# STATE OF NEW YORK PUBLIC SERVICE COMMISSION

At a session of the Public Service Commission held in the City of Albany on May 18, 2023

COMMISSIONERS PRESENT:

Rory M. Christian, Chair Diane X. Burman James S. Alesi Tracey A. Edwards John B. Howard David J. Valesky John B. Maggiore

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

# ORDER INITIATING PROCESS REGARDING ZERO EMISSIONS TARGET

(Issued and Effective May 18, 2023)

BY THE COMMISSION:

#### INTRODUCTION

The Public Service Commission (Commission) is responsible for ensuring that the State meets certain specified renewable energy and decarbonization targets defined in the Climate Leadership and Community Protection Act (CLCPA).<sup>1</sup> The CLCPA directs the Commission to establish, among other things, a program to ensure that (1) by 2030, at least 70% of electric load is served by renewable energy (70 by 2030 Target), and (2) by 2040, there are zero emissions associated with electrical

<sup>&</sup>lt;sup>1</sup> Chapter 106 of the Laws of 2019 (codified, in part, in Public Service Law (PSL) §66-p). The CLCPA became effective on January 1, 2020.

demand in the State (Zero-Emission by 2040 Target).<sup>2</sup> Following enactment of the CLCPA, the Commission issued the Order Adopting Modifications to the Clean Energy Standard, which aligns the existing Clean Energy Standard (CES) with the CLCPA renewable energy targets.<sup>3</sup>

The pathway established by the CES Modification Order focuses on options for procuring sufficient renewable energy resources to meet CLCPA requirements. However, several studies indicate that renewable energy resources may not be capable of meeting the full range of electric system reliability needs that will arise as fossil generation is replaced. These studies suggest that there is a gap between the capabilities of existing renewable energy technology and expected future system reliability requirements. The Independent Power Producers of New York, Inc., New York State Building and Construction Trades Council, and New York State AFL-CIO (Petitioners) also raised this issue in a petition filed in this proceeding on August 18, 2021 (Zero Emissions Petition or Petition).

This Order responds to the Petition and initiates a process to identify technologies that can close the gap between the capabilities of existing renewable energy technologies and future system reliability needs, and more broadly identify the actions needed to pursue attainment of the Zero Emission by 2040 Target. As a first step, rather than adopting a new CES tier as requested in the Zero Emissions Petition, this Order seeks input from stakeholders on options for addressing that gap. In particular, the Commission welcomes responses to the questions posed in the body of this Order and directs the Department of

<sup>&</sup>lt;sup>2</sup> Id.

<sup>&</sup>lt;sup>3</sup> Case 15-E-0302, Order Adopting Modifications to the Clean Energy Standard (issued October 15, 2020) (CES Modification Order).

Public Service staff (Staff), in consultation with the New York State Energy Research and Development Authority (NYSERDA), to convene a technical conference that addresses the same list of questions.

## BACKGROUND

On August 1, 2016, the Commission adopted the CES to achieve a statewide deployment goal of 50% renewable generation resources by 2030.<sup>4</sup> The CES embodies both a Renewable Energy Standard (RES) and a Zero-Emissions Credit (ZEC) requirement. The RES includes two "tiers." Tier 1 currently obligates each load-serving entity (LSE) to serve its retail customers using new renewable resources, and to demonstrate compliance by procuring qualifying Renewable Energy Certificates (RECs) from NYSERDA or other sources, or by making Alternative Compliance Payments.<sup>5</sup> As originally constituted, Tier 2 consisted of a maintenance program to provide financial support to existing eligible renewable facilities that were viewed as being at financial risk of ceasing operations. The ZEC requirement, designated as Tier 3 of the CES, directs support to existing nuclear facilities. ZEC payments reflect the value of the potential damages caused by the carbon dioxide emissions those facilities avoid by continuing to operate. In July 2018, the Commission added an Offshore Wind Standard to the CES, requiring

<sup>&</sup>lt;sup>4</sup> Case 15-E-0302, <u>et al</u>., Order Adopting a Clean Energy Standard (issued August 1, 2016) (CES Framework Order).

<sup>&</sup>lt;sup>5</sup> The Commission recently revised the LSE obligations under Tier 1 to, in part, eliminate the need for making Alternative Compliance Payments starting in 2025. Case 15-E-0502, <u>et al.</u>, Order Modifying Clean Energy Standard Tier 1 Obligations (issued April 20, 2023).

LSEs to support the procurement of 2.4 gigawatt (GW) of offshore wind resources by  $2030.^{6}$ 

In 2019, the Legislature enacted the CLCPA, which directs the Commission to establish a program to meet the 70 by 2030 and Zero-Emission by 2040 Targets.<sup>7</sup> To satisfy this statutory obligation and align CES policies with CLCPA mandates, the Commission issued the CES Modification Order in October 2020. That order authorizes NYSERDA to conduct annual Tier 1 solicitations to ensure that 70% of load in 2030 is served by renewable energy resources. The CES Modification Order also modified the Offshore Wind Standard to authorize NYSERDA to conduct annual offshore wind solicitations in amounts necessary to achieve the CLCPA goal of 9 GW of offshore wind by 2035.8 Additionally, the Tier 4 program was established to support either the development of renewable generation capacity within, or delivery of renewable energy directly to, New York City.<sup>9</sup> The Commission approved contracts for two Tier 4 projects in April 2022.<sup>10</sup> Finally, the CES Modification Order established a competitive Tier 2 program for existing renewable energy resources to ensure that those resources stay in service.<sup>11</sup> The Commission viewed the four CES tiers together with the Offshore Wind Standard, collectively, as an appropriate mechanism to achieve the 70 by 2030 and Zero-Emission by 2040 Targets.

<sup>8</sup> CES Modification Order, pp. 45-46.

<sup>9</sup> Id., pp. 79-80.

- <sup>10</sup> Case 15-E-0302, Order Approving Contracts for the Purchase of Tier 4 Renewable Energy Certificates (issued April 14, 2022).
- <sup>11</sup> CES Modification Order, pp. 61-71.

<sup>&</sup>lt;sup>6</sup> Case 18-E-0071, <u>Offshore Wind Energy</u>, Order Establishing Offshore Wind Standard and Framework for Phase 1 Procurement (issued July 12, 2018) (Offshore Wind Order).

<sup>&</sup>lt;sup>7</sup> <u>See</u> Chapter 106 of the Laws of 2019 (codified, in part, in PSL §66-p).

Nevertheless, although the CES Modification Order expanded the Offshore Wind Standard and established the Tier 4 program, in part, to support progress toward the Zero-Emission by 2040 Target, the Commission understood that still more would be needed to achieve this goal. Indeed, the CLCPA, through PSL \$66-p(3), anticipated that the Commission would need to continually monitor and potentially update its approach for compliance with the 70 by 2030 and Zero Emissions by 2040 Targets through its biennial review, starting in 2024, of the program implemented to achieve those targets.<sup>12</sup>

# ZERO EMISSIONS PETITION

On August 18, 2021, Petitioners filed the Zero Emissions Petition requesting that the Commission establish a program to encourage private sector investment in 1 GW of "zero emissions energy systems" that would commence commercial operation by 2030.<sup>13</sup> The Zero Emissions Petition also proposed to define "zero emissions energy systems" as systems, other than renewable energy systems, that generate electricity or thermal energy through the use of technologies that do not lead to a net increase in greenhouse gas emissions into the atmosphere at any time in the process of generating electricity. Although the Zero Emissions Petition does not directly suggest which technologies should be considered zero-emissions energy systems, it does highlight several resources, including bioenergy, hydrogen, carbon capture and sequestration, and nuclear

<sup>&</sup>lt;sup>12</sup> See PSL §66-p(3) (requiring the Commission, no later than July 1, 2024, and every two years thereafter, to "issue a comprehensive review of the program[s] established pursuant to this section").

<sup>&</sup>lt;sup>13</sup> Zero Emissions Petition, p. 2.

generation.<sup>14</sup> Finally, the Zero Emissions Petition recommends that any new program include quality-based contracting and various labor provisions, such as prevailing wage requirements, project labor agreements, Buy American provisions, and apprenticeship training.<sup>15</sup>

## NOTICE OF PROPOSED RULE MAKING

Pursuant to the State Administrative Procedure Act (SAPA) §202(1), a Notice of Proposed Rule Making was published in the <u>State Register</u> on September 15, 2021 [SAPA No. 15-E-0302SP49]. The time for submission of comments pursuant to the Notice expired on November 15, 2021. Because the Commission is not taking any final action on the Petition through this Order, only a brief summary of the comments is provided below.

#### SUMMARY OF COMMENTS

All commenters concur in the need for new kinds of zero-emissions resources to meet the Zero-Emission by 2040 Target, and many support the inclusion of robust labor provisions in any new CES tier. For example, NRG Energy, Inc. commented that a market-based program to incentivize the resources envisioned in the Zero Emissions Petition is needed now because these technologies do not yet exist on a commercial scale and need ample time for development, permitting, and construction. The North Atlantic States Regional Council of Carpenters, Climate Jobs NY, the International Union of Operating Engineers, and the Northeast Dairy Producers Association believe the program proposed in the Zero Emissions Petition would help reach the Zero Emissions by 2040 Target,

<sup>15</sup> <u>Id.</u>, pp. 10-11.

<sup>&</sup>lt;sup>14</sup> <u>Id.</u>, pp. 8-9.

while maintaining system reliability and including important union labor provisions.

Both the Natural Resources Defense Council and a coalition of 25 organizations filed separate comment letters asserting that the Petition is premature because none of the technologies highlighted therein are commercially available at this time and true zero-emission technologies, like long duration storage, are currently in development.<sup>16</sup> Additionally, these commenters state that the Zero Emissions Petition inappropriately attempts to redefine the CLCPA's Zero-Emission by 2040 Target as a net-zero target. Multiple Intervenors and Nucor Steel Auburn, Inc. also believe the Petition to be premature and urge that, if the Commission decides to institute any program to support zero-emissions technologies, it should focus on pilot projects to demonstrate feasibility and include cost caps. Both the Joint Utilities and the New York Independent System Operator, Inc. (NYISO) recommend that the Commission direct Staff to convene a technical conference to

<sup>&</sup>lt;sup>16</sup> Sierra Club, Earthjustice, New York City Environmental Justice Alliance, New York Lawyers for the Public Interest, Clean Energy Group, Environmental Advocates NY, All Our Energy, Alliance for a Green Economy, BK ROT, Church Women United in New York State, Citizens' Environmental Coalition, Climate Solutions Accelerator of the Genesee-Finger Lakes Region, Fossil Free Tompkins, Gas Free Seneca, Long Island Progressive Coalition, Nassau Hiking & Outdoor Club, New Yorkers for Clean Power, Renewable Energy Long Island, Scenic Hudson, Inc., Seneca Lake Guardian, Sisters of Charity Federation, South Shore Audubon Society, Surfrider Foundation, Sustainable Tompkins, Inc., and Syracuse Peace Council.

explore the need identified by the Petitioners and to determine which resources may qualify as zero-emissions under the CLCPA.<sup>17</sup>

## LEGAL AUTHORITY

The Commission's authority derives from the PSL, which delegates it various powers. Pursuant to PSL §5(1), the "jurisdiction, supervision, powers and duties" of the Commission extend to the "manufacture, conveying, transportation, sale or distribution of ... electricity." PSL §5(2) requires the Commission to "encourage all persons and corporations subject to its jurisdiction to formulate and carry out long-range programs, individually or cooperatively, for the performance of their public service responsibilities with economy, efficiency, and care for the public safety, the preservation of environmental values and the conservation of natural resources." In addition, PSL §66(2) provides that the Commission shall "examine or investigate the methods employed by [] persons, corporations and municipalities in manufacturing, distributing and supplying ... electricity ... and have power to order such reasonable improvements as will best promote the public interest, preserve the public health and protect those using such ... electricity." Additionally, PSL §65(1) provides the Commission with authority to ensure that "every electric corporation and every municipality shall furnish and provide such service, instrumentalities and facilities as shall be safe and adequate and, in all respects, just and reasonable." PSL §4(1) also

<sup>&</sup>lt;sup>17</sup> The Joint Utilities are Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., National Fuel Gas Distribution Corporation, New York State Electric & Gas Corporation, The Brooklyn Union Gas Company d/b/a National Grid NY, KeySpan Gas East Corporation d/b/a National Grid, and Niagara Mohawk Power Corporation d/b/a National Grid, Orange & Rockland Utilities, Inc., and Rochester Gas and Electric Corporation.

expressly provides the Commission with "all powers necessary or proper to enable [the Commission] to carry out the purposes of [the PSL]" including, without limitation, a guarantee to the public of safe and adequate service at just and reasonable rates, environmental stewardship, and the conservation of resources.

The CLCPA amended the PSL by adding PSL §66-p(2), which directs the Commission to "establish a program to require" hitting the 70 by 30 Target and Zero-Emission by 2040 Target described above. PSL §66-p(2) further directs the Commission to "consider and where applicable formulate the program[s] to address impacts of the program[s] on safe and adequate electric service in the state under reasonably foreseeable conditions. The [C]ommission may, in designing the program[s], modify the obligations of jurisdictional load serving entities and/or the targets upon consideration of the factors described in this subdivision." In addition to the PSL, the New York State Energy Law §6-104(5)(b) requires that "[a]ny energy-related action or decision of a state agency, board, commission or authority shall be reasonably consistent with the forecasts and the policies and long-range energy planning objectives and strategies contained in the plan, including its most recent update."

### DISCUSSION

The Zero Emissions Petition raises a concern that was highlighted in 2020 and 2021 studies of the future electric grid, and that has since been echoed by the NYISO in its 2022 Reliability Needs Assessment.<sup>18</sup> These studies, described below, suggest that new types of resources will be needed to ensure system reliability requirements are met as the system approaches

<sup>&</sup>lt;sup>18</sup> NYISO, 2022 Reliability Needs Assessment (Nov. 2022), p. 11.

the Zero-Emission by 2040 Target. However, the Commission notes that the Zero Emissions Petition incorrectly claims that the Commission has yet to address the Zero-Emission by 2040 Target. As explained above, the CES Modification Order established the four CES tiers together with the Offshore Wind Standard as the primary mechanism by which to comply with the two targets, with the understanding that the Commission would periodically review NYSERDA's implementation of the CES to evaluate whether any changes to the program were necessary. A comprehensive biennial review of the CES, for instance, is slated for 2024, consistent with what the CLCPA requires.<sup>19</sup> The Commission noted in the CES Modification Order that the need for new types of clean resources is not expected to emerge uniformly across the State; it will be more pronounced downstate and in New York City (NYISO Zone J) especially.<sup>20</sup> This technology gap could be bridged with zero emissions resources that have performance characteristics similar to those of existing fossil fuel generators or that depart from that conventional profile.

For instance, the Zero-Emissions Electric Grid in New York by 2040 Study identifies the need for a mix of transmission and generation resources that includes 17-23 GW of placeholder "backstop thermal" generation capacity.<sup>21</sup> The study estimates that those backstop thermal resources would provide energy needed to meet load when energy from variable renewable resources and energy storage would not be available. These backstop resources would be required for just 3% of the 8760 hours in a year (roughly 11 days).<sup>22</sup>

<sup>19</sup> CES Modification Order, p. 6 (citing PSL §66-p(5)).

<sup>22</sup> <u>Id.</u>, p. 79.

<sup>&</sup>lt;sup>20</sup> Id., pp. 77-79.

<sup>&</sup>lt;sup>21</sup> Johannes Pfeiffenberger et al., Brattle, Initial Report on the Power Grid Study (2021), pp. 10, 102.

Similarly, the NYISO's 2021-2040 System & Resource Outlook concluded that New York will need 27-45 GW of what the NYISO calls dispatchable emission-free resources (DEFRs) to "provide sustained on-demand power and system stability" after CLCPA requirements prohibit reliance on resources that emit greenhouse gases.<sup>23</sup> This echoes the finding in a 2020 report also commissioned by the NYISO that "the variability of renewable resource output leads to circumstances where ... there are periods of time that our resource mix is insufficient to meet load in all Zones," thus creating the need for making "dispatchable and emissions-free resources" available to be connected to New York's grid.<sup>24</sup>

As these studies demonstrate, increasing the supply of renewable generation will not, by itself, eliminate the risk of a future reliability shortfall in the downstate region. Similarly, adding transmission is only a partial solution to the problem. However, neither the Zero Emissions Petition nor any of the studies cited above specifies exactly what technologies will be deployed to solve this problem, or when those technologies will become available.

We therefore conclude that the Commission's efforts to meet the CLCPA targets must include exploration of technologies

<sup>&</sup>lt;sup>23</sup> NYISO, 2021-2040 System & Resource Outlook, pp. 13-14.

<sup>&</sup>lt;sup>24</sup> Paul J. Hibbard, et al. (for NYISO), Climate Change Impact Phase II, An Assessment of Climate Change Impacts on Power System Reliability in New York State, Final Report (Sept. 2, 2020). This study "does not identify exactly what the resource is. It could be thermal generating resources that looks like the combustion turbines in operation today, but operating on a fuel that is at least net zero from a GHG emission perspective, such as turbines running on renewable natural gas or hydrogen. It could be some form of demand response. It could represent the emergence of a long-term economic storage technology. Or, of course, some combination of all of the above." Id., pp. 33-34.

that can support reliability once conventional fossil fuel generation has been removed from the system. We see this exploration as integral to our responsibility under the PSL to ensure reliable electric service as we approach the Zero Emissions by 2040 Target.<sup>25</sup> With this Order, we are initiating a process to determine appropriate next steps to address this gap, including consideration of whether it is appropriate for the Commission to allocate ratepayer funds to incentivize the deployment of zero-emission technologies. To advance this exploration, we seek comment on the topics identified below, as expanded by the questions listed in the following Notice.

Many of the questions posed below relate to how the term "zero emissions" should be defined. This is a particularly important issue given that neither PSL 66-p(2) (b) nor any other provision of the CLCPA defines the technologies that should be considered "zero emissions." Section 66-p(2) (b) simply states that "by the year [2040] the statewide electrical demand system will be zero emissions." The CES Modification Order established that the technologies defined as "renewable energy systems" under PSL 66-p(1) (a) are <u>de facto</u> "zero emissions" for purposes of meeting the 2040 target.<sup>26</sup> Additionally, the Commission recognized existing nuclear generation as a zero-emission technology in its 2016 CES Framework Order, which created the ZEC program.<sup>27</sup> However, PSL 66-p(2) (b) does not say more about what is meant by "zero emissions," leaving it to the Commission to define the term.

- <sup>26</sup> CES Modification Order, p. 27.
- <sup>27</sup> CES Framework Order, pp. 19-20.

<sup>&</sup>lt;sup>25</sup> We note that the U.S. Department of Energy recently published several "Pathways to Commercial Liftoff" studies that examine what would be involved in the development of long-duration energy storage, advanced nuclear, and hydrogen resources. https://liftoff.energy.gov/.

In exercising our discretion to interpret the statute, we are mindful of other provisions in the overall scheme that may constrain that discretion. The Commission is not the only agency assigned the task of defining "zero emissions" under the The same statute also adds §75-0107 to the Environmental CLCPA. Conservation Law, which tasks the Department of Environmental Conservation (DEC) with adopting regulations to implement the CLCPA's emissions reduction targets relative to a 1990 greenhouse gas (GHG) emissions baseline. Specifically, DEC is tasked with establishing a statewide GHG emissions limit as a percentage of 1990 emissions as follows: (i) 60% of 1990 emissions by 2030; and (ii) 15% of 1990 emissions by 2050.<sup>28</sup> In establishing the overall GHG limit, DEC must also determine the categories of resources that count toward contributing GHG emissions. Thus, to implement the CLCPA, it appears that both the Commission and DEC must address questions about what energy generation technologies qualify as zero-emission.

Of note, the Zero Emissions Petition presents several specific technologies as candidates for a "zero emission" CES Tier, including new nuclear, biofuels, hydrogen, and carbon capture and sequestration. We therefore also invite comment on each of these technologies and their suitability for participation in a zero-emissions electric system as contemplated by the CLCPA.

Finally, we offer the following observations concerning the technologies that may be considered zeroemissions under PSL §66-p(2)(b), based on our current knowledge:

• While the Commission has recognized that existing nuclear generation is a zero-emission technology, it has not addressed new nuclear generation facilities under PSL §66-p(2). We understand that research efforts are underway to

<sup>&</sup>lt;sup>28</sup> ECL §75-0107(1).

develop new types of reactors but the status and cost of these technologies are uncertain.

- Further, we understand that hydrogen technologies are being researched and tested for their potential contribution to a zero-emission grid. Current demonstration projects show that hydrogen blending can reduce gas-fired power plant emissions somewhat.<sup>29</sup>
- As for biofuels, the Commission notes that DEC considers the emissions from the combustion of biomass to contribute to gross emissions under the CLCPA.<sup>30</sup> This is relevant to, though not necessarily determinative of, whether the use of biomass as fuel for power plants can be considered zeroemissions for the purpose of compliance with PSL §66-p(2), or net-zero for purposes of the CLCPA's separate net-zero emissions target.

In sum, although the Commission has established a program to meet the requirements of PSL §66-p(2), additional policies, programs, or rules may be needed to address the issues that are expected to arise by 2040 or earlier when reliability requirements cannot be met by existing renewable generation and energy storage technologies alone, as well as to address other reliability challenges such as managing changing patterns of

<sup>&</sup>lt;sup>29</sup> See New York Power Authority, EPRI and GE Announce Results from NYPA Green Hydrogen Demonstration Project, found at https://www.nypa.gov/news/press-releases/2022/20220923greenhydrogen (Sept. 23, 2022); Executive Summary - Hydrogen Blending Demonstration at UMERC's A.J. Mihm Generating Station: Wärtsilä 18V50SG Reciprocating Internal Combustion Engine, found at https://www.epri.com/research/products/00000003002026305 (2023).

<sup>&</sup>lt;sup>30</sup> See DEC, Regulatory Impact Statement for 6 NYCRR Part 496 (RIS), Statewide Greenhouse Gas Emission Limits, found at https://www.dec.ny.gov/docs/administration\_pdf/revisedris496.p df, pp. 9-10; DEC, NYS Greenhouse Gas Emissions Report, Sectoral Report #1, found at https://www.dec.ny.gov/docs/administration\_pdf/ghgenergy22.pdf , p. 5 (including wood in mix of fuels used to generate electricity in New York that count toward carbon emissions).

demand and maintaining the overall capabilities of the electric grid as the State integrates more intermittent resources. The Commission acknowledges the critical importance of successfully managing these reliability challenges to ensure an efficient and effective transition to a zero-emissions electric grid. By this Order, the Commission initiates a process to examine both the options for resources capable of supporting the reliability of a zero-emissions electric grid and the subsequent actions the Commission and others might need to undertake for attainment of the Zero Emissions by 2040 Target. Accordingly, after a 60-day comment period (i.e., a deadline of July 17, 2023), Staff will convene at least one technical conference, within the next 120 days, to examine the issues and questions, including, but not limited to, those set forth below.

#### NOTICE SOLICITING PUBLIC COMMENTS

Comments are solicited on the following questions relevant to addressing the issues raised above, as well as other related matters that commenters would like to raise. Answering these questions will assist the Commission in determining what, if any, subsequent actions should be taken, which may include refinements to existing policies or establishing new policies.

# QUESTIONS

- How should the term "zero emissions," as used under PSL §66-p(2)(b), be defined?
- 2. Should the term "zero emissions" be construed to include some or all of the following types of resources, such as advanced nuclear (Gen III+ or Gen IV), long-duration storage, green hydrogen, renewable natural gas, carbon capture and sequestration, virtual power plants, distributed energy resources, or demand

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response resources? What other resource types should be included?

- 3. How should a program to achieve the Zero-Emission by 2040 Target address existing and newly constructed nuclear energy resources. Should the program be limited to specific types of nuclear energy technologies and exclude others?
- 4. Should new measures adopted to pursue compliance with the Zero-Emission by 2040 Target focus exclusively on generation and resource adequacy, or should they also encompass a broader set of technologies that could be integrated into the transmission or distribution system segments, or installed and operated behind-themeter?
- 5. Should any program to achieve the Zero-Emission by 2040 Target specify subcategories of energy resources based on particular characteristics, such as ramp rates, the duration of their operational availability, or their emissions profile with respect to local pollutants?
- 6. What role does technology innovation need to play to meet the CLCPA's Zero-Emission by 2040 Target?
- 7. Should life cycle emissions impacts be considered when characterizing energy resources? If so, how?
- 8. Given that the feedstocks and other resources required to produce renewable natural gas are limited and will be in demand in other sectors of New York's economy, how should this fuel be considered in the context of this proceeding?
- 9. In what ways might a program to meet the Zero-Emission by 2040 Target require reexamination and possibly revision of different tiers of the Clean Energy

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Standard? Should one or more of the policy approaches that have been used to implement the CES be considered to meet the Zero-Emission by 2040 Target?

- 10. What is necessary to align a program to meet the Zero-Emission by 2040 Target with the priority of just transition embedded within the CLCPA?
- 11. How might the benefits of a program to meet the Zero-Emission by 2040 Target be measured for the purpose of ensuring that, consistent with PSL §66-p(7), it delivers "substantial benefits" to Disadvantaged Communities?
- 12. NYISO has adopted an effective load carrying capacity (ELCC) rubric and treatment of Zones J and K as load pockets with special resource adequacy requirements. How should these constructs and other NYISO market rules inform design of a program meant to support the development and deployment of resources capable of achieving a zero emissions grid?
- 13. What additional studies, if any, should the Commission undertake with respect to the development and deployment of resources capable of achieving a zero emissions grid?
- 14. Given that New York is not the only jurisdiction investigating options and opportunities for the research, development, and deployment of new technologies capable of achieving a zero emissions grid, how should the State seek to coordinate with and otherwise draw upon efforts that are underway elsewhere?

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# The Commission orders:

1. A process is initiated to identify technologies that can close the gap between the capabilities of existing renewable energy technologies and future system reliability needs, and more broadly identify the actions needed to pursue attainment of the Zero Emission by 2040 Target.

2. Comments on the questions contained in this Order shall be filed by July 17, 2023, within Case 15-E-0302.

3. Department of Public Service staff shall, in consultation with the New York State Energy Research and Development Authority, convene a technical conference within the next 120 days, as discussed within the body of this Order.

4. In the Secretary's sole discretion, the deadlines set forth in this Order may be extended. Any request for an extension must be in writing, must include a justification for the extension, and must be filed at least three days prior to the affected deadline.

5. This proceeding is continued.

By the Commission,

(SIGNED)

MICHELLE L. PHILLIPS Secretary