

**New York Power Authority**  
**Statement of Greenhouse Gas Emissions**  
**For the Year Ended December 31, 2023**  
**(With Independent Accountants' Review Report Thereon)**



KPMG LLP  
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## Independent Accountants' Review Report

To the Board of Trustees of New York Power Authority:

### **Report on the Statement of Greenhouse Gas Emissions of New York Power Authority for the year ended December 31, 2023**

#### *Conclusion*

We have reviewed whether New York Power Authority's Statement of Greenhouse Gas Emissions and notes (the Statement) for the year ended December 31, 2023 have been prepared in accordance with the reporting criteria set forth in Note 1 ('Basis of Presentation') of the Statement (the Criteria).

Based on our review, we are not aware of any material modifications that should be made to the Statement for the year ended December 31, 2023 in order for it to be prepared in accordance with the Criteria.

Our conclusion on the Statement does not extend to any other information that accompanies or contains the Statement and our report.

#### *Basis for conclusion*

Our review was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants in the versions of AT-C section 105, *Concepts Common to All Attestation Engagements*, and AT-C section 210, *Review Engagements* that are applicable as of the date of our review. We are required to be independent and to meet our other ethical requirements in accordance with relevant ethical requirements related to the engagement. We believe that the evidence we have obtained is sufficient and appropriate to provide a reasonable basis for our conclusion.

#### *Responsibilities for the Statement*

Management of the New York Power Authority is responsible for:

- designing, implementing and maintaining internal control relevant to the preparation of the Statement such that it is free from material misstatement, whether due to fraud or error;
- selecting or developing suitable criteria for preparing the Statement and appropriately referring to or describing the criteria used; and
- preparing the Statement in accordance with the Criteria.

#### *Inherent limitations in preparing the Statement*

As described in Note 1 of the Statement ('Measurement Uncertainties'), emissions data included in the Statement of GHG Emissions are subject to measurement uncertainties resulting from limitations inherent in the nature and the methods used for determining such data. The selection of different but acceptable measurement techniques can result in materially different measurements.



*Our responsibilities*

The attestation standards established by the American Institute of Certified Public Accountants require us to:

- plan and perform the review to obtain limited assurance about whether any material modifications should be made to the Statement in order for it to be prepared in accordance with the Criteria; and
- express a conclusion on the Statement based on our review.

*Summary of the work we performed as the basis for our conclusion*

We exercised professional judgment and maintained professional skepticism throughout the engagement. We designed and performed our procedures to obtain evidence that is sufficient and appropriate to provide a basis for our conclusion. Our procedures selected depended on our understanding of the Statement and other engagement circumstances, and our consideration of areas where material misstatements are likely to arise. In carrying out our engagement, we performed procedures that consisted primarily of:

- inquiring of management to obtain an understanding of the methodologies and inputs used in preparing the Statement and deriving the metrics;
- inspecting a selection of supporting documentation;
- recalculating a selection of the metrics based on the Criteria and considering the appropriateness of the emissions factors used;
- performing analytical procedures; and
- evaluating disclosures for consistency with the Criteria.

The procedures performed in a review vary in nature and timing from, and are substantially less in extent than, an examination, the objective of which is to obtain reasonable assurance about whether the subject matter information is prepared in accordance with the criteria, in all material respects, in order to express an opinion. Because of the limited nature of the engagement, the level of assurance obtained in a review is substantially lower than the assurance that would have been obtained had an examination been performed.

*KPMG LLP*

New York, New York  
July 18, 2024

**New York Power Authority**  
**Statement of Greenhouse Gas Emissions**  
**For the Year Ended December 31, 2023**

Metric Description	Metric Tons Carbon Dioxide Equivalent (CO <sub>2</sub> e)	
	20-Year GWP	100-Year GWP
Scope 1 Greenhouse Gas Emissions	1,795,235	1,797,507
Scope 2 Greenhouse Gas Emissions (Location-Based) <sup>2</sup>	39,063	38,975
Scope 2 Greenhouse Gas Emissions (Market-Based) <sup>2</sup>	39,063	38,974
<b>Total Scope 1 &amp; 2 Emissions (Market-Based)</b>	<b>1,834,298</b>	<b>1,836,481</b>
Scope 3 Cat 3 - Upstream Fuel & Energy Related Activities <sup>1</sup>	6,839,130	5,428,374
Scope 3 Cat 6 - Employee Business Travel	782	805
Scope 3 Cat 7 - Employee Commuting	5,555	5,545
<b>Total Reported Scope 3 Greenhouse Gas Emissions</b>	<b>6,845,467</b>	<b>5,434,724</b>

See accompanying Notes to the Statement of Greenhouse Gas Emissions.

<sup>1</sup> The Scope 3 Category 3 – Upstream Fuels & Energy Related Activities include emissions from Purchased Electricity for Sale of 4,006,964 mt CO<sub>2</sub>e (20-year GWP); and 3,998,424 mt CO<sub>2</sub>e (100-year GWP).

<sup>2</sup> The Scope 2 emissions from transmission line loss for 2023 were 36,463 mt CO<sub>2</sub>e (20-Year GWP) and 36,379 mt CO<sub>2</sub>e (100-Year GWP).

**New York Power Authority**  
**Statement of Greenhouse Gas Emissions**  
**For the Year Ended December 31, 2023**

**Note 1: The Authority**

**Organization**

The New York Power Authority (the “Authority” or “NYPA”) is the largest state electric utility in the country, operating 17 generating facilities and more than 1,550 circuit-miles of transmission lines.

The New York State Canal Corporation (“Canals”), a subsidiary of NYPA since 2017, oversees the operation, maintenance, and promotion of the 524-mile New York State Canal System (“Canal System”). The Canal System includes the Erie, Champlain, Oswego, and Cayuga Seneca Canals, and links the Hudson River with the Great Lakes, the Finger Lakes and Lake Champlain. It also includes the 365-mile Canalway Trail, which follows original towpaths running from Albany to Buffalo and from Albany to Whitehall and is part of the 750-mile Empire State Trail—the nation’s longest multi-use recreational trail network.

**Basis of Presentation**

The Authority has prepared its Statement of Greenhouse Gas (“GHG”) Emissions for the year ended December 31, 2023, in accordance with the World Resources Institute and World Business Council for Sustainable Development’s Greenhouse Gas Protocol (collectively, the “GHG Protocol”) standards and guidance:

- Scope 1 and certain categories of Scope 3 emissions have been prepared in accordance with the GHG Protocol: A Corporate Accounting and Reporting Standard, Revised Edition
- Scope 2 emissions have been prepared in accordance with the GHG Protocol Scope 2 Guidance: An amendment to the GHG Protocol Corporate Standard.

In addition, the Authority has followed the guidance in Global Reporting initiative (GRI) Standards 305-1, Direct (Scope 1) GHG emissions, and 305-2, Energy indirect (Scope 2) GHG emissions.

**Organizational Boundary**

The Authority employs an operational control approach to define the organizational boundary. The operational control approach means that the Authority includes GHG emissions from all entities or assets it has the full authority to introduce and implement its operating policies. GHG emissions from these entities or assets are included within its Scope 1 and 2 GHG emissions inventory.

## Measurement Uncertainties

The Authority bases its estimates and methodologies on historical experience, available information, and various other assumptions that it believes to be reasonable. Emissions data included in the Statement of GHG Emissions are subject to measurement uncertainties resulting from limitations inherent in the nature and the methods used for determining such data. The selection of different but acceptable measurement techniques can result in materially different measurements. The precision of different measurement techniques may also vary.

## Operational Boundaries

Emissions are calculated and presented independent of any GHG trades such as sales, purchases, transfers or banking of allowances.

### a. Scope 1 Emissions

The Authority's Scope 1 emissions are direct emissions from the combustion of fossil fuel from sources inside the organizational boundary. The Authority does not have any biogenic sources of emissions.

Source	Boundary Description
Stationary combustion	Power-generating combustion turbines, auxiliary engines, generators, pumps, and boilers
Mobile combustion	Mobile equipment, vehicles, marine vessels, and corporate aircraft under the Authority's operational control
Fugitive emissions	Accidental leaks from insulating gas-filled transmission equipment, air conditioning appliances, and refrigeration equipment

### b. Scope 2 Emissions

The Authority's Scope 2 emissions are indirect emissions from the generation of acquired and consumed electricity occurring at sources outside of the organizational boundary as a consequence of activities from sources inside the organizational boundary. Emissions of electricity lost during the transmission of all power excluding self-generated power are included in the Authority's Scope 2 emissions as these losses occur on transmission lines owned by NYPA. Transmission line losses from self-generated electricity are excluded as it is already accounted for in Scope 1 emissions.

Source	Boundary Description
Purchased and consumed electricity	Owned and leased office spaces, inventory storage facilities, power generation and transmission facilities, and visitor centers
Transmission line losses	All power excluding self-generated power on owned lines

### c. Scope 3 Emissions

Scope 3 emissions are indirect emissions from the generation of fuel from sources outside the organizational boundary as a consequence of NYPA's activities. The Authority has elected to include three categories of Scope 3 emissions in its Statement of GHG Emissions while seeking to expand its processes to support measuring and reporting for other relevant Scope 3 categories in the future.

The Scope 3 emissions included have been calculated (but are not presented) in accordance with the GHG Protocol: Corporate Value Chain (Scope 3) Accounting and Reporting Standard and following the GHG Protocol Technical Guidance for Calculating Scope 3 Emissions.

Source	Boundary Description
Category 3, fuel- and energy-related activities not included in Scope 1 or Scope 2	Emissions related to the production of fuels and energy purchased, consumed, and purchased electricity for resale that are not included in Scope 1 or Scope 2.
Category 6, business travel	Emissions from the transportation of employees <sup>2</sup> for business related activities in vehicles owned or operated by third parties, such as aircraft, trains, buses, passenger cars, and hotel stays.
Category 7, employee commuting	Emissions from the transportation of employees between their homes and their worksites. Emissions from employee commuting include emissions from teleworking (i.e., employees working remotely) in this category.

### Emissions per Gas

All GHG emissions figures are presented in absolute metric tons and in metric tons of carbon dioxide equivalent ("CO<sub>2</sub>e") using the 100-year GWP. The Statement of GHG Emissions includes the following greenhouse gases: carbon dioxide ("CO<sub>2</sub>"), methane ("CH<sub>4</sub>"), nitrous oxide ("N<sub>2</sub>O"), sulfur hexafluoride ("SF<sub>6</sub>"), and hydrofluorocarbons ("HFCs"). The Authority excludes the reporting of perfluorocarbons ("PFCs"), hydrochlorofluorocarbon ("HCFCs"), and nitrogen trifluoride ("NF<sub>3</sub>") as they are not emitted in any operations within the operational boundaries.

Emissions data for GHGs in metric tons include Scope 1, 2, and 3 emissions. All amounts are for the year ended December 31, 2023.

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<sup>2</sup> All instances of "employees" refer to active permanent, provisional, and temporary employees, full-time and part-time on December 31, 2023.

<b>Gases in absolute metric tons</b>					
<b>Source of Emission</b>	<b>CO<sub>2</sub></b>	<b>CH<sub>4</sub></b>	<b>N<sub>2</sub>O</b>	<b>HFCs</b>	<b>SF<sub>6</sub></b>
Direct (Scope 1)	1,759,722	33	3	2	1
Energy Indirect (Scope 2) Location-based	38,874	2	0	NA	NA
Energy Indirect (Scope 2) Market-based	38,873	2	0	NA	NA
<b>Other Indirect (Scope 3)</b>	<b>4,827,458</b>	<b>23,928</b>	<b>30</b>	<b>NA</b>	<b>NA</b>
Category 3 - Upstream Fuel and Energy Related Activities	4,821,409	23,928	29	NA	NA
Category 6 – Employee Business Travel	535	0	1	NA	NA
Category 7 - Employee Commuting	5,513	0	0	NA	NA

<b>Gases in CO<sub>2</sub>-e metric tons (GWP-100 Year)</b>					
<b>Source of Emission</b>	<b>CO<sub>2</sub></b>	<b>CH<sub>4</sub></b>	<b>N<sub>2</sub>O</b>	<b>HFCs</b>	<b>SF<sub>6</sub></b>
Direct (Scope 1)	1,759,722	820	1,009	2,335	33,620
Energy Indirect (Scope 2) Location-based	38,874	40	61	NA	NA
Energy Indirect (Scope 2) Market-based	38,873	40	61	NA	NA
<b>Other Indirect (Scope 3)</b>	<b>4,827,458</b>	<b>598,210</b>	<b>9,055</b>	<b>NA</b>	<b>NA</b>
Category 3 - Upstream Fuel and Energy Related Activities	4,821,409	598,202	8,763	NA	NA
Category 6 - Business Travel	535	3	266	NA	NA
Category 7 - Employee Commuting	5,513	6	26	NA	NA

**Note 2: Measurement Methodologies**

**Greenhouse Gases**

**Scope 1**



Source	Method	Emission Factors	Inputs
Stationary Combustion	Activity-data	<ul style="list-style-type: none"> <li>Title 40, Code of Federal Regulations (“40 CFR”)<sup>3</sup></li> <li>2023 Environmental Protection Agency (“EPA”) Emission Factors for GHG Inventories</li> </ul>	<ul style="list-style-type: none"> <li>Fuel receipts</li> <li>Fuel purchase records</li> <li>Runtime hours</li> <li>Continuous Emissions Monitoring data</li> </ul>
Mobile Combustion	Distance-based Average-data	2023 EPA Emission Factors for GHG Inventories	<ul style="list-style-type: none"> <li>Fuel receipts</li> <li>Estimated distance data</li> <li>Vehicle year, mode of transport, and vehicle type</li> </ul>
Fugitive Emissions	Mass-balance	<ul style="list-style-type: none"> <li>40 CFR<sup>4</sup></li> <li>2023 EPA Emission Factors for GHG Inventories</li> </ul>	Maintenance records, incident reports, and purchase transactions

## Scope 2

Source	Method	Emission Factors	Inputs
Purchased and Consumed Electricity	Location-based Market-based Average-data	<ul style="list-style-type: none"> <li>Location based: 2023 EPA Emission Factors for eGRID Regions</li> <li>Market Based: 2023 Green-e® Residual Mix Emission Rates (2021 Data)</li> </ul>	<ul style="list-style-type: none"> <li>Utility meters</li> <li>Utility invoices</li> <li>Building square footage and average usage data from Commercial Building and Energy Consumption Survey estimates</li> </ul>

<sup>3</sup> 40 CFR, Table 1 to Appendix F of Part 75: F- and Fc -Factors; Table C-1 to Subpart C of Part 98: Default CO2 Emission Factors and High Heat Values for Various Types of Fuel (Nov. 29, 2013, as amended Dec. 9, 2016); Table C-2 to Subpart C of Part 98: Default CH4 and N2O Emission Factors for Various Types of Fuel (Nov. 29, 2013, as amended Dec. 9, 2016)

<sup>4</sup> 40 CFR, Subpart DD of Part 98 (Dec. 1, 2010)

Transmission Line Loss	Supplier-specific method  Activity-data	<ul style="list-style-type: none"> <li>2023 Environmental Protection Agency (EPA) Emission Factors for eGRID PLNT (NYISO)</li> </ul>	<ul style="list-style-type: none"> <li>Queried reports from NYISO DSS</li> <li>2023 RGGI compliance report</li> <li>AEII contracts</li> <li>2800 report</li> <li>Utility meters</li> </ul>
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### Scope 3

Source	Method	Emission Factors	Input
Category 3 – Fuel- and energy-related activities not included in Scope 1 or Scope 2	Activity-data	<ul style="list-style-type: none"> <li>2023 NYS Statewide GHG Emissions Report Appendix: Emission Factors for Use by State Agencies and Applicants per 6 NYCRR Part 496</li> <li>2023 EPA Emission Factors for eGRID PLNT (NYISO)</li> </ul>	<ul style="list-style-type: none"> <li>Fuel purchase receipts</li> <li>Fuel consumption data from Scope 1</li> <li>Electricity Consumption data from Scope 2</li> <li>Electricity purchased, wheeled, and purchased for sale data</li> </ul>
Category 6 – Business Travel	Distance-based  Spend-based	<ul style="list-style-type: none"> <li>2023 EPA Emission Factors for GHG Inventories (Scope 3)</li> <li>2022 US Environmentally-Extended Input-Output (USEEIO)</li> </ul>	<ul style="list-style-type: none"> <li>Air and train travel miles</li> <li>Personal car mileage</li> <li>Rental car spend</li> <li>Hotel stay spend</li> </ul>
Category 7 – Employee Commuting	Average-data  Distance-based	<ul style="list-style-type: none"> <li>2023 EPA Emission Factors for GHG Inventories (Scope 3)</li> <li>2023 EPA Emission Factors for eGRID PLNT (NYISO)</li> </ul>	<ul style="list-style-type: none"> <li>Employee headcount distribution</li> <li>Estimated days employees commute into the office</li> <li>Employee commuting travel miles (average)</li> </ul>

			data from national survey <sup>5</sup> ) <ul style="list-style-type: none"> <li>• Energy consumption data for workstation and heating and cooling</li> </ul>
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*Methodology Descriptions*

Activity-data method uses actual amounts of fuels or electricity consumed to calculate emissions and uses emission factors per unit of consumption.

Average-data method estimates activity data to calculate emissions and uses secondary emission factors per unit of consumption.

Spend-based method estimates emissions by collecting data on the financial spend of services and multiplying by relevant secondary industry emission factors.

Distance-based method estimates emissions using distance traveled and applying the appropriate mass-distance emission factor for the mode of transport used.

Location-based method estimates emissions based on grid-average emission factors for defined geographic locations.

Market-based method estimates emissions based on emission factors derived from the Green-e Residual mix since contractual or supplier-specific emission factors are not available.

Supplier-specific method uses NYPA specific data on transmission line and distribution loss rates on grids owned by NYPA to estimate the transmission line loss percentage applied to the transported electricity.

Mass-balance method estimates emissions by summing the SF<sub>6</sub> inventory quantity decrease and the SF<sub>6</sub> quantity acquired, then subtracting SF<sub>6</sub> disbursements.

**Global Warming Potentials**

The Authority’s GHG emissions are calculated using two different time horizons. The first is based on the Climate Leadership and Community Protection Act (“CLCPA”) GHG emission accounting requirements. The CLCPA format uses 20-year global warming potentials (“GWP”) from the International Panel on Climate Change (“IPCC”) *Fifth Assessment Report*. For purposes of reporting following the guidance in the GHG Protocol and GRI 305-1 and 305-2, 100-year GWP from the IPCC *Fourth Assessment Report* are also used.

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<sup>5</sup> Summary of Travel Trends: 2022 National Household Travel Survey, released January 2024.