million awarded to grow community heat pump networks across the State;
- More than \$7 million available to advance low carbon solutions for multi-family buildings; and
- Efforts in long duration energy storage technology and product development, which sets the stage for the discussion planned regarding the realization of a robust, resilient, reliable grid of the future.

Presentation and Discussion: Climate Justice Working Group

Co-Chair Harris welcomed the members of the Climate Justice Working Group to provide feedback and begin a discussion on the recommendations advanced by the Power Generation Advisory Panel. She reminded the Council that not only is consultation with the Climate Justice Working Group required by statute, but it is critical to achieving the required emissions reductions in a manner that is centered on equity. Co-Chair Harris reported that every Advisory Panel has had representation from community-based and environmental justice organizations to engage in meaningful discussion and engagement on these critical topics to receive the perspectives needed to achieve the desired outcomes.

Advisory Panel Recommendations Feedback: Power Generation

Sonal Jessel, Director of Policy, WE ACT for Environmental Justice, began the presentation by expressing the overall impression of the Power Generation Advisory Panel on behalf of the Climate Justice Working Group. The Working Group observed progress in the areas of workforce development, affordability, community solar access, the rapid expansion of renewable energy, and the phase-out of existing fossil fuel plants. Areas of concern observed included the impression of false solutions, a lack of emphasis on public power and low-to-moderate programs that are commensurate with that sector, and there was a lack of attention to cumulative impacts, particularly in the context of co-pollutants.

Observations specific to access and affordability included the following:

- Further reductions to the overwhelming share of household income that low-income communities spend on electric power;
- Modifications to the NYS Home Energy Assistance Program should be prioritized;
- Better coordination among State agencies to remove silos and increase awareness for program eligibility should be pursued;
- Study and consider alternative utility rate structures that are progressive, creative, and more supportive of green energy;
- The Advisory Panel should seek more input from the Climate Justice Working Group on the 40% investment mandate for disadvantaged communities;
- Pre-development programs for energy projects owned by municipalities, indigenous tribes, community-based and non-governmental based organizations should be expanded;
- Environmental justice teams should be embedded within more State agencies; and
- Significant incentives to upgrade appliances should be provided for low-to-moderate income households.

Eddie Bautista, Executive Director, New York City Environmental Justice Alliance, presented observations regarding the retirement of fossil fuel-fired facilities, stating that:

- The Working Group supports the recommendation to rapidly launch an assessment and planning process to effectively and equitably reach zero emissions from power generation by 2040;

- The process for promulgation of NYS Department of Environmental Conservation-led greenhouse gas regulations must be clear and enforceable;
- The planning process should be iterative (perhaps re-evaluated every two years), perhaps involving the New York State Energy Planning Board;
- A moratorium should be placed on new fossil fueled plants until Council recommendations are adopted, absent a demonstrable system reliability need that cannot be reasonably met by non-polluting power;
- A moratorium on repowering facilities behind the meter, as is pursued by crypto-currency mining operations, to prevent exploitation of NYS Public Service Commission oversight until the conclusion of a full Environmental Impact Statement to determine compliance with and to not risk undermining the Climate Act.

Mr. Bautista emphasized the earlier remarks of Co-Chair Seggos regarding the immediate implications of climate change and the need for State leadership to heed the warnings as evidenced by current weather events.

Mr. Jerrod Bley, Clean Energy Program Director, Adirondack North Country Association, presented observations regarding distributed generation and distributed energy resource recommendations by the Power Generation Advisory Panel. The Climate Justice Working Group supports and urges the prioritization of:

- Addressing improvements to the Value of Distributed Energy Resources (VDER) stack to more accurately reflect value provided and to incorporation the Social Cost of Carbon and avoided transmission costs and to introduce an environmental justice/disadvantaged community adder to the value stack;
- Targeting incentives to stimulate high value distributed energy resource projects and to pair them with low-income and environmental justice electrification goals;
- Expanding NYSEERDA's Solar Energy Equity Framework;
- Creating dynamic rate structures and programs that provide appropriate price signals and stimulate distributed energy resource usage; and
- Ensuring a process is in place that assures low-to-moderate income community solar savings do not prevent access to other low-to-moderate energy savings programs.

Mr. Bautista presented feedback regarding reliability for the future electricity grid, which included the following suggestions:

- Making the New York Independent System Operator (NYISO) more transparent with additional opportunities for public input and critiques, along with better dissemination of the NYISO's needs assessments;
- Synchronize the Climate Act Scoping Plan and mandates with the State Energy Plan;
- Support the Advisory Panel recommendation to improve reliability and resilience to climate impacts through continued infrastructure investment with design criteria that can be adapted to reflect evolving climate impacts;
- Invest in community outreach to provide effective communication and support for communities impacted by extreme weather events;

- Address the impact of extreme heat beyond overcapacity to the grid by including other effects such as increased water demand (for cooling) and elevated fire risk (from sagging power lines); and
- Implement storm hardening of infrastructure investments in historically burdened communities first, given the lack of access to cooling, heating, transportation, or financial resources.

Regarding technology solutions, Mr. Bautista expressed support for the Advisory Panel prioritization of achieving the 70% renewable energy goal by 2030 and relayed concerns regarding what he described as unproven technologies, suggesting that the focus should be on existing technologies and developing needed solutions for dispatchable technologies. This is of particular concern to the Working Group in the context of the 100% renewable energy goal by 2040, which believes that certain demonstration projects distract from the renewable energy goals. The Working Group highlighted the Advisory Panel recommendation that there be a focus on life cycle air quality and health impacts of unproven technologies and is particularly concerned that fossil-fuel industry supported technologies may not reduce the pollution burden in environmental justice communities and may emit as much or more than fossil fuels.

The Working Group also believes that the recommendations concerning nuclear energy must be strengthened to address the environmental, health, safety, emissions, and injustice impacts of nuclear energy to avoid advantaging nuclear energy over clean energy sources and nuclear resources should be subject to the same life cycle analysis as fossil fuels. Concerns were also expressed with the potential for the relative inflexibility of nuclear generation to increasingly conflict with electric system needs as more renewable generation is added to the electric system.

The Climate Justice Working Group is generally supportive of the recommendations regarding workforce development to provide education and career opportunities in clean energy particularly for disadvantaged communities and fossil fuel sector employees. It believes that it is important to leverage tools like community workforce and community benefit agreements and to further emphasize green worker-owned cooperatives that promote ownership within that workforce.

Regarding energy delivery and hosting capacity, Mr. Bley reported that the Working Group supports the series of recommendations and suggested adding the following actions:

- Proactively identify key transmission and distribution upgrades, improvements, and new line construction needed to deliver renewable energy and maximize fossil fuel resource retirements; and
- Approach interconnection with an intelligent, justice-oriented lens by adopting advanced metering regulations; tailor regulatory changes in favor of community-led clean energy projects; subsidize community-led solar projects for upgrades and equipment; subsidize offshore wind interconnection

upgrades; and study and prioritize grid vulnerabilities in disadvantaged communities.

Regarding the growth of large-scale renewable energy generation, siting and community acceptance, Ms. Jessel stated that the Working Group was also supportive and suggested balancing the approach of large-scale renewable development with significant investment and technical support for disadvantaged communities to develop behind-the-meter microgrids; and to launch a Statewide public education campaign on the benefits of shifting to a clean economy. The Working Group particularly supported recommendations to incent local climate resilience hubs, fund non-profits and community-based organizations to conduct community outreach, streamlining energy efficiency incentives and ensuring community benefits and avoided costs are tracked in dollar amounts and the value of cumulative health benefits of clean power are quantified. The Working Group stated that existing storage technology is very important, and it supports updating the State's energy storage roadmap to recognize the substantially higher requirements identified in the Power Grid Study of 15 GW by 2030. It also supports increased funding for energy storage deployment, as well as a regulatory proceeding that would establish new mandated yearly energy storage targets and funding and financing mechanisms similar to the clean energy standard for storage.

The Working Group noted that the transition away from gas infrastructure is a strong recommendation by the Power Generation Advisory Panel and that it should include detailed analysis on the cost-effective and equitable strategy necessary for a just transition. Progress should be prioritized in environmental justice communities where co-pollutants pose a high cumulative burden. The Working Group is wary of the legitimacy of reliability concerns and concerns about increasing stranded assets when phasing out gas infrastructure. It also believes that an approach to abandoned wells requires more thought.

In response to an inquiry by Donna DeCarolis as to whether the Council had received a March 8, 2021 letter sent on behalf of 57 scientists with an alternative view on the False Solutions Report, Ms. Osgood confirmed receipt of that report as part of the Council's record of information. Mr. Bautista inquired as to whether there is further information as to the objectivity of the signatory scientists and their funding sources.

Chair Howard thanked the Working Group for its comments on the need for equitable funding for all renewable projects as they are integrated and in response to his inquiry regarding whether prevailing wages should be applied to all new State subsidized generation projects, regardless of size, Mr. Bautista stated that there was no opportunity for Climate Justice Working Group consensus on that newly framed issue, but he suspected that certain individual groups would likely support such a position.

In response to an inquiry by Chair Howard regarding the preferred approach to cost allocation for transmission related to offshore wind integration if not by percentage of load, Ms. Jessel agreed to take the issue back to the Working Group to for a potential consensus position.

Dennis Elsenbeck inquired as to whether the Working Group sufficiently distinguished between the transmission and distribution systems and whether it reviewed the utility non-wires alternatives for their adequacy in avoiding transmission costs. He also inquired whether the Group has additional ideas on further consideration of compensation for distributed energy resources to also avoid additional supply or in shuttering peaker plants, noting that part of balancing the system is a recognition that the system in place is currently not capable of supporting some of the requested actions. He further noted that, perhaps additional infrastructure investments may be a legitimate expenditure toward the 40% allocation toward disadvantaged communities in that supply, demand, and delivery all need to be in balance. In response, Mr. Bautista wondered if there was a semantics issue in categorizing distributed energy resources and highlighted that 60% of the expenditures remain, some portion of which could support necessary infrastructure investment, without impacting the 40% earmarked for direct community benefit.

Raya Salter thanked the Climate Justice Working Group for its thoughtful and meaningful presentation and suggested a careful examination of the equitable development of infrastructure in the context of the earmarking of expenditures as well as the emerging definition of disadvantaged communities and inquired of the Council Co-Chairs as to the mechanism for achieving equity and benefits while building the needed electrification capacity. Chair Howard responded by stating that, in addition to concluding the initial stages of its low-income proceeding in the next few months, the NYS Public Service Commission is facing the daunting task of determining how to rebuild the entire electric generation system in less than a generation while assessing how to pay for it, given that it will be nearly impossible to do so solely through ratepayer bills. Should Federal funding not materialize, Chair Howard stated that the allocation of costs across ratepayers will become that much more difficult and the current low income program will need a dynamism to it that allows for additional costs to be allocated equitably and with economic competitiveness in mind, while still fulfilling the 40% Climate Act mandate for disadvantaged communities. Chair Howard stressed the need for public involvement in the regulatory processes that the NYS Public Service Commission uses to form its decisions. Mr. Bautista advocated for the passage of the Climate and Community Investment Act (CCIA) as a means to pay for some of the necessary elements.

In response to an inquiry by Raya Salter as to how these recommendations will be built into the integration analysis, Co-Chair Harris stated that is expected to be addressed in a forthcoming presentation during the meeting.

In response to an inquiry from Rahwa Ghirmatzion, Executive Director, PUSH Buffalo, regarding the process for the Climate Justice Working Group to respond to the Council's questions posed to it during this meeting and for maintaining the dialogue, Co-Chair Harris stated that there would be future opportunities and that revisiting previously discussed topics may also be beneficial.

In response to an inquiry by Co-Chair Harris regarding how to consider the world of innovation and the need to be proactive and prepared for needs many years before they occur, Mr. Bautista suggested that there are many existing technologies, such as battery storage, that could be mobilized and maximized using State resources to massively expand clean energy technology rather than other technologies that appear to need even more public funding to get to commercialization. Ms. Ghirmatzion added that there is innovation to be had in holistically addressing inter-connectiveness in overcoming silos, and in maximizing and streamlining resources and deploying them in different ways. She believes more discussion should be had about community ownership and community control of resources including about innovation that already exist, such as micro grids. Ms. Ghirmatzion stressed that the tipping points are already being hit with weather disruptions that were thought to be a decade or two away, necessitating the focus to be on current technologies that can wean society from fossil fuels as quickly as possible.

Co-Chair Seggos responded to Ms. Ghirmatzion's comments about his recent visit to Buffalo and the very local efforts being undertaken in a 50 block radius to impact so many properties with strategic opportunities in heat pump technology, geothermal, solar, community gardens, storm water control, rainwater. He described it as a stunning operation and was curious as to how to measure the benefits to Buffalo of this undertaking. He noted strategic partnerships with other similar groups around the State and highly encouraged the Council as either a group, or individually, to visit these efforts, as well as those being undertaken in the South Brooklyn waterfront and elsewhere.

In response to a request from the Climate Justice Working Group for the Council to make a commitment to a meeting schedule to further enhance the ability for the exchange of information and feedback between the two groups, Co-Chair Seggos committed to providing a schedule, subject to tweaks, to further the ability of the Climate Justice Working Group to structure its feedback.

Presentation and Discussion: Integration Analysis

Sarah Osgood, Executive Director, Climate Action Council, began the presentation by emphasizing that, although the integration analysis is designed to provide support for the Scoping Plan, it is not synonymous with the Scoping Plan. Ms. Osgood explained that it is designed to assess the

greenhouse gas reductions, the benefits and the cost of the portfolios of measures, Statewide so that the implications of various policy recommendations can be understood. However, the Scoping Plan is a strategy documents that provides the basis to act on the policy recommendations and every policy that advances from the scoping plan will go through the required regulatory processes. She also presented a timeline of action to be taken through 2022 and beyond and requested input from the Council on scenario analysis development for the integration analysis.

Carl Mas, Director Energy and Environmental Analysis, NYSERDA presented the first of what is intended to be several discussions regarding the integration analysis process, the current draft greenhouse gas emissions, a draft reference case, information on an initial test run mitigation scenario and mitigation scenario planning. Mr. Mas stressed that the objective is not to create one view of the future, but to predict the uncertainties and determine where the Council may choose to prioritize different actions into the future. He began the discussion with a reminder of the process used, which includes the incorporation of insights and recommendations from Advisory Panels, Working Groups and complementary studies, such as detailed transportation and buildings road maps, a power grid study and other modeling (such as for hydrofluorocarbons, industrial energy processes and different waste emissions).

Mr. Mas presented the current emissions by sector and subsector where current estimated emissions are based on the NYS Department of Environmental Conservation draft methodology and Climate Act requirements. Buildings and transportation account for just over one-half of the Statewide gross greenhouse gas emissions, and when combined with electricity generation and waste, those four sectors account for over 75% of emissions. When compared to most states and the federal government, the Climate Act approach for accounting for greenhouse gas emissions is different in that it accounts for pollutants on a 20-year lifetime (as compared to a 100 year potential), includes emissions from biogenic carbon dioxide, and includes the impacts of upstream emissions from fossil fuels. In addition, under the new accounting, a renewable fuel can only avoid roughly 20-40% of a fossil fuel's emissions (as opposed to a net-zero replacement), as it only avoids the upstream emissions associated with the fuel. However, this does not specify how one might treat bioenergy within specific programs and policies.

Mr. Mas described in detail the role of upstream emissions, stating that they are about 30-40% of sectoral emissions for buildings, transportation, and electricity generation. For primary fossil fuels currently used in the State, around 40-70% of upstream emissions come from fugitive methane, which when coupled with the new accounting, has a significant impact on total energy emissions.

In response to an inquiry from Dr. Howarth regarding why fugitive in-State emissions are counted separately from other, upstream emissions, Mr. Mas stated that the principles of attribution between what

occurs at the end-user and what happens on the system as a whole, based on the physics of the system, which will better allow for targeting.

In response to an inquiry from Raya Salter regarding why the large change in the State's emissions based upon these new accounting methods, Mr. Mas described the specifics of the new accounting methods regarding global warming potential factors and how their application amplifies the emissions for certain sectors or pollutants, in addition to the effects of accounting for upstream emissions.

In response to comments from Dr. Shepson regarding the use of accounting that uses the best available science, which is rapidly evolving, such as accounting for methane in urban environments like New York City from the natural gas distribution system, Ms. Salter inquired as to efforts to update the accounting methodologies, as warranted. In response, Co-Chair Seggos confirmed that this is and will be an ongoing effort.

In response to an inquiry as to the basis for the new accounting system being discussed, Mr. Mas explained that it is based upon work undertaken by the NYS Department of Environmental Conservation published as part of its emission limits rulemaking at the end of 2020, informed by additional efforts, and which will culminate in the emissions inventory at the end of 2021. Jared Snyder, Deputy Commissioner, Office of Air Resources, NYS Department of Environmental Conservation, added that the methodology is also directed by the language of the Climate Act, as interpreted by DEC. However, with the exception of the three categories discussed and mandated by the Climate Act, the methodology remains consistent with the IPCC accounting. Dr. Howarth added that the most recent synthesis report from the IPCC is already eight years old, making the point that, scientists know more now than they did years ago, including the capabilities and limitations of certain modeling tools, such as the Greenhouse Gases, Regulated Emissions, and Energy Use in Technologies (GREET) model.

In response to an inquiry, Mr. Mas stated that a future portion of his presentation will address how the new Climate Act accounting will affect outcomes for the reference case and the mitigation policies.

In discussing the draft reference case, Mr. Mas explained that it is called the "current" draft inventory as it is based on the most current data available and not specific to one particular year. He also reiterated that this is the first step in the integration analysis and forms the basis for examining societal costs and benefits. Comparing scenarios against the reference case is a critical step to understanding what existing policies are expected to achieve and how new policies will need to expand and their commensurate costs and benefits. Mr. Mas described the elements that comprise the reference case including traditional macroeconomic, population and housing forecasts, energy efficiency programs, federal CAFÉ standards, the Clean Energy Standard and others, comparing the June 2020

Intergovernmental Panel on Climate Change (IPCC) accounting results with the Climate Act draft accounting results which show the need for more ambitious actions despite the strong downward emissions slope.

Mr. Mas presented the key drivers for the various sectors included in the reference case, including for transportation; buildings; electricity generation (which is ultimately anticipated to be dominated by wind, water, and sun); waste (the largest category of which is landfill); industrial processes and product use (particularly hydrofluorocarbons); agriculture, forestry and land use; industrial energy use; and in-State oil and gas fugitive emissions.

In response to an inquiry regarding the role of nuclear in the reference case, Mr. Mas explained that the assumption is that each nuclear plant will close at the end of its 60-year license, so there is licensing “step down” over time, adding that the loss of the nuclear plants presents challenges for the operation of the system and erosion of zero emissions.

In response to an inquiry by Anne Reynolds, Mr. Mas explained that the gap between load and generation depicts the expectation that New York will be importing more energy from outside of its borders over time, which would be predominantly fossil-fuel generation.

In response to an inquiry as to whether the reference case includes the 100 percent target and, if so, is New York importing more under that scenario, Mr. Mas stated that the answer is no in that the reference case only accounts for the 70 percent renewables by 2030 policy. Co-Chair Harris clarified that the 100 percent renewables by 2040 policy has not yet been taken up by the NYS Public Service Commission and is, therefore, not incorporated into the reference case.

In response to an inquiry as to the cost overlay if the State is working toward net-zero emissions and if it becomes more expensive, or can it be achieved cost-efficiently, Mr. Mas stated that there is no current answer, but the costs and benefits of each option must be examined.

In response to an inquiry by Rose Harvey regarding the role of hydroelectric, Mr. Mas stated that the reference case, which assumes a business as usual scenario, assumes a small growth in hydroelectric imports. Regarding the State policy on nuclear energy, he stated that the State does not control the relicensing process but accounts for the State’s ZEC program through 2029. Chair Howard added that the four remaining nuclear plants are poised for new corporate ownership and structure and the State anticipates further clarity on their future intentions later in the year which should help inform future policy making.

Mr. Mas reminded the Council of the requirement of a minimum of 85% reduction in direct emissions by and the goal to be carbon neutral by 2050. He then presented the largest and most important levers that resulted from the Advisory Panels that were incorporated into an initial “test run” mitigation scenario that was developed, with initial assumptions on mitigation measures, including rapid adoption of electric vehicles, a critical role for smart growth, transit, and telework, rapid building electrification, 100 percent zero-emissions electricity by 2040 and ambitious reductions in emissions from refrigerants, agriculture, waste and fugitive emissions. The results of which show that, while emissions deeply decline during this scenario, they fall short of the greenhouse gas limits, reaching achievement of roughly 30% in 2030 and roughly 80% in 2050. These results set the stage for determining the additional mitigation actions that will be required to reach the desired goals.

Mr. Mas presented options for mitigation scenario planning that will build from the Advisory Panel recommendations and explore additional measures to achieve the Climate Act goals. He described planned sensitivity analysis that is designed to capture a range of uncertainty in cost, technology mix, innovation, and federal policy.

Sarah Osgood presented guiding questions for scenario planning and requested additional strategies from the Council for consideration. Examples included:

- Regarding sector contributions, have the new carbon calculations changed the approach to carbon reduction by sector?
- Should any additional technology solutions be considered?
- Should the analysis move beyond natural replacement at the end of life and examine early retirement of building and transportation equipment?
- To what degree should the integration analysis examine different scopes and speed of different initiatives?

Chair Howard suggested that the Council consider what role administrative or regulatory actions play, as opposed to the role of the State Legislature, noting that these are large and expansive societal changes that may best be achieved through legislation. Ms. Osgood added that the Advisory Panels, in some cases, did include recommendations for legislative action and in other cases, the recommendations were regulatory in nature.

In response to an inquiry by Gavin Donohue as to the status of the cost study in the context of suggestions that there may be a moratorium on natural gas, the phase out of nuclear power, new vehicle mandates, phasing out of gas appliances and other potential policies and the implication that these changes could result in more pollutants rather than less, Mr. Mas stated that to more fully portray the costs associated with the policy levers, the Staff Team seeks input from the Council on the different parameters

that it prefers to be tested so that a family of scenarios can be presented in September and the associated costs of those scenarios presented in October. It is only then that the Council will have the full breadth of information to then decide and continue to debate the pros and cons of each scenario.

In response to an inquiry by Anne Reynolds regarding the seeming lack of progress in the waste sector as depicted in the reference case and whether there is a need to address this sector more aggressively, Mr. Mas stated that three sectors need to go deeper – buildings, transportation and waste.

In response to an inquiry by Donna DeCarolis regarding the impact on end-users for reliability, resiliency, and whether the impacts of heating with power sources such as solar, wind and water were factored into the scenarios, Mr. Mas stated that there are both quantitative and qualitative approaches to answering this question. On the quantitative side, the Staff Team is digging deep into the electric system as it is the backbone of the decarbonization effort, and the modeling framework does take into account the reliability needs of the system. The estimated costs of building out the distribution system are also being examined.

In the context of policy solutions and referencing the environmental justice component and the sentiment from the State Legislature to hear from the Council on its views of the CCIA, Dr. Howarth suggested that different scenarios that test carbon fees would be useful. He also suggested the consideration of the impacts of the different feedstocks for bioenergy.

Rose Harvey suggested the power of markets to influence human behavior and also suggested that if cost projections, particularly those associated with transforming the electric grid, are well beyond what is feasible, she welcomes that information so that the Council can factor that into its decision-making sooner rather than later.

Raya Salter suggested that the input of the Climate Justice Working Group should be further considered, particularly in instances for which it recommended further, more substantive recommendations, as for the Transportation Advisory Panel. She also suggested a scenario that prioritizes emissions and co-pollutant reductions in disadvantaged communities as required by the Climate Act. Mr. Mas stated that a Statewide, comprehensive look at the co-pollutants for each of the key scenarios on a county by county basis will be undertaken.

Dr. Shepson added to the discussion of co-pollutants that the calculated benefits from a planned reduction of avoided human health impacts in New York State are estimated in the billions of dollars per year and he inquired as to whether the development of a communication plan to explain the costs and benefits is underway. Ms. Osgood responded that discussions are underway and that a communications plan was a recommendation from some of the Advisory Panels and that mechanisms and methodologies are being considered. Co-Chair Seggos suggested that everyone on the Council has a role to play in being honest about the ideas being elevated, the data supporting them and the challenges ahead. He added that some of this will be State-led and some will be organically done by Council members and given that the public is more aware of these issues than ever and there is an opportunity to take advantage of that awareness to educate.

In responding to Raya Salter's request to reiterate the discussion regarding biofuels, Mr. Mas stated that the discussion prompted by Dr. Howarth was to emphasize that not all biofuels are created equal and there was a suggestion to embark on differentiation analysis of biofuels.

Peter Iwanowicz suggested revisiting the issue of bioenergy in the context of what the Climate Act allows so as to develop a consensus view on what is permitted under the statute. He also suggested that the reference case challenge the potential for continued growth in the vehicle population by stressing mass transit and, in his opinion, it will be a failure of the Council if there are more vehicles in 2050 than there are now. Further, he referenced a State-sponsored communications effort during 2009 and 2010 whereby the State sought to engage the public to participate in a plethora of energy efficiency and other programs and suggested that the NYS Public Service Commission reconsider this approach of presenting frank information about the benefits of some of the recommended actions. Lastly, Mr. Iwanowicz suggested that there is ample administrative authority by the State agencies to implement much of what will be considered.

In response to a suggestion by Anne Reynolds to think through which policy levers to pull in the scenarios and determine how to accelerate some of the recommendations, Mr. Mas agreed that the pathways analysis shows the "what" (such as the types of available technologies) but not the "how"; and the structures of the different policies are the critical part for Council debate. Mr. Snyder added that acceleration helps the State achieve the 2030 target, but not necessarily the 2050 or the net-zero carbon target where other sources such as hydrofluorocarbons, aviation fuels, and other sources come into play.

In response to an inquiry by Gavin Donohue regarding what reliability criteria and approaches are being implementing as part of the scenarios, Mr. Mas explained the use of the standard protocols and the contribution over time of each resource in meeting the capacity in need and the dynamics of meeting coincident peak. This dynamic calls for more batteries and more long duration storage and potentially other solutions. Donna DeCarolis also inquired as to how to appropriately contemplate the degree of power outages that are acceptable at the consumer level, to which Mr. Mas stated is a key question even today as many cannot heat their homes without electricity despite that it is not the prime mover in the home.

Dennis Elsenbeck suggested leveraging the existing data set and planning mechanisms of the utilities as they best know the age of their infrastructure and the location of their constraints, to which Mr. Mas reported that the Staff Team has engaged with the State's utilities and is endeavoring to prevent reinventing the wheel and to find ways to bring the utility data forward to further the effort.

Next Steps

Sarah Osgood presented the next steps as discussing the draft and revised results of the Integration Analysis scenario modeling at the Council meetings scheduled for September and October. She mentioned the option for scheduling an August Council meeting that could focus on presentation and discussion of the updated climate assessment, as well as to revisit the scenario planning matrix that will develop from the meeting discussion today and from follow-up over the next few weeks. Ms. Osgood also announced the August 2, 2021 Speaker Series on the topic of Reliability Planning. Given the substantive schedule for the remainder of the calendar year, the remaining Speaker Series events may be rescheduled to occur between the release of the draft Scoping Plan and the consideration of the final Scoping Plan.

In reviewing the Council meeting calendar for the remainder of the calendar year, Ms. Osgood stated that the October 2021 meeting will focus on an initial draft Scoping Plan, the November 2021 meeting could focus on discussion of that draft, in preparation of the Council's consideration of the draft Scoping Plan at its planned December 2021 meeting. At each of these meetings, Climate Justice Working Group input is envisioned, with the details to be determined as to when and what form that input would be received. In discussing the totality of the charge for the Council, Ms. Osgood solicited feedback from Council members on additional ideas as to how to proceed, including additional meetings, facilitation of between meeting discussions, surveys, emails, or other approaches.

In response to an inquiry by Donna DeCarolis regarding the ability to provide input on the current discussion, Ms. Osgood stated that input is very welcomed, and she would follow up with Council Members as to how best to provide it within the next two weeks. In response to a suggestion from Donna DeCarolis regarding scheduling the Business Council of New York State as part of the Speaker Series, Ms. Osgood reported that she has a scheduled discussion with the Business Council to explore that possibility.

With that, the meeting was adjourned.



ANDREW M. CUOMO
GOVERNOR

DOREEN HARRIS
CO-CHAIR

BASIL SEGGOS
CO-CHAIR

Meeting Agenda

July 22, 2021

- Welcome
- Consideration of June 8, 2021 Minutes
- Consideration of June 28, 2021 Minutes
- Presentation and Discussion: Climate Justice Working Group
 - Advisory Panel Recommendations Feedback: Power Generation
- Presentation and Discussion: Integration Analysis
- Next Steps