

Chapter 3. New York’s Climate Leadership

New York continues to set an international precedent for addressing climate change. This is only possible because so many diverse minds and tireless leaders are united in a common cause. Recognizing the complexity of the economywide transition and the imperatives to mitigate the worst scenario projections of a warming global climate, New York stands ready to continue its legacy of climate leadership. This Scoping Plan incorporates new, innovative strategies and expands upon existing efforts to combat the systemic risks associated with the impacts of a changing climate while also addressing the disproportionate impacts on historically marginalized communities.

3.1 Landmark Accomplishment of the Climate Act and Key Components of the Legislation

On July 18, 2019, the Climate Leadership and Community Protection Act (the Climate Act) was signed into law.¹² This historic legislation cements the State’s position as a leader in combating climate change. This act, which became effective on January 1, 2020,¹³ builds upon the State’s clean energy and GHG emission reduction policies described above, codifying critical goals as statutory requirements. The Climate Act will have far-reaching effects across all areas of the environment and economy.

The implementation of the Climate Act requires a significant regulatory undertaking by the Department of Environmental Conservation (DEC) as well as substantial action by the New York State Energy

New York’s Nation-Leading Climate Directives

- 40% reduction in GHG emissions by 2030
- 85% reduction in GHG emissions by 2050
- 100% zero-emission electricity by 2040
- 70% renewable energy by 2030
- 9,000 MW of offshore wind by 2035
- 3,000 MW of energy storage by 2030
- 6,000 MW of solar by 2025
- 185 trillion Btu of end-use energy savings

Research and Development Authority (NYSERDA), the Public Service Commission (PSC), and other State agencies and authorities. These efforts will be informed by the Climate Action Council (Council), this Scoping Plan, and, recognizing the importance of ensuring a just transition, essential groups that are focused on environmental justice issues.

¹² Chapter 106 of the Laws of 2019.

¹³ Climate Act § 14; Chapter 735 of the Laws of 2019.

For the next several years and beyond, the implementation of the Climate Act necessitates an all-hands-on-deck approach across State government, with input from a broad array of stakeholders, technical advisors, and experts. This section provides a summary of key provisions of the Climate Act as well as a description of the key milestones and implementation steps thus far.

Summary of Key Provisions

GHG Emission Reduction Requirements

The heart of the Climate Act is the addition of Article 75 to the Environmental Conservation Law (ECL), which, among other things, directs DEC to establish statewide greenhouse gas (GHG) emission limits, requiring a 40% reduction in statewide GHG emissions from 1990 levels by 2030 and an 85% reduction by 2050.¹⁴ The Climate Act also establishes a goal of net zero emissions across all sectors of the economy by 2050.¹⁵ Within four years of the effective date, the Climate Act requires DEC to promulgate regulations to ensure compliance with such statewide GHG emission limits.¹⁶

Clean Energy Generation Requirements

In addition to ECL Article 75 and its essential GHG emission reduction requirements, the Climate Act adds a new § 66-p to the Public Service Law, which requires the PSC to establish a program to decarbonize the electric sector. Specifically, the program must have two targets: 70% of the State's electricity deriving from renewable¹⁷ energy by 2030 (70x30) and 100% zero-emission energy by 2040 (100x40).¹⁸ The Public Service Law provisions also codify previously existing ambitious clean energy goals, including a requirement for the procurement of at least 9,000 megawatts (MW) of offshore wind by 2035, 6,000 MW of distributed solar generation by 2025, and 3,000 MW of energy storage by 2030.¹⁹

¹⁴ ECL § 75-0107(1). As set forth in the Climate Act, statewide GHG emissions include all emissions of GHGs from sources within the state, as well as GHGs produced outside the State but associated with either the generation of electricity imported into the State or the extraction and transmission of fossil fuels imported into the state. ECL § 75-0101(13).

¹⁵ ECL § 75-0103(11).

¹⁶ ECL § 75-0109.

¹⁷ PSL § 66-p(1)(b).

¹⁸ PSL § 66-p(2).

¹⁹ PSL § 66-p(5).

Council and Advisory Panels

Critical to the implementation of the Climate Act is the 22-member Council,²⁰ made up of the heads of various State agencies, as well as other members appointed by the governor and the New York State Legislature.²¹ The co-chairs of the Council are the DEC commissioner and the NYSERDA president.²² The Council includes Advisory Panels for particular subject areas including waste, transportation, energy-intensive and trade-exposed (EITE) industries, land use and local government, energy efficiency and housing, power generation, and agriculture and forestry.²³

The Council was charged with developing this Scoping Plan, which provides recommendations for achieving the statewide GHG emission limits, including regulatory measures.²⁴ The Council consulted with the Advisory Panels for subject-matter expertise when developing recommendations in the 2021 draft Scoping Plan.²⁵ This final Scoping Plan was developed after continued Council deliberations and extensive public input. The Scoping Plan will be reviewed and updated at least every five years.²⁶

Environmental and Climate Justice Provisions

Notably, the Climate Act recognizes historically Disadvantaged Communities and the fact that these communities suffer disproportionate and inequitable impacts from climate change and therefore establishes mechanisms to ensure that these communities benefit from the Climate Act. This includes a requirement that Disadvantaged Communities receive at least 35% of the overall benefits of spending on clean energy and energy efficiency programs, with a goal of 40%.²⁷

The Climate Act also creates the Climate Justice Working Group (CJWG) within DEC, which comprises representatives from environmental justice communities and State agencies.²⁸ Per the Climate Act, the CJWG established criteria to define and identify Disadvantaged Communities. During development of the 2021 draft Scoping Plan and this final Scoping Plan, the CJWG advised the Council to ensure that

²⁰ ECL § 75-0103.

²¹ ECL § 75-0103(1).

²² ECL § 75-0103(4).

²³ ECL § 75-0103(7).

²⁴ ECL §§ 75-0103(11)-(14).

²⁵ ECL § 75-0103(7).

²⁶ ECL § 75-0103(15).

²⁷ ECL § 75-0117.

²⁸ ECL § 75-0111.

Disadvantaged Communities are considered in the implementation of the Climate Act.²⁹ This is in addition to input from the Just Transition Working Group (JTWG) within the Council.³⁰

The Climate Act establishes a community air monitoring program to identify locations to deploy community air monitoring systems, to develop a strategy to reduce toxic and criteria air pollutant emissions in Disadvantaged Communities, and to select communities around the State in which to implement emissions reduction programs.³¹ The Climate Act also requires State agencies to ensure that permitting, licensing, contracting, and other approvals and decisions will not disproportionately burden Disadvantaged Communities and to prioritize reductions of GHG emissions and co-pollutants in Disadvantaged Communities.³²

Other Provisions

As previously noted, the Climate Act requires an all-hands-on-deck approach across State government, and various provisions affect all State agencies and their decision-making. Further, the Climate Act directs all State agencies to reduce their GHG emissions and gives them the authority to promulgate GHG emissions regulations to help achieve the statewide GHG emission limits.³³ The Climate Act also requires state agencies to consider GHG emissions and limits in permitting, licensing, contracting, and other approvals and decisions, and that wherever such decisions are deemed inconsistent or would interfere with the statewide GHG emission limits, State agencies must provide a detailed statement of justification for the action, notwithstanding the inconsistency, and identify alternatives or GHG mitigation measures.³⁴ The Climate Act also expands the scope of the existing Community Risk and Resiliency Act (CRRRA),³⁵ including by covering additional DEC permitting programs such as State Pollutant Discharge Elimination System permitting and Air Pollution Control permitting, and by allowing State agencies and other entities to require mitigation of climate risks, including adverse impacts on Disadvantaged Communities.³⁶

²⁹ ECL § 75-0111; ECL §§ 75-0103(10), (12).

³⁰ ECL §§ 75-0103(8), (12).

³¹ ECL § 75-0115.

³² Climate Act § 7(3).

³³ Climate Act §§ 7(1) and 8.

³⁴ Climate Act § 7(2).

³⁵ Chapter 355 of the Laws of 2014.

³⁶ Climate Act § 9.

Key Milestones and Implementation Steps To-Date

The Council released the draft Scoping Plan in 2021, and it served as the foundation for this final Scoping Plan. This Plan describes measures and other State actions to ensure attainment of the statewide GHG emission limits and net zero emissions goal. The statewide GHG emission limit rulemaking is the first regulatory action to implement the Climate Act, the foundation for multiple components of the Climate Act and critically important for successful implementation of the Climate Act. DEC promulgated 6 NYCRR Part 496 that established the two statewide GHG emission limits called for in the Climate Act: a limit for 2030 that is equal to 60% of 1990 GHG emission levels and a limit for 2050 that is equal to 15% of 1990 emission levels.

Specifically, using a 20-year global warming potential (GWP) and including upstream emissions from fossil fuels imported into New York as required by the Climate Act, the statewide GHG emission limit for 2030 is 245.87 million metric tons (MMT) of carbon dioxide equivalent (CO₂e), and the statewide GHG emission limits for 2050 is 61.47 MMT CO₂e.³⁷ DEC, in consultation with NYSERDA, continues to update the inventory of GHGs and will publish an annual statewide GHG emissions report that reflects these updates.

Further, DEC, in consultation with NYSERDA, established the Value of Carbon guidance to help State agency decision-making by placing a monetary value for the avoided emissions of GHGs.³⁸ The Value of Carbon guidance provides metrics that may be broadly applicable to actions by all State agencies and authorities—such as benefit-cost analyses, rulemaking processes, environmental assessments, and demonstrations of the benefits of climate change policies—to demonstrate the global societal value of actions to reduce GHG emissions. The guidance recommends a procedure for using a damages-based value of carbon along with a general review of the marginal abatement cost approach and recommends the use of a central discount rate of 2%, which should be reported alongside a 1% and 3% discount rate for informational purposes. For example, use of the 2% central discount rate translates into a 2020 central value of carbon dioxide (CO₂) of \$121 per ton, methane of \$2,700 per ton, and nitrous oxide (N₂O) of \$42,000 per ton. DEC updated the Value of Carbon guidance in 2022 to add values for hydrofluorocarbons (HFCs), revise the text to describe these values, and provide an example.

³⁷ 6 NYCRR § 496.4.

³⁸ ECL § 75-0113; New York State Department of Environmental Conservation. 2021. Establishing a Value of Carbon: Guidelines for Use by State Agencies. Accessed at https://www.dec.ny.gov/docs/administration_pdf/vocguidrev.pdf.

The Climate Act solidifies New York’s status as a climate leader. It establishes the country’s—and perhaps even the planet’s—strongest GHG emission reduction and clean energy requirements. Though the scale of the effort to implement the Climate Act is enormous, so is the challenge it is meant to address. Successful implementation of the Climate Act will not only provide direct environmental and economic benefits for the State, it will also serve as a model for other jurisdictions to address climate change.

3.2 Overview of New York’s Climate Policies

The enactment of the Climate Act and the development of this Scoping Plan builds upon decades of New York’s climate leadership at all levels. New York voters have also shown their support for environmental initiatives in recent years. In 2021, voters approved an amendment to the New York State Constitution with 70% of the vote, granting New Yorkers the right to “clean air, clean water, and a healthful environment.” In 2022, New York voters approved a \$4.2 billion Environmental Bond Act with 68% of the vote. The “Clean Water, Clean Air, and Green Jobs” Environmental Bond Act will provide funds to support the implementation of the Climate Act through GHG mitigation projects and other initiatives such as open space conservation, flood risk reduction, and continued funding for resilient infrastructure. The Bond Act is also aligned with the environmental justice provisions of the Climate Act in that Disadvantaged Communities must receive at least 35% of the benefit of the funds, with a goal of 40%.³⁹ The implementation of strategies in this Scoping Plan will be guided by past successes and informed by lessons learned here in New York and in other jurisdictions.

Executive Leadership

Governor Kathy Hochul signed the nation-leading Executive Order 22, *Leading by Example: Directing State Agencies to Adopt a Sustainability and Decarbonization Program, 2022*, to accelerate efforts to make State operations more sustainable. Through the Executive Order, the GreenNY Council will ensure that State agencies follow best practices in green purchasing and in their operations by building upon current green purchasing specifications and operational directives as well as by strengthening and issuing new specifications. Several strategies in this Scoping Plan align with this Executive Order. Required annual reporting from agencies and authorities will help ensure that the goals of the Executive Order are achieved.

³⁹ ECL § 58-1101.

The 2022 State of the State address directed DEC and NYSERDA to develop an Extreme Heat Action Plan in response to more frequent and intense extreme heat events driven by climate change.

Governor Hochul announced that State agencies and authorities, representing an estimated \$50 billion in investments, have committed to achieving net zero in their investment portfolios by 2040. This ensures New York's financial resources are aligned with the Climate Act. In September 2022, agencies and authorities submitted action plans outlining their path to a net zero investment portfolio.

DEC's Commissioner's Policy 49 (CP-49), revised December 14, 2022, provides guidance to agency divisions, offices, and regions regarding the incorporation of climate change considerations into agency activities. CP-49 was drafted to reflect the requirements of Sections 7 and 9 of the Climate Act. DEC's program policy Division of Air Resources 21 provides further guidance on Section 7(2) of the Climate Act regarding air pollution control permit applications.

New York signed a medium- and heavy-duty (MHD) zero-emission vehicles (ZEVs) Memorandum of Understanding on July 14, 2020, along with 14 other states and Washington, D.C., committing to work collaboratively to advance and accelerate the market for electric MHD vehicles. The mutual goal is to ensure that 100% of all new MHD vehicle sales will be zero-emission by 2050, with an interim target of 30% MHD ZEV sales by 2030. This Memorandum of Understanding builds off the success of the 2013 light-duty ZEV Memorandum of Understanding and the Multi-State ZEV Taskforce and Action Plans.

The Health Across All Policies Initiative (Executive Order 190, 2018) developed the necessary network and communications between agencies to address and improve public and individual health through collaborative efforts to address social determinants of health, like air quality, housing, and access to affordable energy.

Regulatory Action

Governor Hochul directed DEC to adopt regulations that will require all new passenger cars, pickup trucks, and SUVs sold in New York State be zero-emission by 2035 and be modeled on California's Advanced Clean Cars II regulation finalized in 2022.

Advanced Clean Trucks (DEC 6 NYCRR Part 218 Regulation), adopted in 2021, incorporated California's Advanced Clean Truck zero-emission vehicle standards for MHD trucks as well as large entity reporting requirements for owners and operators of MHD trucks as part of New York's existing low emission vehicle program.

Oil and Natural Gas Sector regulations (DEC 6 NYCRR Part 203 Regulations), adopted and effective in 2022 to support the goals and requirements of the Climate Act, lowers methane and volatile organic compound (VOC) emissions for sources in New York’s oil and natural gas sector.

Hydrofluorocarbon Standards and Reporting (DEC 6 NYCRR Part 494 Regulations) prohibits specific HFCs, potent GHGs in certain refrigerants, aerosol propellants, and foam-blowing agent end uses that represent avoidable HFC emissions where safer alternatives are available. In 2022, DEC began pre-proposal stakeholder outreach to update Part 494 to reflect the Scoping Plan recommendations.

Food Donation and Food Scraps Recycling (DEC 6 NYCRR Part 350 Regulations), adopted in 2022 pursuant to ECL Article 27, Title 22, requires large generators of food scraps to donate excess edible food and to recycle all remaining food scraps if they are located within 25 miles of an organics recycler, which will reduce methane and VOC emissions in support of the goals and requirements of the Climate Act.

Taxation of Forest Land (DEC Proposed 6 NYCRR Part 199 Regulations), proposed in 2022, seeks to improve the Forest Tax Law program by lessening administrative burdens while strengthening the sustainable forest management standards.

Projected Sea-Level Rise (DEC 6 NYCRR Part 490 Regulations), finalized in early 2017, establishes statewide sea-level rise projections for use in the consideration of permits and other decision-making processes specified under CRRA. Under CRRA, DEC is required to update these sea-level rise projection regulations at least every five years.

Regional Greenhouse Gas Initiative (RGGI; DEC 6 NYCRR Part 242 Regulations and NYSERDA 21 NYCRR Part 507) is the first mandatory market-based emissions trading program in the United States to reduce CO₂ emissions and the first anywhere to use the cap-and-invest model for reducing pollution. New York and other RGGI-participating states set a cap for total emissions of CO₂ from electric generation facilities in the region. Each state implements the program through its own regulations, which include emissions budgets in individual RGGI-participating states that are equal to shares of the regionwide cap. The RGGI cap declines over time, gradually lowering CO₂ emission limits.

Legislation

Chapter 628 of the Laws of 2022 established a two-year moratorium on the issuance of certain permits by DEC for cryptocurrency mining operations that use behind-the-meter electricity and proof-of-work

authentication methods to validate blockchain transactions. This law directs DEC, in consultation with the New York State Department of Public Service (DPS), to prepare a generic environmental impact statement on this type of cryptocurrency mining operation.

Chapter 563 of the Laws of 2022 directs DEC to study the impacts of disproportionate heat conditions, otherwise known as urban heat islands, in Disadvantaged Communities.

Chapter 375 of the Laws of 2022 (Utility Thermal Energy Network and Jobs Act) requires the PSC to develop a regulatory structure for utility thermal energy networks, including district geothermal and other community-scale thermal infrastructure projects, for heating and cooling homes and to direct utilities to launch pilot projects in their service territories.

Chapter 374 of the Laws of 2022 (Advanced Building Codes, Appliance and Equipment Efficiency Standards Act of 2022) bolsters New York’s regulatory and policy environment to support energy efficiency and GHG reduction strategies in buildings, expanded appliance standards, and changed building code law to allow the utilization of certain HFC substitutes.

Chapter 372 of the Laws of 2022 requires prevailing wage for renewable energy projects one megawatt and larger that involve the procurement of renewable energy credits from a public entity.

Chapter 724 of the Laws of 2021 established procurement guidelines for low-embodied carbon concrete.

Chapter 423 of the Laws of 2021, as amended by Chapter 109 of the Laws of 2022, related to ZEV sales states that new non-road vehicles and equipment sold in New York are targeted to be zero-emissions by 2035 and that new MHD vehicles sold in New York are targeted to be zero-emissions by 2045.

Chapter 58 of the Laws of 2020 established the Accelerated Renewable Energy Growth and Community Benefit Act as part the State Fiscal Year 2020–2021 budget to dramatically speed up the siting and construction of clean energy projects to combat climate change and help jumpstart the State’s economic recovery from the COVID-19 health crisis. This law created a first-in-the-nation Office of Renewable Energy Siting (ORES) to improve and streamline the process for the environmentally responsible and cost-effective siting of large-scale renewable energy projects across New York, while also delivering significant benefits to local communities. This law, which is being implemented by the New York State Department of State (DOS), NYSERDA, DPS, DEC, the New York Power Authority (NYPA), and

Empire State Development (ESD), will accelerate progress toward New York’s nation-leading clean energy and climate mitigation requirements, including the mandate to obtain 70% of the State’s electricity from renewable sources, as identified under the Climate Act.

Chapter 59 of the Laws of 2019 established the Metropolitan Transportation Authority (MTA) Reform & Traffic Mobility Act (Congestion Pricing) that directs MTA to design, develop, build, and run a toll program that applies to vehicles that enter or remain in Manhattan’s Central Business District. The purpose of the program is to reduce congestion and enhance mobility in Manhattan’s Central Business District. By reducing traffic and helping improve mass transit, the program would improve air quality and enhance equity by expanding access. MTA held public hearings on the proposal in fall 2021 and is undergoing an environmental assessment pursuant to the National Environmental Policy Act.

Chapter 355 of the Laws of 2014 established New York CRRA to build New York’s resilience to rising sea levels and extreme flooding. The Climate Act made modifications to CRRA, expanding the scope of climate hazards and projects for consideration, which became effective January 1, 2020. As part of the implementation of CRRA, DEC, in consultation with DOS and other stakeholders, developed the *New York State Flood Risk Management Guidance 1* to help ensure the health, safety, and well-being of New Yorkers now and in the future.⁴⁰

Chapter 388 of the Laws of 2011 established the Power NY Act, which directed DEC to promulgate rules and regulations limiting emissions of CO₂ by newly constructed major generating facilities. DEC adopted 6 NYCRR Part 251 in 2012, setting CO₂ emission limits that effectively prohibited new coal-fired power plants. In 2018, DEC adopted further revisions to this regulation applicable to existing facilities, effectively phasing out all remaining coal-fired power plants in the State. The last coal-fired power plant in the State was closed in 2020.

Chapter 433 of the Laws of 2010 established the State Smart Growth Public Infrastructure Policy Act, ECL Article 6, prohibiting a state infrastructure agency from approving, undertaking, supporting, or financing a “public infrastructure project” unless, to the extent practicable, the project is consistent with 11 smart growth criteria.

⁴⁰ New York State Department of Environmental Conservation. 2020. *New York State Flood Risk Management Guidance for Implementation of the Community Risk and Resiliency Act, Estimating Guideline Elevations*. Albany. Accessed at https://www.dec.ny.gov/docs/administration_pdf/crraestelevguidelines.pdf.

Chapter 433 of the Laws of 2009 related to the State Energy Planning Board reauthorizes Article Six of the Energy Law, regarding energy planning requiring comprehensive studies of the State’s energy needs.

Programmatic Action

Several agencies have existing programs related to renewable energy, climate resilience and adaptation, and overall climate change mitigation. New York’s Reforming the Energy Vision, including the NY-Sun program, the Clean Energy Standard (CES), Evolve NY, Drive Clean Rebates, Clean Energy Communities, and the Clean Energy Fund are all examples of existing climate leadership.

In addition, Climate Smart Communities is a multi-agency program that helps local governments take action to reduce GHG emissions and adapt to a changing climate, including grants for climate mitigation and adaptation projects, ZEV vehicles, and ZEV infrastructure. Charge NY is a multi-agency initiative aiming to create a statewide network of up to 3,000 public and workplace charging stations and to put up to 40,000 plug-in vehicles on the road. And, in an example of multi-state cooperation, the Engineering Department of the Port Authority of New York and New Jersey (PANYNJ) Climate Resilience Design Guidelines, produced in 2015, ensure that new port authority infrastructure and buildings are designed to account for projected changes in temperature, precipitation, and sea level. The guidelines provide PANYNJ architects and engineers with a framework for evaluating the vulnerability of projects to future climate impacts and addressing those impacts in the design of port authority infrastructure and buildings.⁴¹

In response to the 2022 State of the State directive to produce an Extreme Heat Action Plan, DEC and NYSERDA convened an interagency work group that is discussed further in *Chapter 21. Adaptation and Resilience*.

New York stands ready to deliver the results necessary to avoid the most catastrophic impacts of climate change while providing the necessary resources for New York to be more resilient and adaptable to the irreversible changes already embedded.

⁴¹ New York City Mayor’s Office of Resiliency. 2020. *Climate Resiliency Design Guidelines*. New York City. Accessed at https://www1.nyc.gov/assets/orr/pdf/NYC_Climate_Resiliency_Design_Guidelines_v4-0.pdf.