STATE OF NEW YORK

PUBLIC SERVICE COMMISSION

Case 15-E-0302 – Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard

COMMENTS OF AES CLEAN ENERGY, LLC
ON
NOTICE SEEKING FURTHER COMMENT

FEBRUARY 20, 2024

I. Introduction

In the responses to the Order Initiating Process Regarding Zero Emissions Target, stakeholders suggested various solutions and ideas for the New York Public Service Commission ("Commission"), to consider on its path to meet the goals of the Climate Leadership and Community Protection Act ("CLCPA"). In response to these comments, AES Clean Energy Development, LLC ("AES") appreciates the opportunity to further comment on additional and more specific questions posed by the Commission and Commission Staff.

II. AES Clean Energy

AES was founded in 1981 and is a U.S.-based Fortune 500 global energy company with headquarters in Arlington, Virginia and offices in many locations in the U.S., including New York City. Across the country, AES owns and operates a portfolio of more than 5.1 GW of renewable energy projects including more than 540 utility-scale and community solar, wind, energy storage, and hybrid projects across 24 states. AES is a committed, solutions-oriented climate leader. AES has spent more than two decades building projects in New York as one of the state's leading developers. AES' development pipeline in New York includes more than 2.8 GW of clean energy projects including utility-scale solar, wind, community solar, and energy storage. AES owns and operates one of the largest renewable energy portfolios in New York with 62 projects representing more than 850 MW of energy resources including Valcour Wind, a portfolio of 612 MW of operating wind projects.

III. Questions

AES is motivated to lead the energy industry in New York by developing and growing solutions that will enable the transition to zero emission sources of energy and achieving the CLCPA goals. AES reiterates its suggestion in the original comment response to the Order, that New York State Energy Research & Development Authority ("NYSERDA"), New York Independent System Operator ("NYISO"), and private developers should work together to envision what the future grid will look like, how it will operate, and what types of resources the grid will need at each milestone to get to a reliable and stable zero-emissions grid in 2040 and beyond. AES recognizes the challenges of achieving the goals of the CLCPA and a successful energy transition in New York, and would welcome the opportunity to participate, alongside other private developers, with state agencies in crafting the elements of the transition.

AES submits its comments on the additional questions listed in the Notice.

1. **PSL §66-p does not expressly indicate whether "zero emissions" refers to greenhouse gas emissions only, or greenhouse gases and also the "co-pollutants" referred to elsewhere in the CLCPA. Commenters offered different interpretations. Staff asks for further comment on this issue. Does the CLCPA, the PSL, and other relevant sources of authority argue for reading "emissions" in the term "zero emissions" as encompassing all air pollutants, greenhouse gas emissions only, or some other subset of air pollutants?**

The CLCPA's greenhouse gas ("GHG") emissions reduction goal is "a 40% reduction in statewide GHG emissions from 1990 levels by 2030, an 85% reduction in statewide GHG emissions from 1990 levels by 2050, and net zero emissions statewide by 2050."[1] Reference to GHG should be consistent with the GHG definition from the Environmental Protection Agency ("EPA") to include carbon dioxide, methane, nitrous oxide and fluorinated gases.[2] The CLCPA defines co-pollutants as "hazardous air pollutants produced by GHG sources,"[3] therefore a reduction in GHG should also result in a reduction of co-pollutants. The CLCPA cautions that GHG reduction efforts should not come at the expense of increased co-pollutants or disproportionate harm to Disadvantaged Communities ("DACs").[4]

2. **Multiple commenters discussed the relationship between the term "zero emissions" and the term "net zero emissions," which appears elsewhere in the CLCPA but not in provisions to be codified in the PSL. Staff asks whether the Commission must read these terms as distinct, and if so, how the Commission should characterize and apply the distinction between them.**

AES believes that "zero emissions" and "net zero emissions" are distinct terms and have specific meanings that apply to New York's climate goals. Reference to the emissions reduction goals of "net zero emissions statewide by 2050,"[5] suggests that "net zero emissions" could include carbon offset, carbon capture, advanced technologies, cap & invest or other mechanisms to arrive at "net zero". "Zero emissions," as referenced in the goal of "statewide electrical demand will be zero emissions" by 2040, refers to source of the electricity being from non-carbon emitting renewables and thus zero emissions sources. Thus, the GHG

[1] CLCPA https://www.nysenate.gov/legislation/bills/2019/S6599
[2] Environmental Protection Agency, Overview of Greenhouse Gases, https://www.epa.gov/ghgemissions/overview-greenhouse-gases
[3] CLCPA p. 5.
[4] CLCPA p. 12.
[5] New York Climate Action Council, Scoping Plan Full Report, December 2022, https://climate.ny.gov/-/media/Project/Climate/Files/NYS-Climate-Action-Council-Final-Scoping-Plan-2022.pdf

goal should be considered a "net zero GHG emissions" target and the electrical demand (renewable generation) target is "true zero GHG emissions".

4. **Defining an emissions limit requires specifying, among other things, which elements of the lifecycle of a given emissions source are to be counted, and the threshold level above which emissions from that source are impermissible or disqualifying. Staff seeks comments on what discretion the CLCPA leaves for the Commission when it specifies each of these parameters.**

The CLCPA does not provide specific guidance on lifecycle emissions counting. Therefore, the Commission has discretion to define or direct NYSERDA to define specific parameters for lifecycle emissions accounting. New York should look to Department of Energy's Office of Energy Efficiency and Renewable Energy for guidance on how to measure and count lifecycle emissions in the GREET[6], a framework to assess environmental impacts associated with all stages of the supply chain of a product. As well, the National Renewable Energy Lab (NREL) has guidance for life cycle stages tracking and classification for electrical generation[7] that could serve as a blueprint for New York.

AES believes the 100% by 2040 zero emissions electrical demand requirement in the CLCPA refers to the generation of the electricity (operation of the facility), one portion of the lifecycle of the facility (not including development and de-commissioning, for example). However, the CLCPA reduction for GHG is a net zero requirement. When considering the total lifecycle emissions of renewable electric generation, New York should consider lifecycle emissions reductions in a net zero context, because zero emissions during the entire lifecycle is not yet possible.

AES encourages New York to look at not only how to get to 2040 but create a vision for the grid beyond 2040. The Commission should also create a path to a future zero emissions grid of the future, by analyzing the lifecycle emissions data and encouraging action, innovation, and flexibility. Similarly, policies and regulations that impact lifecycle emissions should be reviewed and updated to incentivize companies in reaching a zero emissions lifecycle. For example, developers are not allowed to include salvage value of solar panels in their decommissioning cost estimate for state permitting. This increases developer costs and the project's lifecycle emissions. If salvage value was allowed as part of the overall decommissioning cost estimate, project economics would improve because of decreased decommissioning security requirements

[6] Department of Energy, Office of Energy Efficiency & Renewable Energy, GREET https://www.energy.gov/eere/greet

[7] NREL, Life Cycle Greenhouse Gas Emissions from Electricity Generation: Update, September 2021, https://www.nrel.gov/docs/fy21osti/80580.pdf

and lifecycle emissions would decrease through the reuse, recycle or repurpose of solar panels. New York will need to grow and adapt as clean energy technologies advance and the industry's understanding of the clean energy landscape grows.

5. **PSL §66-p(2) designates "fuel cells which do not utilize a fossil fuel resource in the process of generating electricity" as a "renewable energy system." What significance, if any, does this designation have for characterizing fuel cells that consume hydrogen, biogas, renewable natural gas, or other non-fossil fuels as "zero emissions"?**

AES understands that for fuels cells to be counted towards the "zero emissions" by 2040 goal, they need to consume a zero emissions resource such as green hydrogen for electricity or heat production. Fuel cells that consume natural gas, biogas, or renewable natural gas for electricity production used in the grid or electric vehicles are not zero emissions sources of electricity can be characterized differently.

6. **As some commenters point out, the "statewide electrical demand system" is not defined in the CLCPA or elsewhere. Staff asks for further comment on the meaning of this term. What definitions does the law support, and how do those definitions relate to electricity generated by resources that are located:**
   (a) outside of New York State, or
   (b) behind-the-meter?

The CLCPA supports a definition of "statewide electrical demand system" to mean all electricity consumed within New York, whether it is generated outside of or within New York State. This definition is supported by the definition of "statewide greenhouse gas emissions" in the CLCPA which "means the total annual emissions of greenhouse gases produced within the state from anthropogenic sources and greenhouse gases produced outside of the state that are associated with the generation of electricity imported into the state."[8]

Thus, if electricity is generated outside of New York, it must adhere to the renewable, zero emissions requirements of the CLCPA in order to meet the zero emissions by 2040 goal. Similarly, behind-the-meter generation in New York should also be from zero emissions sources. AES believes that under these parameters, New York should be able to import (and export) renewable electricity.

[8] CLCPA p. 6

IV. Conclusion

AES appreciates the opportunity to provide additional comments on zero-emissions in New York and recognizes the complexity and challenge of meeting New York's climate goals. AES remains a committed partner in achieving the goals of the CLCPA.