New York Cap & Invest (NYCI)

Overview and Role in New York's Climate Program

January 23, 2024

New York State Department of Environmental Conservation

New York State NYSERDA

Welcoming Remarks

- Basil Seggos, Commissioner
  NYS Department of Environmental Conservation

- Doreen M. Harris, President and CEO
  NYSERDA

Meeting Procedures

- Attendees will not be able to unmute or turn on video.
- Attendees will be able to submit questions via the Q&A feature. Select questions will be answered by panelists at the end of the presentation.
- If you can’t hear the presentation, you can configure your audio settings by clicking the arrow in the “audio” box.
- You can turn on closed captioning for the presentation and change the language of the captions.
- This webinar will be recorded.

Presentation Objectives

- In December, New York released a *Pre-Proposal Outline* and a *Climate Affordability Study* that provide a framework for **New York Cap-and-Invest** (NYCI) program design and distribution of benefits to help ensure the program results in declining emissions towards the Climate Act's targets.
- Today's presentation includes background about NYCI and its role in delivering New York's Climate program.
- Two additional webinars have been scheduled on Jan. 25 and 26.

The Pre-Proposal Outline presents current thinking about the three regulations which would be part of the NYCI suite of regulations

Phase 2 Webinars

Jan. 23 (today): NYCI Overview and Role in New York's Climate Program

Jan. 25, 1 to 4 p.m.: Pre-Proposal Outline Overview

Jan. 26, 11 a.m. to 2 p.m.: Preliminary Analysis Overview

Sign up for future webinars here: https://capandinvest.ny.gov/Meetings-and-Events

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Provide feedback and submit comments

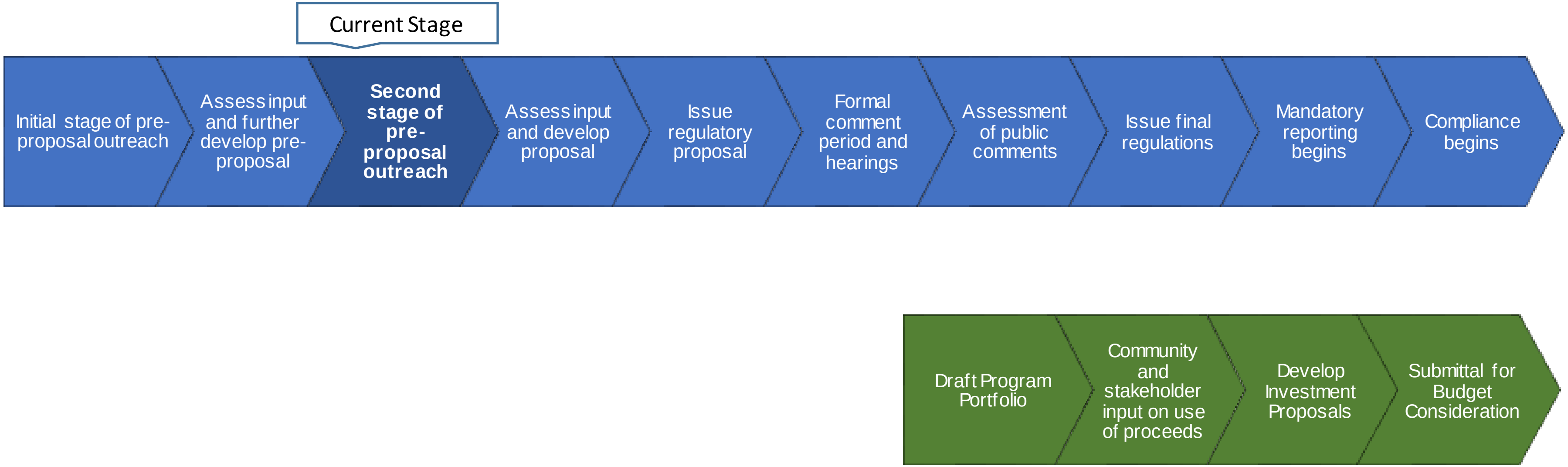
online at: www.capandinvest.ny.gov
by mail to: Bureau of Air Quality Planning
NYS DEC, Division of Air Resources
625 Broadway, Albany, NY 12233-3251

Agenda

- Climate Leadership & Community Protection Act
- The role of NYCI and how cap-and-invest works
- Delivering equitable benefits
- How to learn more and stay involved
- Questions and Answers

Climate Leadership & Community Protection Act

New York Cap-and-Invest (NYCI) Regulation Development Timeline



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Climate Act – Overview

Carbon neutral economy, requiring at least an

85% reduction below 1990 level of greenhouse gas emissions by 2050 and 40% reduction in emissions by 2030

- 100% zero-emissions electricity by 2040
- 70% renewable electricity by 2030
- 9,000 MW of offshore wind by 2035
- 6,000 MW of distributed solar by 2025
- 3,000 MW of energy storage by 2030
- 185 TBtu on-site energy savings by 2025

Commitments to climate justice and just transition

New York State Cap-and-Invest

The Climate Action Council's final Scoping Plan recommends - and Governor Hochul's 2023 State of the State Address and the FY 2024 State Budget advanced - an economywide Cap-and-Invest Program.

DEC and NYSERDA have been developing a proposal to help meet the Climate Act's requirements to reduce greenhouse gas emissions and advance equity – NYCI.

NYCI will work in concert with the State’s suite of other climate change and clean energy programs and policies.

Guiding Principles for NYCI

> **At Governor Hochul's direction, New York’s cap & invest program will incorporate these guiding principles:**

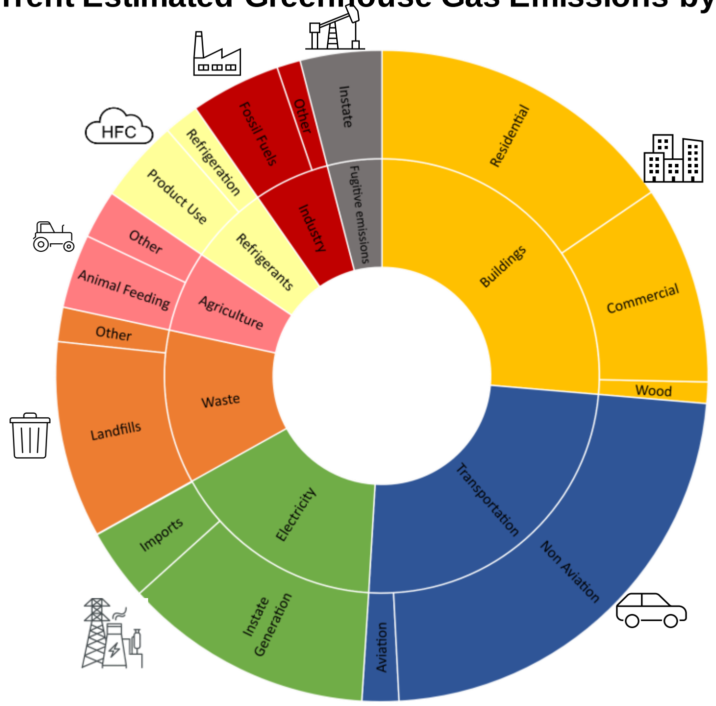
- ***Affordability***: Craft a program to deliver money back to New Yorkers to ensure energy affordability
- ***Climate Leadership***: Catalyze other states to join New York, and allows linkage to other jurisdictions
- ***Creating Jobs and Preserving Competitiveness***: Protect existing jobs and support new and existing industries in New York
- ***Investing in Disadvantaged Communities***: Ensure 35%+ of investments benefit Disadvantaged Communities
- ***Funding a Sustainable Future***: Support ambitious clean energy investment

NYCI is being designed to deliver on all five principles.

Introduction and Context

Greenhouse Gas Emission Reduction Requirements

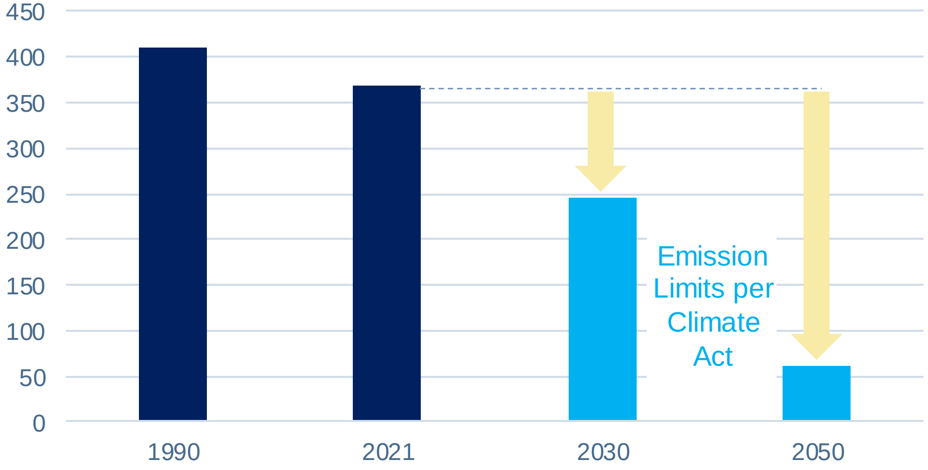
Current Estimated Greenhouse Gas Emissions by Sector



2021 Calendar Year Emissions: Based on 2023 Statewide Greenhouse Gas Emissions Report.

New York State Greenhouse Gas Emissions

($MMtCO_2e$)



Sources: New York State Greenhouse Gas Inventory; § 496.4 Statewide Greenhouse Gas Emission Limits

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The Role of NYCI

NYCI: Complemented by Variety of Emission Reduction Programs, Investments, and Regulations

The NYCI emissions cap helps to ensure that other programs deliver on their commitments and expectations

- Setting a value of carbon
- Environmental Bond Act
- EO 22
- DEC CP-49
- DAR-21
- DEP-23-1
- Well plugging program
- Clean Energy Standard
- Clean Energy Fund
- New Efficiency: New York

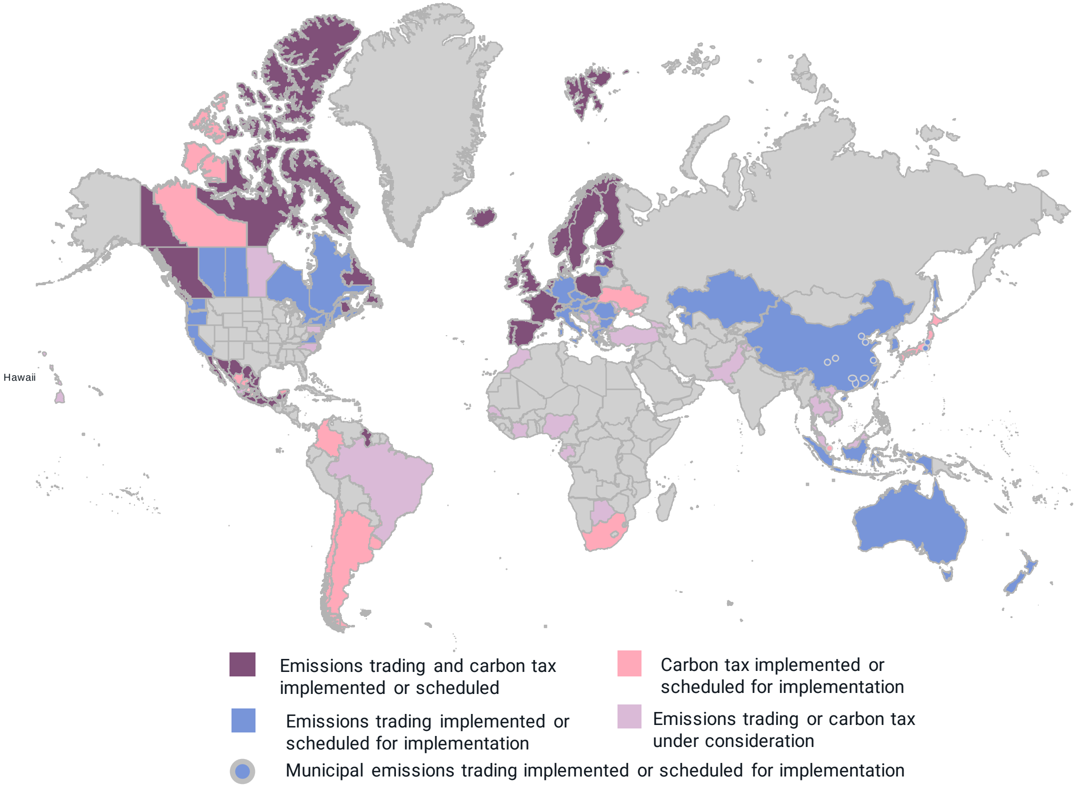
- Advanced Clean Trucks and
- Advanced Clean Cars II (Part 218)
- Oil & Gas (Part 203)
- Food Recycling (Part 350)
- Forest Land Taxation (Part 199)
- CO_2 Emission Limits (Part 251)
- RGGI (Part 242)
- HFCs (Part 494) and proposed expansion
- SF6 (proposed Part 495)

And more….

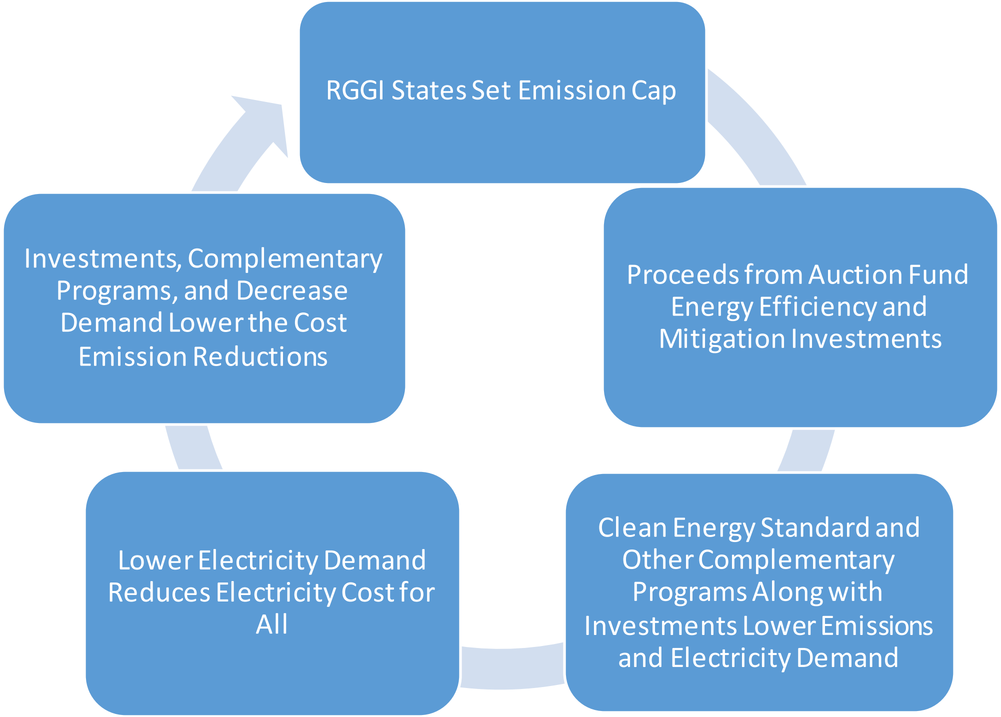
Role of NYCI

- New Yorkers are feeling the effects of climate change. In 2023 alone we experienced air choked with wildfire smoke, flooding in NYC and the Hudson Valley, extreme snowstorms in Buffalo, and more.
- Cap-and-invest and similar programs are internationally accepted as a core component of a credible decarbonization strategy.
- The Climate Action Council's Scoping Plan recommended cap-and-invest as the most cost-effective means of achieving decarbonization. Cap-and-invest ensures New York will minimize costs by reducing emissions first in sectors where it is cheapest to do so.
- NYCI pairs a disincentive for continued use of fossil fuels with robust funding to support the energy transition. It is an essential complement to existing investments and regulations intended to reduce emissions and drive a clean energy transition.

Cap-and-invest and similar pricing mechanisms are a well-tested mechanism for addressing climate change.



RGGI Success Story Provides an Example



- RGGI is an existing cap-and-invest program for the power sector, in New York and other states
- RGGI works in collaboration with other programs and investments to ensure emission reductions
- RGGI achieved 50% reduction in NY CO2 emissions from 2005 to 2022
- Generated $2.2 Billion in Proceeds Committed for Investments in NY

How Cap-and-Invest Works

New York's Cap-and-Invest Program – How it Works

Cap-and-Invest sets an annual limit on the amount of greenhouse gas emissions emitted in New York. Every year, the cap will be set lower to reduce greenhouse gas emissions.

GHGs

Large-scale greenhouse gas emissions sources and distributors of heating and transportation fuels will be required to purchase or obtain allowances for emissions associated with their activities.

The Program will prioritize frontline disadvantaged communities that have suffered from pollution as a result of environmental injustice and will ensure emissions reductions.

Proceeds will minimize potential consumer costs while supporting critical investments in focus areas such as climate mitigation, energy efficiency, and clean transportation.

Cap-and-Invest Guiding Principles:

- Affordability
- Climate leadership
- Creating jobs and preserving competitiveness
- Investing in disadvantaged communities
- Funding a sustainable future

Cap-and-Invest Program: How it Works

- Large-scale GHG emitters and distributors of heating and transportation fuels will be required to purchase allowances for the emissions associated with their activities.
- NYCI will incentivize businesses and other entities to transition to lower-carbon alternatives.
- Proceeds will support:
  - **Consumer Climate Action Account** that will deliver at least 30 percent in future Cap-and-Invest proceeds to New Yorkers every year to mitigate consumer costs.
  - **Industrial Small Business Climate Action Account** that will deliver up percent in proceeds to support energy affordability for small businesses.
  - **Climate Investment Account** that will direct two-thirds of future Cap-and-Invest proceeds to support the transition to a less carbon-intensive economy.

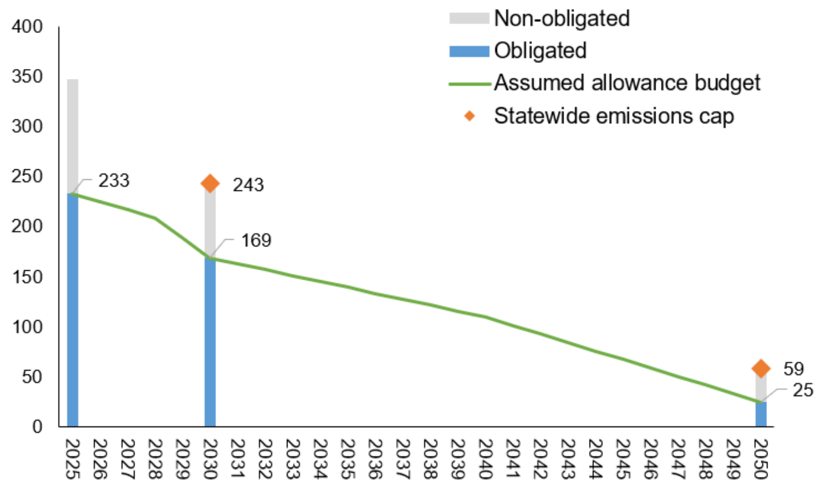
Cap-and-Invest Program: Achieving Emissions Limits

DEC and NYSERDA are designing a program that sets an annual cap on the amount of greenhouse gas pollution permitted to be emitted in New York.

In concert with other State programs and investments, the declining NYCI cap helps lower emissions, setting the state on a trajectory to meet our GHG emissions reduction requirements, as mandated by the Climate Act.

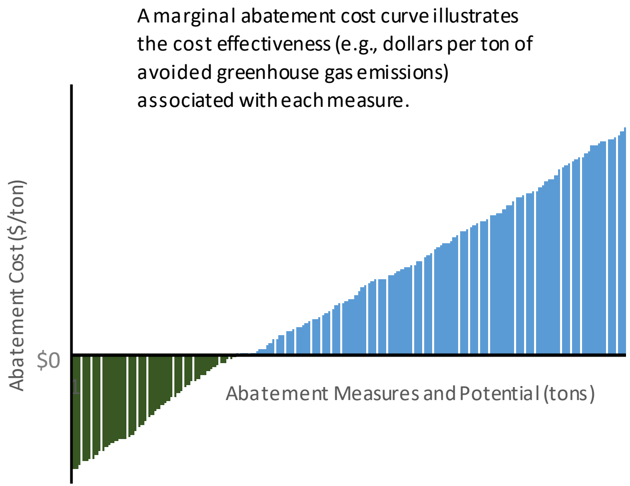
Illustrative

GHG emissions trajectory & modeled allowance budget (MMT CO_2e)



Many emission reductions are already cost effective

- Individuals and companies may already make choices that result in lower emissions (**green wedge**).
- Choices are made based on upfront costs, costs over time to operate, and other factors. **Example:** an LED lightbulb costs more up front but reduces electricity costs over time.
- Costs, both upfront and lifetime, may vary widely and can be analyzed and expressed as a **marginal abatement cost curve.**



Illustrative Marginal Abatement Cost Curve

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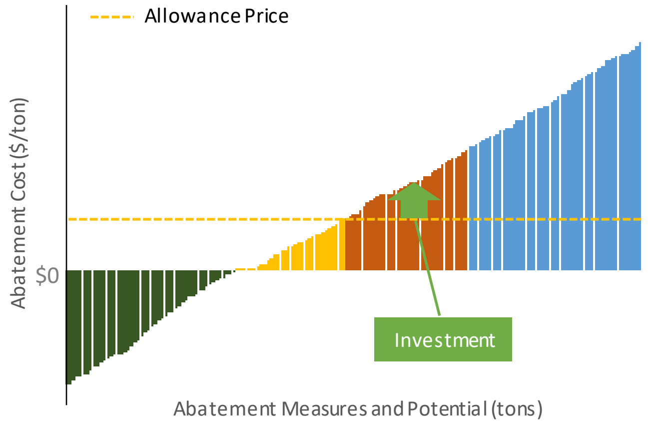
How Does Cap and Invest Work?

- Set the emissions target – we call this the "Cap"
- Compliance entities required to buy allowances to cover their emissions
- The State would auction allowances
- Allowances could be traded and banked
  - Trading allows entities with excess allowances to sell allowances to those who need them
  - Banking creates an incentive for earlier emissions reductions and helps maintain program stability in the event of unanticipated events

Because the cap is fixed, neither trading or banking increases emissions in aggregate, though it may change the dispersion and timing of emission reductions.

Cap-and-Invest Implementation

- When a program like NYCI is implemented, the following generally occur from an investment perspective:
  - Investment in pollution reductions become cost effective because it's cheaper to cut those emissions than purchase allowances (yellow wedge).
  - Proceeds from a program like NYCI can be invested in more pollution reducing measures and technology. The investments will give decision-makers even more of an incentive to choose to invest in decarbonization (orange wedge).



Illustrative Marginal Abatement Cost Curve

Incorporating Public Input

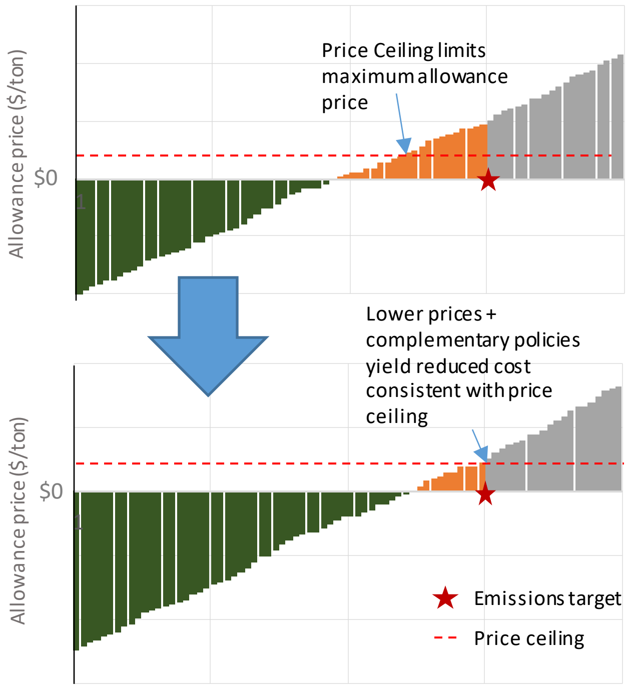
After extensive stakeholder engagement in 2023, DEC and NYSERDA received thousands of comments about Cap-and-Invest implementation.

Concerns include:

- How do we prepare for unexpected events?
- How do we ensure the system is used as intended and not manipulated?

Preparing for the Unexpected

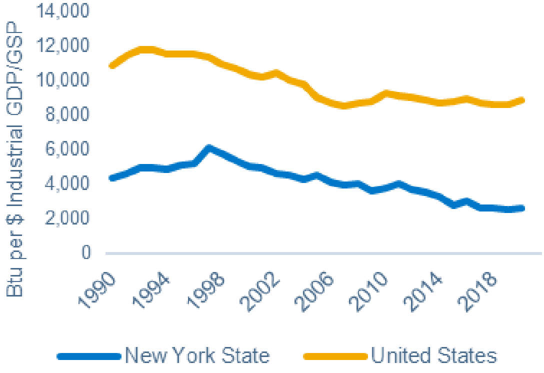
- ***Setting price and emissions collars****:* NYCI would create a price floor, emissions containment reserve, and a cost containment reserve.
  - These mechanisms come from best practices in RGGI, Quebec, California and elsewhere and are intended to make the system resilient to unexpected changes—sharp and unanticipated emission reductions (e.g., the transition away from coal) or energy shocks (e.g., as witnessed during COVID-19).
- ***Creating a price ceiling****:* If clean energy technology faces substantial barriers (supply chain issues, inadequate workforce, unavailable mitigation options, etc.), an unrestricted cap system may cause runaway prices.
  - To prevent this, some cap-and-invest systems include a price ceiling where unlimited compliance instruments are issued at a predetermined price. This limits emission reductions temporarily until the market catches up.



Preserving Competitiveness and Addressing Leakage

- New York industry is among the most efficient in the country.
- The Climate Act requires measures to prevent “leakage”—ie, shifting activity out of New York and to other locations with higher emissions. Other cap-and-invest programs have similar mechanisms for similar reasons.
- The NYCI pre-proposal recommends providing no-cost allowances to industry at risk of leakage in amounts that decline every year. All facilities, including emissions intense and trade exposed (EITE) facilities, must stay under the overall emissions cap.
- EITE mechanisms preserve the incentive to reduce emissions, including via early actions.

	Industrial Btu per $ GSP/GDP	Ranking
New York	204	1
Maryland	213	2
Massachusetts	235	3
Connecticut	258	4
Rhode Island	362	5
New Jersey	384	6
Florida	414	7
New Hampshire	448	8
Vermont	520	9
California	563	10
US	1,494	



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Safeguarding Program Integrity

NYCI would include provisions to ensure that the market system is used as intended including:

- Prohibition of collusion
- Auction purchase and holding limits
- Minimum hold times

NYSERDA would engage a professional independent market monitor to:

- Oversee conduct and outcome of each auction
- Review bidding behavior to identify potential manipulation
- Oversee secondary allowance markets
- Issue regular reports on auctions and markets

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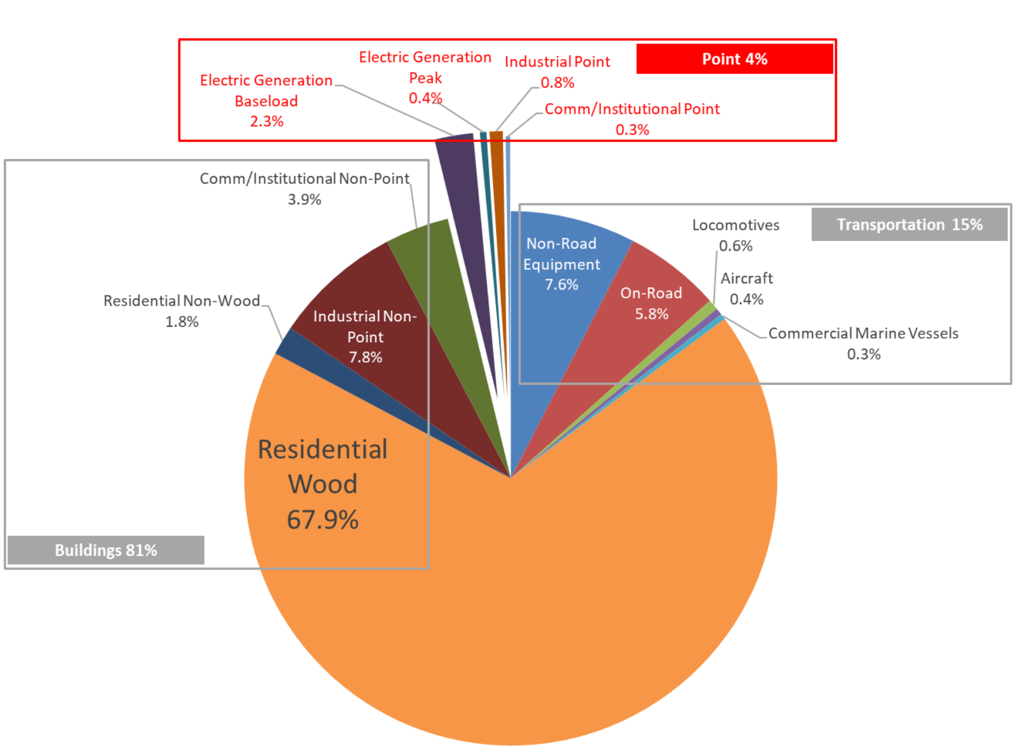
Current Emissions

What kind of sources create air pollution burdens in New York?

In 2020, residential woodsmoke represented the source of 68% of $PM_{2.5}$ from all fuel combustion in New York.

Individually controlled (permitted) stationary sources, including electric generation units, large industrial sources, and large commercial and institutional sources represented approximately 4% of the total.



Note*:* Subtotals may vary due to rounding
Data Source: EPA, National Emissions Inventory 2020

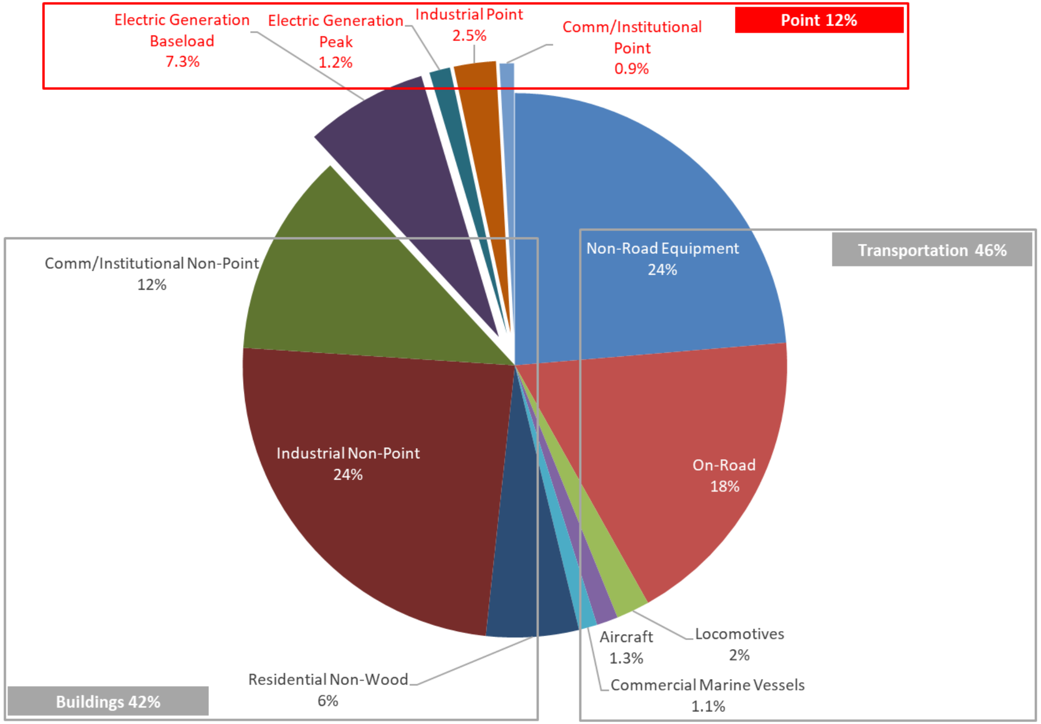
What kind of sources create air pollution burdens in New York?

Individually controlled (permitted) stationary sources yield a minority of the air pollution emissions in New York.

In 2020, electric generation units represented 8.5% of non-wood fuel combustion $PM_{2.5}$ emissions in NY, and other permitted sources represented approximately 3.5%.

Area and mobile sources dominate, which means that individual stationary source-focused policy is important but doesn't address the bulk of sources.

$PM_{2.5}$ Emissions From Fuel Combustion in NY State Excluding Residential Wood, 2020



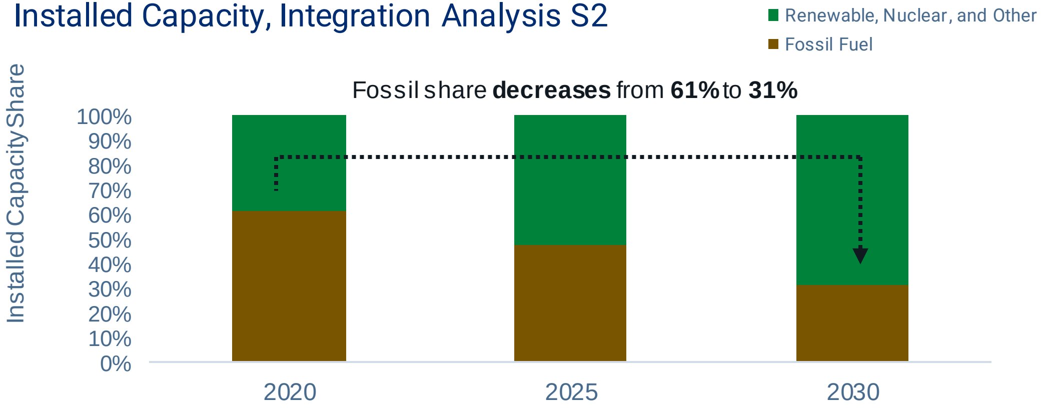
Note*:* Subtotals may vary due to rounding
Data Source: EPA, National Emissions Inventory 2020

Addressing electricity emissions

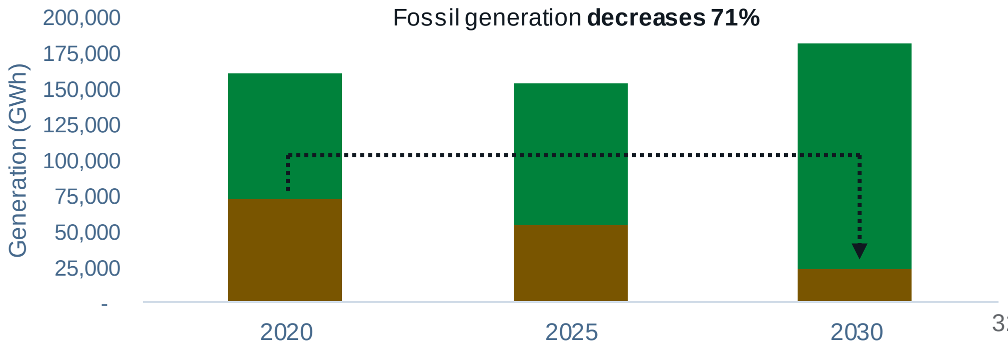
- Existing policies will go a long way to addressing sources of emissions in the electric sector.
- RGGI, the Clean Energy Standard, and other programs will substantially reduce the use of fossil fuels for our electricity needs.
- The Peaker Rule will ultimately retire the most polluting plants in New York. 35 peaking units representing 955 MW have already retired and an additional 265 MW are expected to retire in 2025.
- NYCI cannot be designed to compel the closure of individual generators, and pricing may not reduce the use of peaking facilities.

New York's electricity system is on track for a significant transformation.

Installed Capacity, Integration Analysis S2



New York Generation, Integration Analysis S2

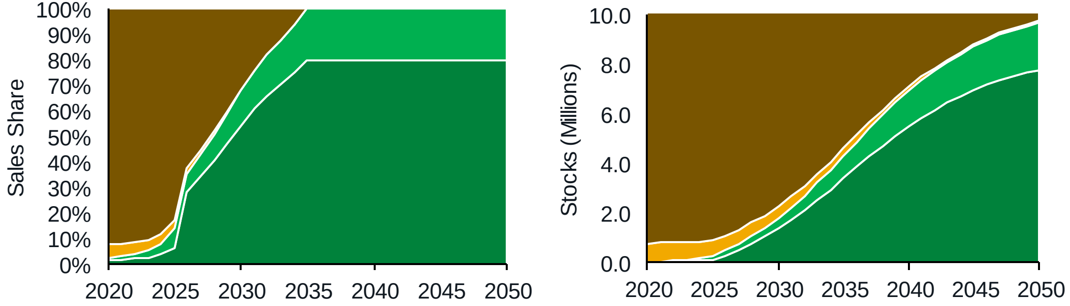


Addressing transportation emissions

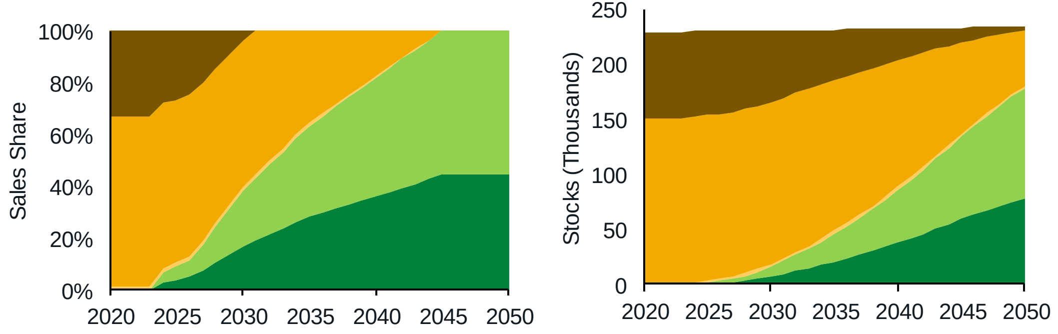
- Advanced Clean Cars II and Advanced Clean Trucks will drive substantial uptake of zero emission vehicles across all classes.
- Commitments to all-electric school buses will support change for those vehicles that directly burden children.
- Investments like the Clean Transportation Prizes target market transformation in the most impactful geographies.
- NYCI would provide essential revenue and price signal to ensure achievement of existing policies in addition to advancing greater ambition.

Ambitious existing policy will significantly clean New York's transportation sector.

Light Duty Vehicles



Medium- and Heavy-Duty Vehicles



Source: Reference Case v.2023

NYCI will help supplement and accelerate New York's existing policies.

NYCI will accelerate New York's emission reduction policies and programs that advance building decarbonization

- NYCI will put electricity on a more level playing field with fossil fuels, helping support building efficiency and electrification.
- In particular, NYCI will support adoption of heat pumps, especially replacing heating oil.
- NYCI will create a new investment mechanism for building transition.

NYCI will also help deploy zero emission vehicles faster than with current policies alone.

- This is especially the case for medium and heavy-duty vehicles and non-road engines, where existing regulations are less stringent than for light duty. Diesel engines are also especially impactful in many Disadvantaged Communities.
- NYCI will even the playing field for clean transportation, and the revenue will create financial support also for hard-to-electrify vehicles, supporting not only focused investment in electrifying these impactful sources, but also growth of hydrogen fuel cell vehicles used in long-haul heavy-duty and non-road applications.

Delivering Equitable Benefits

Equity Consideration for Disadvantaged Communities: Emission Reductions

- In addition to investments to reduce emissions, DEC is soliciting feedback about any additional regulatory mechanisms in the NYCI regulation that should be considered to ensure emission reductions in disadvantaged communities.

- The Climate Act requires that DEC's NYCI regulation not result in net increases in co-pollutant emissions or disproportionately burden disadvantaged communities

- The Climate Act also requires DEC – and all NYS agencies and authorities – to prioritize reductions of both greenhouse gas and co-pollutant emissions in disadvantaged communities

What We Heard from New Yorkers

- Prohibit or limit emissions trading solutions
- Set caps with timetables
- Minimize cost, emissions, and other impacts on disadvantaged communities
- Ensure adequate investments
- Ensure emission reductions are verifiable and enforceable
- Track GHG and co-pollutant emissions from all sources
- Provide transparent demonstration of emissions and investments
- Ensure disadvantaged community representation in oversight and program review
- Consider burdens and job impacts on businesses located in or near disadvantaged communities
- Ensure affordability and protect economic opportunities

Considerations to ensure the NYCI Program does not disproportionately impact Disadvantaged Communities.

- **No offsets**
  - The NYCI program would not include any provisions for offsets. Some cap-and-invest programs provide for the creation of offsets based on investments in projects that reduce or sequester GHG emissions. Allowing GHG Emissions Sources to cover a portion of their compliance obligation with offsets could enable such sources to increase their direct on-site emissions.
- **A number of additional policy options under considerations**
  - *Facility-specific caps:* The NYCI program would consider facility-specific caps focused on criteria air pollutant emissions from facilities that burden disadvantaged communities.
  - *Consideration of trading prohibition between DAC facilities and others*
  - *Requiring Obligated Entities located in or near DACs to surrender Allowances at some multiple of greater GHG emissions*

Investment of proceeds is essential for success.

- At least 67% of proceeds will be placed in a Climate Investment Account to help transition to a less carbon-intensive economy. NYSERDA and other State investment agencies will dedicate at least 35%, with a goal of 40%, to mitigating burdens in disadvantaged communities.
  - Investment is critical to achieve equity goals because it can reach more pollution sources and types than facility-oriented policies. For example, investments can target facilities that do not have a direct obligation like intermodal and trucking facilities, ports, and bus depots.
- Consistent with the Climate Affordability Study, the anticipated progressive structure of the Consumer Climate Action Account will ensure low-income New Yorkers benefit most.
  - The Consumer Climate Action Account will advance affordability - one of Governor Hochul's five core objectives for NYCI.
  - As a result of this Account, many New Yorkers will be financially better off after program launch.
    - Disbursement of Consumer Climate Action Account funds can be structured to account for variability in energy burden, energy use, income level, geography, and other factors

Equity and Climate Justice Roundtable

Following up on the DEC Equity & Climate Justice Roundtable on August 23, 2023

- Further analysis results will accompany a proposed rule publication. In addition to final analysis, DEC and NYSERDA are offering preliminary analysis to inform stakeholder input on preproposal. Those results will be delivered during the January 26, 2024 webinar
- Stakeholder feedback and comments were considered in the development of the regulatory outline which will be presented in more detail during the January 25, 2024 webinar.

Intermission

A Question-and-Answer session will follow a short intermission

Questions & Answers

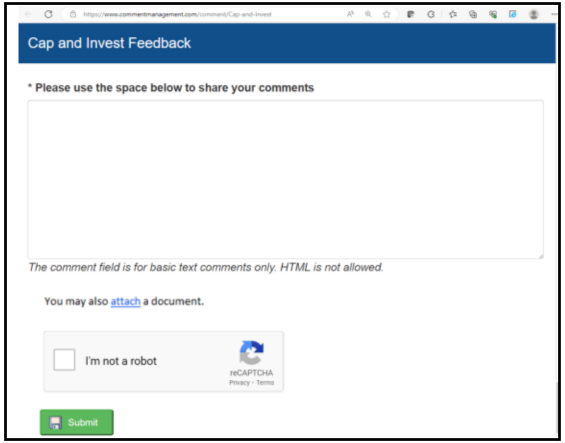
Reminder: Phase 2 Webinars

Jan. 25, 1 to 4 p.m.: Pre-Proposal Outline Overview

Jan. 26, 11 a.m. to 2 p.m.: Preliminary Analysis Overview

Sign up for future webinars at: https://capandinvest.ny.gov/Meetings-and-Events

Submitting Comments



https://www.commentmanagement.com/comment/Cap-and-Invest

Cap and Invest Feedback

* Please use the space below to share your comments

The comment field is for basic text comments only. HTML is not allowed.

You may also attach a document.

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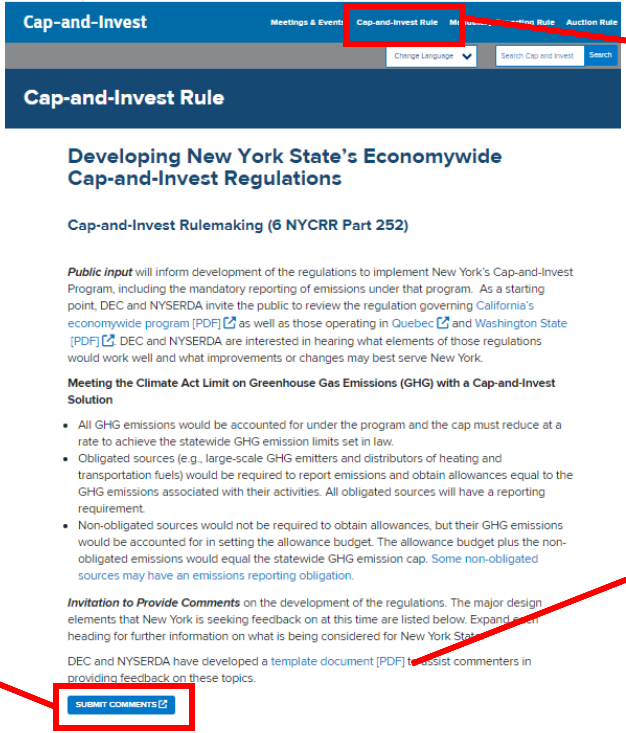
SUBMIT COMMENTS



Cap-and-Invest

Meetings & Events | Cap-and-Invest Rule | Mandatory Reporting Rule | Auction Rule

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Cap-and-Invest Rule

Developing New York State's Economywide Cap-and-Invest Regulations

Cap-and-Invest Rulemaking (6 NYCRR Part 252)

Public input will inform development of the regulations to implement New York's Cap-and-Invest Program, including the mandatory reporting of emissions under that program. As a starting point, DEC and NYSERDA invite the public to review the regulation governing California's economywide program [PDF] as well as those operating in Quebec and Washington State [PDF]. DEC and NYSERDA are interested in hearing what elements of those regulations would work well and what improvements or changes may best serve New York.

Meeting the Climate Act Limit on Greenhouse Gas Emissions (GHG) with a Cap-and-Invest Solution

- All GHG emissions would be accounted for under the program and the cap must reduce at a rate to achieve the statewide GHG emission limits set in law.
- Obligated sources (e.g., large-scale GHG emitters and distributors of heating and transportation fuels) would be required to report emissions and obtain allowances equal to the GHG emissions associated with their activities. All obligated sources will have a reporting requirement.
- Non-obligated sources would not be required to obtain allowances, but their GHG emissions would be accounted for in setting the allowance budget. The allowance budget plus the non-obligated emissions would equal the statewide GHG emission cap. Some non-obligated sources may have an emissions reporting obligation.

Invitation to Provide Comments on the development of the regulations. The major design elements that New York is seeking feedback on at this time are listed below. Expand each heading for further information on what is being considered for New York State.

DEC and NYSERDA have developed a template document [PDF] to assist commenters in providing feedback on these topics.

SUBMIT COMMENTS

Cap-and-Invest Rule

Developing New York State's Economywide Cap-and-Invest Regulations

NEW YORK STATE

Public input will inform development of the regulations to implement New York's Cap-and-Invest program.

Invitation to Provide Comments on the development of the regulations. The major design elements that New York is seeking feedback on at this time are listed below. Please enter your feedback in the form fields below each heading.

Submit Comments

DEC and NYSERDA will review comments and further develop pre-proposal materials to define New York's program. Notices will be sent to the distribution list when the second round of pre-proposal materials are posted. To inform the development of the pre-proposal, DEC and NYSERDA request first round feedback no later than July 1, 2023.

Applicability and Thresholds – Defines which sources and at what emissions thresholds sources are covered by the regulations, who must report emissions, and who must obtain and surrender allowances equal to their GHG emissions. Establishes obligated and non-obligated sources.

Allowance Allocation – Defines how allowances are made available: auctions, set asides and free allocations.

Thank You!

Join the Mailing list to receive updates on program development

Meeting recordings and materials can be found at:

www.capandinvest.ny.gov/meetings-and-events

Provide feedback:

Comments can be submitted online, preferably **by March 1, 2024**, at:

www.capandinvest.ny.gov

or by mail:

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