

Advisory Panel on:

***Energy-Intensive and
Trade-Exposed Industries***

September 24, 2020
Meeting 1

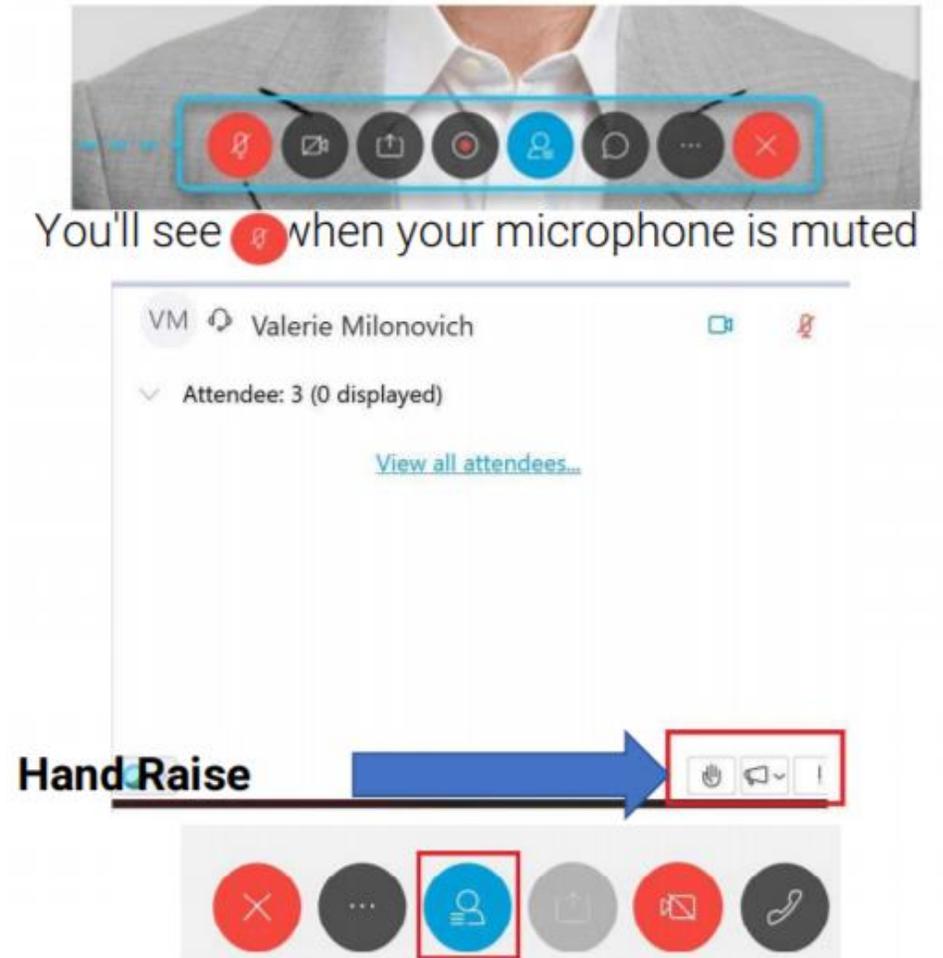


**Climate Action
Council**

Logistics and Meeting Procedures

Before beginning, a few notes to ensure a smooth discussion:

- > Panel Members should be on mute if not speaking
 - If using phone for audio, please tap the mute button
 - If using computer for audio, please click the mute button on the computer screen (1st visual)
- > Video is encouraged for Panel Members, in particular when speaking
- > In the event of a question or comment, please use the hand raise function (2nd visual). You can get to the hand raise button by clicking the participant panel button (3rd visual). The Chair will call on members individually, at which time please unmute.
- > If technical problems arise, please contact William.Mead@its.ny.gov or (518) 292-5192.



Agenda

- Welcome and Meeting Objective (5 minutes)
- Introductions and Panel Member Remarks (25 minutes)
- Pathways to Decarbonization by E3 (30 minutes)
- State of the Sector (30 minutes)
- Scope, Work Plan and Next Steps (30 Minutes)

Meeting Objectives

- Introduction to Topic and Work Ahead
- Collect Advisory Panel Input on Process, Scope

Energy-Intensive and Trade-Exposed Industries Advisory Panel

Eric Gertler, Chair
President & CEO:
Empire State
Development

Keith Hayes
Senior VP of Clean
Energy Solutions:
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Heather Briccetti
President & CEO: The
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Tristan Brown
Associate Professor of
Energy Resource
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Jason Curtis
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Carlos García
Energy Policy Planner:
New York City
Environmental Justice
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**Leah George
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VP of Business
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Doug Grose
President: NY
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Michael LeMonds
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Environment, Land
and Government
Affairs: Lafarge

Melanie Littlejohn
Vice President and
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Director-Upstate New
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Elisa Miller-Out
Managing Partner:
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Stephen Tucker
President & CEO:
Northland
Workforce Training Ctr

David Wasiura
Assistant to the
Director: United
Steelworkers District 4

Lourdes Zapata
President & CEO:
South Bronx Overall
Econ. Devt. Corp.

Energy-Intensive and Trade-Exposed Industries Staff Working Group

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Maureen Leddy
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Kara Allen
Senior Adviser,
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Pathways to Decarbonization

(E3 Presentation)

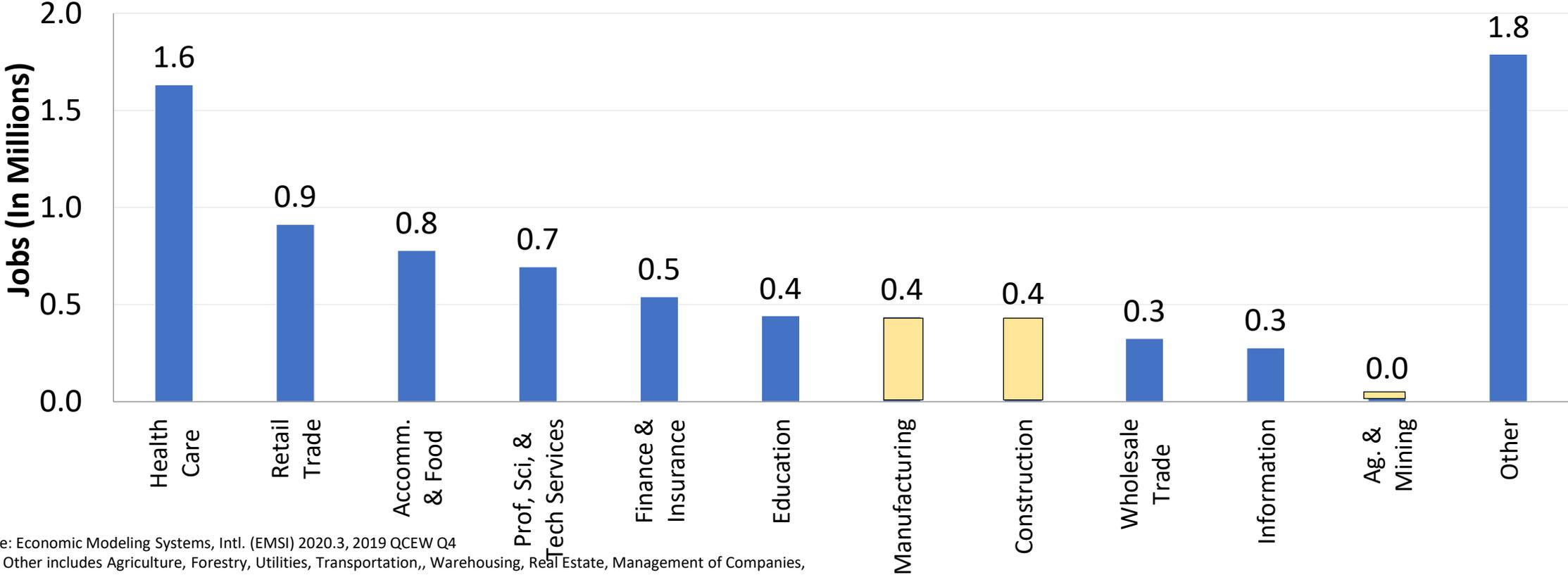
State of the Sector

- Industrial Sector Overview
- Energy-Intensive and Trade-Exposed (EITE) Industries
- NYS Program Inventory

Private Sector Employment in New York State

Private Sector Jobs in New York State by Industry (2019)

Industrial GHG emission source



Source: Economic Modeling Systems, Intl. (EMSI) 2020.3, 2019 QCEW Q4
 Note: Other includes Agriculture, Forestry, Utilities, Transportation, Warehousing, Real Estate, Management of Companies, Admin and Support, Arts, Entertainment and Other Services.

Background on “EITE” Industries

- Energy-Intensive and Trade-Exposed (EITE) Industries (*a.k.a., Emission-Intensive and Trade-Exposed Industries*):
 - High use of energy and/or generation of emissions
 - High trade exposure (limited ability to pass along local compliance costs to consumers)
- Emission policies disproportionately impact EITE industries; if not carefully designed, they may result in loss of economic activity without global reduction in emissions.

Avoiding “Leakage”

- Definition of “Leakage” under the CLCPA:
 - “A reduction in emissions of greenhouse gases in the state that is offset by an increase in emissions of greenhouse gases outside of the state.”
- Scenario A - Risk of Leakage:
 - An EITE manufacturer decides to build a factory in State #2 because New York State has stricter emissions controls, which carry higher compliance costs, and/or higher energy prices.
 - New York State’s emissions are lower than what they would have been, but State #2’s emissions increase
 - New York State loses jobs, investment and taxes, and there is no progress in reducing global emissions.
- Scenario B - Successfully Avoiding Leakage:
 - New York State assists an EITE manufacturer in complying with EITE-sensitive emission and energy policies.
 - The EITE manufacturer builds a factory in New York State that produces less emissions than if in State #2.
 - New York gains jobs, investment and taxes, and there will be lower emissions globally than in Scenario A.

EITE Sectors – Example Definition

American Clean Energy and Security Act of 2009:

- **Energy intensity:** the cost of electricity and fuel costs divided by domestic production is greater than 5%; OR
- **Emissions intensity:** \$20 allowance price multiplied by CO2e tons of GHG emissions (sum of direct combustion, process emissions and indirect emissions from electricity) divided by domestic production is greater than 5%; AND
- **Trade exposure:** Imports + exports divided by total value of domestic production + imports > 15%.

Select EITE Sectors Under Definition

- Aluminum Production
- Cement Manufacturing
- Chemical Manufacturing
- Glass Manufacturing
- Iron, Copper and Nickel Ore Mining
- Iron and Steel Mills
- Paper, Pulp & Newsprint Mills
- Semiconductor Manufacturing

Source: Energy Intensity, Trade Intensity, and Emissions of U.S. Manufacturing Sectors at the Six-Digit NAICS Code Level, Federal Interagency Report on International Competitiveness and Emission Leakage in Energy-Intensive Trade-Exposed Industries, Figure 2, p. 11 (December 2, 2009).

Defining “EITE” in New York State

- Consideration of “emissions intensity” and “energy intensity” as power generation sector is decarbonized.
- Consideration of interstate trade exposure as well as international trade exposure.
- Consideration of whether and how to formally define “EITE” in New York State.

State of New York Programs Applicable to Industry – Overview

The State offers a number of existing programs in *financial assistance, technical assistance, low-cost power and workforce development* to:

- **lower the emissions produced** by industrial activities in New York State;
- **support the transition** of energy-intensive and trade-exposed industries throughout the decarbonization of the state's economy; and
- **mitigate leakage** from energy-intensive and trade-exposed industries by supporting their attraction, retention and expansion.

Most relevant programs are offered by: the New York State Energy Research and Development Authority (NYSERDA), the New York Power Authority (NYPA) and Empire State Development (ESD).

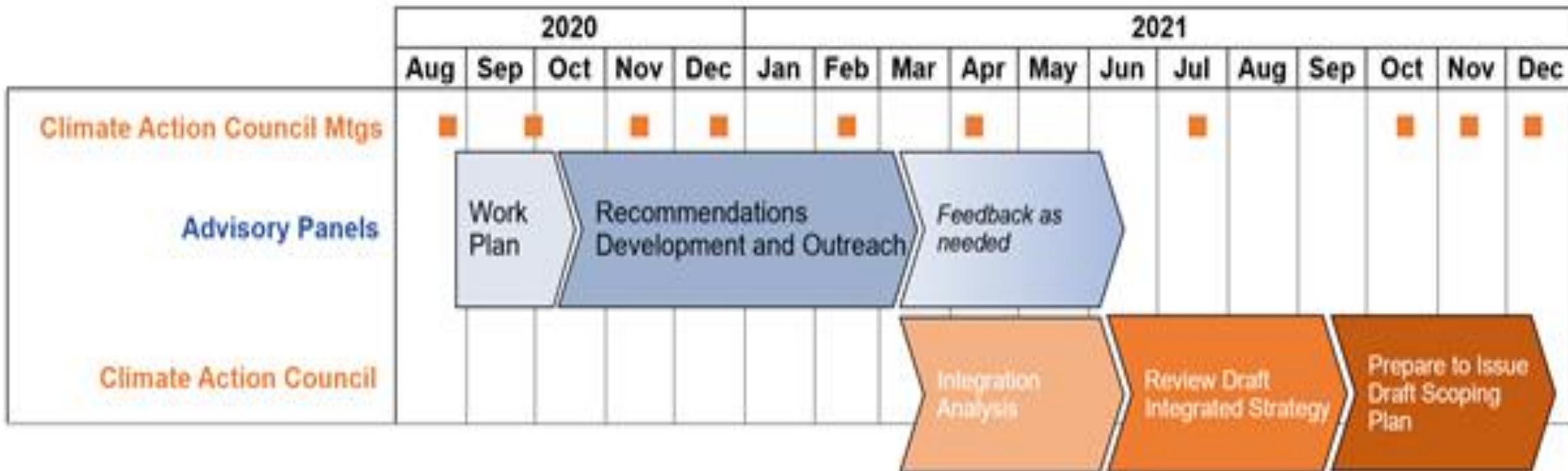
State of New York Programs Applicable to Industry – Examples

- **NYPA:** *Financial Assistance* and *Low-Cost Power* (including hydro) programs in exchange for investment or job commitments, and *Technical Assistance* to industry to deploy solar, energy storage and energy efficiency projects.
- **NYSERDA:** *Technical Assistance* and *Financial Assistance* programs to promote energy efficiency, greenhouse gas emissions reduction, and the deployment of renewable energy in industry.
- **ESD:** *Financial Assistance* (loans, grants, tax credits, venture investments) to incentivize industry (including EITE sectors) in exchange for investment or job commitments and *Technical Assistance* (e.g. NYSTAR) to conceive and scale disruptive technologies.

Panel Discussion

- Timeline
- Scope of Advisory Panel
- Next Steps

Timeline Overview



Advisory Panel Process

EITE Advisory Panel should:

- > Consult with the Climate Justice and Just Transition working groups to inform its recommendations for the Climate Action Council.
- > Seek public input at the appropriate times to inform the development of recommendations to the Council for consideration.
 - Seek input from a broad base of stakeholders
 - Hold at least one forum that is open to the public
- > Provide regular updates to the Council on the development of recommendations.
 - Present interim findings at Council meetings
 - Provide final recommendations six months prior to the Council's release of the draft Scoping Plan
- > Information regarding advisory panel public meetings and comment opportunities, and a contact for the advisory panel shall be available on the climate webpage.

For Discussion: Panel Scope

*Preliminary Guidance
from Climate Action Council*

Develop sector-specific strategies to achieve 6% emission reduction from 2016 level by 2030 (81-82% by 2050)

- Scope may include: energy use, process emissions, and non-combustion sources of GHGs
- Technologies/strategies to consider:
 - energy efficiency
 - low-carbon thermal solutions, cleaner fuels, electrification
 - carbon capture utilization and storage, innovation
- Addressing competitiveness and leakage may include:
 - rate design; low-cost power programs
 - market preference for goods produced with minimal greenhouse gas emissions
 - opportunities to support clean technology supply chains
- Cross-sectoral collaboration: Just Transition Working Group

Next Steps

- Scheduling of Upcoming EITE Panel meetings
- Providing input on a forthcoming draft scope and work plan (to be discussed at meeting #2)
- Presentation of proposed scope and work plan to Climate Action Council

Appendix – Related Programs by Agency

Empire State Development (ESD) Programs

Program	Purpose
Excelsior Jobs Program, including Green Economy Tax Credits	Provides performance-based refundable tax credits to private businesses in exchange for achieving annual milestones in employment, investment and R&D spending, with enhanced benefits for green economy projects. \$5 million is reserved for the workforce training Employee Tax Incentive Program credit.
Centers and Programs – Division of Science, Technology and Innovation (NYSTAR)	<p>NYSTAR annually provides \$55 million to a total of approximately 70 NYSTAR centers, including a number that impact or support the green economy by providing a forum for experts to work with big and small industry partners to conceive, validate and scale disruptive technologies.</p> <p><i>Sample Programs: Centers of Excellence (COE), Centers for Advanced Technology (CAT) and Manufacturing Extension Partnership (MEP) programs.</i></p>
Other Economic Assistance – Loans, Grants, Tax Credits and Technical Assistance	ESD administers dozens of general programs devoted to providing loans, grants, tax credits, technical assistance and venture investment; some of these programs may be available to support EITE industries or serve as models for new programs.

New York Power Authority (NYPA) Programs

Program	Purpose
High Load Factor Power (HLF)	Allocates power from pumped storage facilities to businesses that utilize power at a high rate (~75% load factor or higher) and have an electric demand of 5 MW or higher.
Industrial Economic Development Power Program	Allocations of power including hydro and market are granted to the electric systems with new, expanding, or relocating businesses within their service territory, in exchange for a commitment of new jobs at the facility.
Northern NY Power Proceeds	Allocates funding for economic development In St. Lawrence County. 15% of the program is dedicated to supporting energy related projects, programs and services.
Preservation Power	Allocates hydropower to eligible businesses expanding or businesses looking to locate operations in St. Lawrence, Franklin or Jefferson counties.
ReCharge New York (RNY)	Provides low-cost power to businesses and not-for-profit organizations statewide in return for commitments to retain/create jobs and invest capital in their facilities.
WNY Hydropower	Allocated hydropower to expanding businesses or businesses seeking to locate within 30 miles of the Niagara Power Plant.
Western NY Power Proceeds	Low-cost hydropower is allocated to businesses and others to reduce electricity costs and spur economic development. 15% of the program is dedicated to supporting energy related projects, programs and services.
Distributed Energy Resource Program	Advance NYS Clean Energy goals by partnering with our customers to implement distributed solar and storage with NYPA operating as the owner's representative. This work is done at no cost to the customer and is paid by the solar or storage developer if their overall project economics meet the customer's financial requirements.
eMobility Program	Installation of electric vehicle charging equipment for multiple purposes: fast charging for highway corridors and urban centers, commuter lot EV charging, transit bus depot charging and charging for workplaces within the ReCharge NY program. Advisory services for fleet electrification.
Energy Efficiency Program	Partnering with NYPA customers to implement comprehensive Energy Efficiency projects. This program provides our customers with the expertise to identify and evaluate facility improvements that not only provide solutions to aging equipment, but also produce significant energy and environmental benefits.
Smart Street Lighting NY	Advance NYS Clean Energy goals by offering a full turnkey service to assist customers with the acquisition and conversion of street lights to energy efficient LEDs.
Street Lighting Maintenance Service	The Maintenance Service begins once municipalities gain ownership and convert their street lights to LED through Smart Street Lighting NY.

New York State Energy Research and Development Authority (NYSERDA) Programs

Program	Purpose
Buildings of Excellence Competition	Recognizes and rewards the design, construction, and operation of very low or zero carbon emitting multifamily buildings.
Clean Energy Workforce Development Programs	Provides clean energy workforce development and training funds.
Clean Heating and Cooling Programs	Heat pumps are a more efficient heating and cooling option that eliminate fossil fuels, can provide up to 100 percent of your heating and cooling needs, and help you save on your energy bills.
Commercial and Industrial (C&I) Carbon Challenge	Helps large commercial and industrial companies and organizations implement their best energy-saving/carbon-reduction projects.
Commercial New Construction Program	Provides technical assistance and support to design teams and building owners involved in building energy-efficient structures.
Energy Storage Program	Offers funding and technical support to building owners, municipalities, energy storage developers, contractors, and integrators for installing energy storage technologies.
Energy to Lead	Challenged student-supported coalitions across the State to develop and implement plans to advance clean energy on their campuses and in their local communities in new ways.
Flexible Technical Assistance (FlexTech) Program	Shares the cost to produce an objective, site-specific, and targeted study on how best to implement clean energy and/or energy efficiency technologies.
Ground Source Heat Pump Program	Offers support for the installation of ground source heat pump systems at residential, commercial, institutional, and industrial buildings.
NY-SUN	Provides incentives and financing to make solar-generated electricity accessible and affordable for all New York homeowners, renters, and businesses. include training for installers and public officials, standardized permitting processes, and consumer education.
Real Time Energy Management Program (RTEM)	RTEM technologies analyze data and recommend actionable insights, resulting in lower operating and utility costs, and a smarter building with greater comfort, appeal and marketability.
Strategic Energy Management Program	Offers training to industrial facilities that are interested in optimizing energy use through a continuous improvement approach