New York State 2024 Energy Emergency Plan:

An Integrated Resource Plan Specifying Actions in the Event of an Energy or Fuel Supply Emergency

Final Report | January 2025

NEW YORK STATE
NYSERDA
New York State Energy Research and Development Authority
50 YEARS 1975-2025

NYSERDA's Promise to New Yorkers:

NYSERDA provides resources, expertise, and objective information so New Yorkers can make confident, informed energy decisions.

Our Vision:

New York is a global climate leader building a healthier future with thriving communities; homes and businesses powered by clean energy; and economic opportunities accessible to all New Yorkers.

Our Mission:

Advance clean energy innovation and investments to combat climate change, improving the health, resiliency, and prosperity of New Yorkers and delivering benefits equitably to all.

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New York State Energy Research and Development Authority

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Acronyms and Abbreviations

ºC	Degrees Celsius
ºF	Degrees Fahrenheit
AG	Office of the Attorney General
AGM	Department of Agriculture and Markets
AGT	Algonquin Gas Transmission Co.
AMBER Alert	America's Missing: Broadcast Emergency Response Alert
ASTM	American Society of Testing Materials
CAA	Clean Air Act
CEMP	Comprehensive Emergency Management Plan
CEO	Chief Executive Officer
CESER	U.S. Department of Energy Office of Cybersecurity, Energy Security, and Emergency Response
CHG&E	Central Hudson Gas & Electric Corporation
CHP	Combined Heat and Power
CIMS	Citywide Incident Management System
Columbia	Columbia Gas Transmission Corp.
Con Edison	Consolidated Edison Company of New York, Inc.
Corning	Corning Natural Gas Company
CRRA	Community Risk and Resiliency Act
DC	Director of Communications
DEC	Department of Environmental Conservation
DEP	New York City Department of Environmental Protection
DHS	Department of Homeland Security
DHSES	Division of Homeland Security and Emergency Services
DLA	Defense Logistics Agency
DMNA	Division of Military and Naval Affairs
DOD	Department of Defense
DOE	U.S. Department of Energy
DOH	Department of Health
DOS	Department of State
DOT	Department of Transportation
DPC	Disaster Preparedness Commission
DPC	State Disaster Preparedness Commission

DPS	Department of Public Service
DTI	Dominion Transmission, Inc.
EAS	Emergency Alert System
ECL	Emergency Classification Levels
EIA	Energy Information Administration
Empire	Empire State Pipeline Co.
EO	Executive Order
EOC	Emergency Operations Commission
EPA	U.S. Environmental Protection Agency
EPCA	Energy Policy and Conservation Act of 1975
ESD	Empire State Development
ESF	Emergency Support Function
FEMA	Federal Emergency Management Administration
FERC	Federal Energy Regulatory Commission
FMA	Federal Maritime Administration
FMCSA	Federal Motor Carrier Safety Administration
FRA	Federal Rail Administration
FRP	Federal Response Plan
HCR	Homes and Community Renewal
HEAP	Home Energy Assistance Program
IEA	International Energy Agency
IFTA	International Fuel Tax Authority
IGTS	Iroquois Gas Transmission System
IPAWS	Integrated Public Alert and Warning System
IRP	International Registration Plan
IRS	Internal Revenue Service
ISO	Independent System Operator
ITS	New York State Office of Information Technology Services
JIC	Joint Information Center
LDCs	Local Distribution Companies
LIHEAP	Low-Income Home Energy Assistance Program
LIPA	Long Island Power Authority
LIRR	Long Island Rail Road
LNG	Liquefied Natural Gas
LPG	Liquefied Petroleum Gas

MAC	Multiagency Coordination
MTA	Metropolitan Transit Authority
NASEO	National Association of State Energy Officials
NERC	North American Electric Reliability Council
NFGD	National Fuel Gas Distribution Company
NFGS	Millennium Pipeline, National Fuel Gas Supply Corp.
NGA	National Gas Association
NIMS	National Incident Management System
NIST	National Institute of Standards and Technology
NOAA	National Oceanic and Atmospheric Administration
NPCC	Northeast Power Coordinating Council
NRF	National Response Framework
NYC-OEM	New York City Office of Emergency Management
NYISO	New York Independent System Operator
NYPA	New York Power Authority
NYR	New York Responds
NYRC	New York Reliability Council
NYS	New York State
NYSE&G	New York State Electric and Gas Corporation
NYSERDA	New York State Energy Research and Development Authority
NYSIC	New York State Intelligence Center
NYSTA	New York State Thruway Authority
O&R	Orange & Rockland Utilities
OCT	Office of Counter Terrorism
OEM	Office of Emergency Management
OGS	Office of General Services
OPEC	Organization of Petroleum Exporting Countries
OPS	Office of Pipeline Safety
OTDA	Office of Temporary and Disability Assistance
PADD	Petroleum Administration for Defense District
PHMSA	Pipeline and Hazardous Materials Safety Administration
PIO	Public Information Officer
ppm	Parts per Million
PSC	Public Service Commission
psi	Pounds per Square Inch

RFG	Reformulated Gasoline
RG&E	Rochester Gas & Electric
RVP	Reid Vapor Pressure
SEOC	State Emergency Operations Center
SFR	Strategic Fuels Reserve
SGR	Strategic Gasoline Reserve
SIPs	State Implementation Plans
SPR	Strategic Petroleum Reserve
St. Lawrence	St. Lawrence Gas Company
State Ed	New York State Department of Education
State Police	Division of State Police
TETCO	Texas Eastern Pipeline Co.
TransCanada	TransCanada Pipelines, Ltd.
TRANSCO	Transcontinental Gas Pipeline Corp
UIU	Utility Intervention Unit
ULSD	Ultra-low Sulfur Distillate
WAP	Weatherization Assistance Program
WEA	Wireless Emergency Alerts

1 Introduction

1.1 Energy Emergency Plan Objectives and Guidelines

The principal objectives of the Energy Emergency Plan are to:

- Protect public health, safety, and welfare.
- Enhance the resiliency of services while minimizing economic disruption.
- Direct scarce energy supplies in an equitable manner among competing essential purposes.

The Energy Emergency Plan has been developed in accordance with certain planning guidelines that aim to:

- Provide the flexibility required to meet a broad range of supply disruptions that may have materially different consequences depending, for example, on the time of year.
- Incorporate and, if necessary, supplement private sector emergency planning efforts, such as the emergency operating plans of local electric distribution companies in the State. In general, less invasive governmental action is preferred.
- Rely to the maximum extent practicable on voluntary rather than mandatory strategies.
- Include detailed strategies and options, as far as practicable, to respond to a broad range of informational needs.
- Develop New York State's emergency response options in light of federal strategies and energy industry practices.

The benefits of the Energy Emergency Plan aim to:

- Provide advance notice of available emergency response strategies and options to energy suppliers, energy users, and all levels of government to allow necessary preparations before an actual emergency occurs.
- Protect public health and safety in times of critical need.
- Minimize delays in establishing response mechanisms during energy emergencies.
- Promote consumer and supplier cooperation during periods of emergency.
- Coordinate State, federal, and private sector actions for maximum effectiveness during an energy emergency.

For more information on this plan, please contact Frank Ciampa at Frank.Ciampa@nyserda.ny.gov

1.2 New York State Legislative and Regulatory Mandate

New York State Executive Law, Article 2-B, Section 21, establishes the State Disaster Preparedness Commission and requires the commission to develop disaster preparedness plans. Such disaster preparedness plans address disaster prevention, response, and recovery, as well as to collectively

comprise the elements of the State's Comprehensive Emergency Management Plan (CEMP).[1] The CEMP provides general strategic guidance and an organizational structure of NYS agencies during emergency response and short-term recovery operations. This Energy Emergency Plan serves as an annex to the CEMP and uses all the existing powers and authorities realized in the CEMP.

When enacting the NY Energy Law in 1976, the State Legislature recognized the need for a comprehensive plan to set forth response strategies during energy emergencies. At that time, the Legislature authorized the preparation of an integrated resource plan specifying actions to be taken in the event of the declaration by the governor of an energy or fuel supply emergency. Responsibility for energy emergency planning and response was transferred from the State Energy Office to the New York State Energy Research and Development Authority (NYSERDA) in 1995.[2]

NY Energy Law § 5-117 authorizes the governor to declare an energy or fuel supply emergency, which may remain in effect for up to 6 months. Extension beyond 6 months must be approved by the Legislature.[3] Upon declaration by the governor of an energy emergency threatening the health and welfare of the State's residents or economy, NYSERDA's president is granted broad authority to do the following:

- Allocate available supplies of energy or energy resources among areas, users, persons, or categories of persons or users. In allocating available supplies, the president gives priority to energy and energy resource use essential to public health and safety and thereafter attempts to allocate the remaining supply equitably and in a manner designed to avoid undue hardship.[4]
- Impose restrictions on any wasteful, inefficient, or nonessential use of energy or energy resources and on the promotion of such uses.[5]
- Waive State and local environmental protection requirements to the extent necessary for emergency use of energy resources not meeting such requirements for a not more than 30 days, provided however, that an additional 30 days may be granted for good cause. Only one waiver and one extension may be granted for any facility within any 6-month period.[6]

A second source of emergency powers exists to address specific liquid fossil fuel supply problems affecting the State. Liquid fuels include petroleum fuels and propane. NYSERDA's president is authorized to activate a fuel set-aside system for liquid fossil fuels under the Fuel Set-Aside Act and the accompanying regulations.[7] This program exists in "standby" status, to be implemented by NYSERDA's president if he or she "finds that implementation of the ... program for one or more liquid fuels is necessary to prevent or alleviate energy hardships or shortages."[8] The set-aside program may go into effect, in whole or in part, only upon termination, suspension, or failure by the federal government to implement all or part of the federal petroleum allocation program. When NYSERDA's

president finds implementing the program is necessary, they may implement only the portion of the State set-aside necessary to "prevent or alleviate energy hardships or shortages."[9] Additionally, in exercising the power granted pursuant to NY Energy Law § 5-117 (1) and (2), § 5-117 (3) authorizes NYSERDA to supersede any emergency power previously vested in any other state agency.

NY Energy Law § 10-105(2)(b) authorizes a monthly fuel set-aside by each prime supplier of liquid fossil fuels.[10] In the event of a declaration by NYSERDA's president that activates the set-aside program, each prime supplier doing business in the State is directed to make available to the State up to 3% of its total available monthly supply for allocation to qualifying users under the set-aside program. Allocation of a set-aside product is granted on a month-to-month basis to priority users' wholesale supplier for delivery to priority end-users. Priority uses are identified during an emergency to alleviate emergency or hardship conditions in the most effective and equitable manner possible. For example, priority uses generally include those supporting public health and safety, such as medical care and law enforcement. NYSERDA may also determine that a particular area of the State is experiencing a significant supply imbalance compared to other regions of the State. NYSERDA is authorized to issue a general distribution order directing some or all prime suppliers to release all or a portion of their set-aside supplies into the designated market.

The set-aside program has three major operational aspects: (1) allocation assessment, (2) data management, and (3) communications. When the set-aside program is activated, NYSERDA must review eligible applicants identified by county officials, review and establish monthly set-aside amounts for each county, contact prime suppliers, process applications for exempt categories or excessive requests (more than 25,000 gallons) of product, and perform program review and reporting requirements. In the event of a long-term fuel supply emergency, other State agencies' resources could be used to respond to the situation. In the event of a long-term fuel supply emergency, other State agencies' resources could be used to respond to the situation.

NYS Executive Law, Article 26, § 713, requires the commissioner of the Division of Homeland Security and Emergency Services (DHSES) to review and analyze measures taken by the Public Service Commission (PSC), other agencies, and divisions of the State to protect critical infrastructure related to energy generation and transmission. To the extent practicable, the commissioner may review the measures taken by any federal entity regarding generation and transmission located in the State.[11]

NYS Agriculture and Markets Law, Article 16, § 192-h, enacted in 2013, requires most downstate gas stations located within one-half mile of a controlled access highway exit or evacuation route to maintain a generator deployment plan and install a transfer switch so a backup generator may be connected during emergencies. Additionally, some large gas station chains must install transfer switches at 30% or more of their gas stations located beyond one-half mile of a controlled access highway or evacuation route.[12] The NYS Department of Agriculture and Markets Division of Weights and Measures is responsible for ensuring gas stations comply with the law.

In addition to New York State's legislative mandate, numerous policy initiatives aim to better equip the State to respond to energy emergencies. The New York State Strategic Fuel Reserve, established in 2013 as part of the Fuel NY Initiative, includes an upstate and downstate fuel reserve and is designed to mitigate disruptions of fuel dispersal during declared emergencies.[13] A declaration by New York State of an energy supply emergency, and the written direction of NYSERDA, permits fuel from the Reserve to be sold to suppliers and distributors to provide fuel for emergency responders, municipal and government customers, and retail outlets, as determined for the emergency event.

The Fuel NY Initiative[14] is intended to ensure access to motor fuel in the event of a declared energy or fuel supply emergency. Between May 2013 and January 2019, the program supported deploying and installing 851 transfer switches and 195 permanent generators to downstate retail motor fuel stations (i.e., Rockland, Westchester, Suffolk, and Nassau counties, and New York City). The infrastructure investments at these locations have made more than 1,000 stations capable of providing backup power, a stark improvement in resilience compared to approximately 20 stations that had these same capabilities before Superstorm Sandy.

Pursuant to its general authority regarding electric and gas corporations,[15] the PSC has assumed a leadership role for electric systems and natural gas emergencies. Following events that affect utility service, the staff arm of the PSC—the Department of Public Service (DPS)—conducts a detailed review of utility restoration efforts. In the event of power failures in a utility's service territory, the PSC publishes detailed reports of the event on its website and suggests mitigation efforts to be taken by utilities.[16] Additionally, DPS rules and regulations provide criteria for electric utility emergency plans designed for prompt restoration of service in an emergency event involving widespread outages.[17] designed for prompt restoration of service in an emergency event involving widespread outages.[18]

Additionally, under a State Declaration of Disaster Emergency, the governor may issue an executive order (EO) that directs State agencies to take actions necessary to protect the public health and safety. All these powers must be exercised in a manner that (1) does not conflict with federal law, (2) may be exercised notwithstanding any State or local law or contractual agreement to the contrary, and (3) are in addition to any other emergency powers vested in the governor that they may choose to delegate to NYSERDA's president. Other State agencies and departments may also have specific legal bases that require or authorize certain emergency planning and response actions that are not included in this document. The governor may issue an EO that directs State agencies to take actions necessary to protect the public health and safety. All these powers must be exercised in a manner that (1) does not conflict with federal law, (2) may be exercised notwithstanding any State or local law or contractual agreement to the contrary, and (3) are in addition to any other emergency powers vested in the governor that they may choose to delegate to NYSERDA's president. Other State agencies and departments may also have specific legal bases that require or authorize certain emergency planning and response actions that are not included in this document.

1.3 Involved State Agencies

The following New York State agencies, listed in alphabetical order, may be involved in the State's response to energy emergencies:

- **Department of Agriculture and Markets (AGM):** Obtains status of farm and agriculture fuel and energy requirements, maintaining liaison with farm and agriculture-related associations. Enforces compliance with the Fuel NY Initiative.
- **Department of Environmental Conservation (DEC):** Issues waivers of environmental restrictions and acts as liaison with the U.S. Environmental Protection Agency (EPA).
- **Department of Health (DOH):** Lead agency for nuclear and radiological emergency response and maintains liaison with the New York City (NYC) Department of Health and Mental Hygiene, hospitals, and other health-related agencies and facilities.
- **Department of Public Service (DPS):** Lead agency for electric system and natural gas emergency response. When the State Emergency Operations Center (EOC) is activated, DPS serves as the primary agency for Emergency Support Function (ESF) #12 and coordinates the activities of ESF #12 in conjunction with other member agencies. ESF #12 will activate in situations where a State-level, multiagency response is needed to facilitate the restoration of damaged energy systems and components during an incident.
- **Department of Transportation (DOT):** Assists in monitoring and expediting distribution of energy resources. Performs critical roadway maintenance. Coordinates with federal agencies for any necessary transportation system waivers.
- **Division of Military and Naval Affairs (DMNA):** Identifies potential impacts on military operations and identifies resources that can be used to mitigate a crisis.

- **Division of State Police (State Police):** Assists in emergency energy resource deliveries to critical or sensitive locations through activities such as vehicle escorts and traffic control and enforces other emergency response measures as required by statute.
- **Education Department (State Ed):** Maintains liaison with school districts and identifies needed energy supplies.
- **Empire State Development (ESD):** Provides information on impacts to market participants, maintaining liaison with regional tourism centers, business and trade groups, and utility companies.
- **New York State Energy Research and Development Authority (NYSERDA):** Acts as lead agency for petroleum and coal energy emergencies. Disaster Preparedness Commission (DPC) support member for State ESF #**12**.
    - Long Island Power Authority (LIPA): Non-DPC support member for ESF #12
    - New York Power Authority (NYPA): Non-DPC support member for ESF #12
- **NYS Homes and Community Renewal (HCR):** Administers the Weatherization Assistance Program for low-income households.
- **Office of the Attorney General (AG):** Supports enforcement actions as necessary.
- **Office of Emergency Management (State OEM):** Part of DHSES, it provides for the overall coordination of the State's emergency response. State OEM can coordinate oversight and management of major staging areas during emergencies that could require on-site fueling depots. When the State Emergency Operations Center (SEOC) is activated, State OEM provides oversight and coordination of the NYS ESFs including NYS ESF #12 (Energy), and NYS ESF #15 (External Affairs).
- **Office of Counter Terrorism (OCT):** Part of the DHSES, it oversees and coordinates State agencies' homeland security resources. Prescribes protective measures commensurate with current terrorist threats. Oversees the State's response to cybersecurity issues.
- **Office of General Services (OGS):** Maintains State-owned and managed facilities, c ollaborates on State-level centralized procurement of electricity, supports NYS ESF #7 (Logistics), and maintains contact with institutions supplied under State fuel contracts.
- **Office of Temporary and Disability Assistance (OTDA):** Administers the Low-Income Home Energy Assistance Program and emergency residential fuel programs.

1.4 Definitions

- See Appendix A for the most common terms used in the Energy Emergency Plan.

2 New York State Energy Emergency Management Structure

2.1 Objectives

This section outlines the administrative framework to be used to respond to serious or extended State energy emergencies. The structure involves several components that can be viewed as a series of sequential steps, beginning with identifying a short-term energy disruption, continuing through a gubernatorial declaration of an actual energy emergency, and ending with an evaluation of the implementation of policies and actions taken to mitigate its impact. The following are the broad objectives of the management structure:

- Gather information and assess the current and emerging situation.
- Ensure communication and coordination among government decision-makers.
- Establish appropriate emergency response measures.
- Assign responsibility for implementation of specific response mechanisms.
- Direct implementation of the emergency response measures.
- Monitor and evaluate results.

2.2 Energy Emergency Operations

Lead agency responsibility in the event of a severe or extended energy emergency is assumed by either NYSERDA or DPS, depending on the type of energy involved. NYSERDA assumes lead agency status for petroleum or coal supply emergencies. DPS assumes lead agency status for electric systems, natural gas, steam, and liquefied natural gas (LNG) emergencies. State OEM assumes responsibility for coordinating the State response, including the activation and operation of the SEOC, as necessary. DPS serves as the coordinating agency, and NYSERDA serves as a supporting agency for ESF #12 (Energy). NYSERDA and DPS also receive support from other State agencies and local distribution companies.

The lead agency for cybersecurity issues in New York State, including impacts on critical infrastructure and the energy system, is the OCT, which is part of DHSES. As demonstrated by the Colonial Pipeline cyber incident in May 2021, cybersecurity plays a key role in affecting critical infrastructure and potential disruptions of the energy system. During a cybersecurity event affecting the petroleum system, NYSERDA will help facilitate and coordinate the petroleum industry response with the OCT and federal partners, including the U.S. Department of Energy Office of Cybersecurity, Energy Security, and Emergency Response (CESER). The NYS Cyber Security Annex provides additional information for preparedness and response actions associated with cybersecurity issues.

Together, the lead agency and State OEM coordinate collecting, assessing, and disseminating information necessary to implement individual response measures comprising specific emergency response programs. Depending on the emergency, the lead agency's functions could include the following:

- Monitor energy price, supply, and demand data received from primary and secondary sources:
  - All petroleum and propane railcar, barge, and tanker energy supply movements.
  - Natural gas, LNG, steam, and electric utility services.
  - Inventory of affected fuels in the wholesale and commercial sectors.
- Expedite appropriate waivers for truck, railcar, and waterborne shipments of liquid and solid fossil fuels (e.g., oil, propane, and coal).
- Coordinate alternative fuel substitution for natural gas and electricity users.
- Estimate the impacts of emergency measures on energy supply and demand levels, industry, and the economy.
- Develop energy emergency response recommendations.
- Initiate emergency measure implementation actions.
- Prepare information and analyses for decision-makers and the media.

The lead agency and State OEM are responsible for coordinating information flow and fielding inquiries as needed from all levels of government. A hotline may be used to respond directly to the public's inquiries, and a Joint Information Center (JIC) may be established to disseminate information to the media and the public. A nucleus of NYSERDA or DPS staff work with managers, and analysts have been assigned to assist with the emergency response from various State agencies.[19] The responsibilities of NYSERDA, DPS, and State OEM are presented in sections 2.2.1 through 2.2.3.

2.2.1 New York State Energy Research and Development Authority

NYSERDA plays a critical role in managing energy emergencies related to petroleum products, liquid biofuels, as well as supporting energy infrastructure during energy emergencies, including:

- Serves as lead agency for petroleum products, liquid biofuels, coal emergency response, and the Fuel NY Initiative for the NYS Strategic Fuel Reserve. Assists in implementing petroleum and coal emergency procedures. Assists in natural gas markets and infrastructure intelligence.
- Serves as a supporting agency for ESF #12 (Energy).
- Monitors the overall fuel price, supply, and demand situation.
- Discusses potential corrective actions or interventions with major energy suppliers and key State agencies.
- Issues emergency orders and directives as necessary and appropriate.
- Operates a public relations center in close coordination with the JIC (discussed later in this plan) and maintains liaison with the media and local governments.

2.2.2 Department of Public Service

DPS is responsible for overseeing energy emergency responses related to electric systems, natural gas, steam, and LNG, while coordinating efforts to ensure the stability and security of the State's energy infrastructure during emergencies, including:

- Serves as lead agency for electric system, natural gas, steam, and LNG emergency response and assists in implementing electric, natural gas, steam, and LNG emergency procedures.
- Serves as the coordinating agency for ESF #12 (Energy).
- Monitors status of interruptible industrial and commercial natural gas users and users with dual fuel capability.
- Maintains liaison with the electricity and natural gas dispatch centers of the State's investor-owned local distribution companies (LDCs), electric generators, energy service companies and marketers, other wholesale suppliers, and key State agencies.
- Maintains liaison with the New York Independent System Operator (NYISO) and Northeast Gas Association (NGA).
- Maintains communication with State OEM.
- Maintains liaison and communication with the large electric and natural gas utilities, DHSES, New York State Intelligence Center (NYSIC), NYS Office of Information Technology Services (OITS), and NYISO for cyber or physical security incidents that result in severe or extended energy emergency.

2.2.3 Office of Emergency Management

State OEM leads the State's response to energy emergencies:

- Coordinates the State's response to the emergency.
- Coordinates with federal, State, and local entities as appropriate.

State OEM, NYSERDA, and the PSC are member agencies of the DPC, a multiagency organization charged with responding to a wide range of natural and manmade disasters in the State.

2.3 The Role of Local Governments

Local governments are the first point of contact for most residents and businesses seeking information and assistance during energy emergencies or supply disruptions. State OEM and the lead agency consult with local governments to determine the existence of unusual conditions or events that should be addressed. The following conditions might require special attention:

- Local laws, regulations, and ordinances that might impede the success of emergency response programs.
- Local policies regarding traffic flow, routes, and transit service that can potentially improve the effectiveness of energy emergency response measures initiated at the State level.[20]
- Unusual energy use patterns not adequately represented by aggregate data.
- Fuel requirements for essential municipal services and alternative operational patterns.

2.3.1 County Emergency Managers

Each county's emergency manager coordinates local emergency response activities for the county executive or chief elected official and advises the county executive or chief elected official regarding the need for declaring a local state of emergency based on the severity of the situation and the necessity to use additional executive power to respond effectively to the emergency. The emergency manager is expected to:

- Activate the county's response organization and initiate county response activities.
- Notify and brief county departments, agencies, and other organizations involved in an emergency response.
- Maintain and manage an EOC.
- Facilitate coordination between the county and the following entities:
    - Lead agency.
    - Towns, cities, and villages in the county.
    - County executives or chief elected officials.
    - State of New York.
    - Private emergency support organizations.
    - Other stakeholders and parties as applicable.

2.3.2 City and County Energy Coordinators

On a voluntary basis, local municipal government officials appoint staff to serve as energy coordinators and assist in processing emergency fuel inquiries,[21] conducting fuel-related surveys, submitting various reports, and generally identifying potential fuel problems in localities throughout the State. The city and county energy coordinators' network are a vital link between consumers and the State government. State OEM maintains an updated list of local energy coordinators and coordinates periodic training on the energy coordinators' roles and responsibilities.[22]

2.3.3 New York City Office of Emergency Management

The New York City Office of Emergency Management (NYC-OEM) was created in 1996 to ensure interagency coordination before, during, and after disasters or emergencies. Its mission includes planning, preparing for, and mitigating emergencies; educating the public on preparedness; coordinating and supporting responses to and recovery from emergencies; and collecting and disseminating critical information. NYC-OEM maintains a corps of emergency management personnel, including responders, planners, watch commanders, and administrative and support staff, to identify and respond to various hazards and assist federal, State, and City officials with emergency response. NYC-OEM's public information staff provide accurate, timely information to the public and media organizations. In 2004, NYC-OEM established New York City's Citywide Incident Management System (CIMS), the City's implementation of the National Incident Management System (NIMS), established a formal command matrix, and provided a protocol for governing how city agencies should respond to emergencies established by a formal command matrix, and provided a protocol for governing how city agencies should respond to emergencies.

2.4 Federal and State Liaisons

In order to establish a coordinated response to energy shortages, NYSERDA maintains an ongoing liaison with federal officials and other states' emergency planners, particularly in the neighboring New England and Mid-Atlantic states. As the energy supply and demand situation dictates, NYSERDA may need to interact with federal energy officials and other states' energy officials to obtain information or discuss specific management strategies. Several formal and informal mechanisms are available throughout the federal government to coordinate energy emergency information. However, the emergency response management process in the U.S. Department of Energy (DOE) is now primarily limited to communication exchange. The DOE maintains an emergency contact list to expedite communications with the states. The DOE Office of Electricity Delivery and Energy Reliability conducts outreach and coordination programs to facilitate timely information exchange and provide a central point of contact for energy emergency preparedness.

Table 1. Energy Emergency Response Agency Responsibilities

Agency	Responsibility
New York State Energy Research and Development Authority (NYSERDA)	• Serves as lead agency for petroleum, liquid biofuels, and coal emergency response and the Fuel NY Strategic Fuel Reserve Initiative. Assists in implementing petroleum and coal emergency procedures. • Monitors international and national energy markets and the effect on the overall fuel price, supply, and demand in NYS. Discuss potential corrective actions with major energy suppliers. • Issues emergency orders and directives as necessary and appropriate. • Operates a public relations center and maintains liaison with the media and local governments for liquid fuels.
NYS Department of Public Service (DPS)	• Serves as lead agency for electric system, natural gas, steam, and LNG emergency response. Assists in implementing electric and natural gas emergency procedures. • Serves as the coordinating agency for ESF#12 (Energy). • Monitors status of interruptible industrial and commercial natural gas users and users with dual fuel capability. • Maintains liaison with the electric, natural gas, and steam dispatch centers of NYS's investor owned LDCs, electric generators, energy service companies and marketers, wholesale suppliers, and key NYS agencies. • Maintains liaison with the ISO and NGA. • Maintains communication with State OEM. • Maintains liaison and communication with the large electric and natural gas utilities, NYPA, LIPA DHSES, NYSIC, OITS, and NYISO for cyber and/or physical security incidents that result in a severe or extended energy emergency.
NYS Office of Emergency Management (State OEM)	• Provides coordination of NYS response. • Manages or co-manages major staging areas during emergencies that could require on-site fueling depots. • Runs the JIC; manages ESFs and ad hoc taskforces under the State's CEMP.
NYS Agriculture and Markets (AGM)	• Maintains liaison with farm and agriculture-related associations. • Obtains status of fuel requirements for seasonal agricultural production. • Enforces compliance with the Fuel NY Initiative as it relates to Article 16 § 192-h of the NYS Agriculture and Markets Law for alternative power sources at retail gasoline outlets.
NYS Empire State Development (ESD)	• Maintains information on status of industry and commercial closings due to energy shortages. • Provides information on energy supply circumstances affecting specific industries. • Maintains liaison with regional tourism centers, businesses, trade groups, and utility companies.
NYS Education Department (State Ed)	• Maintains liaison with all school districts. • Coordinates with school administrators to identify needed energy supplies.

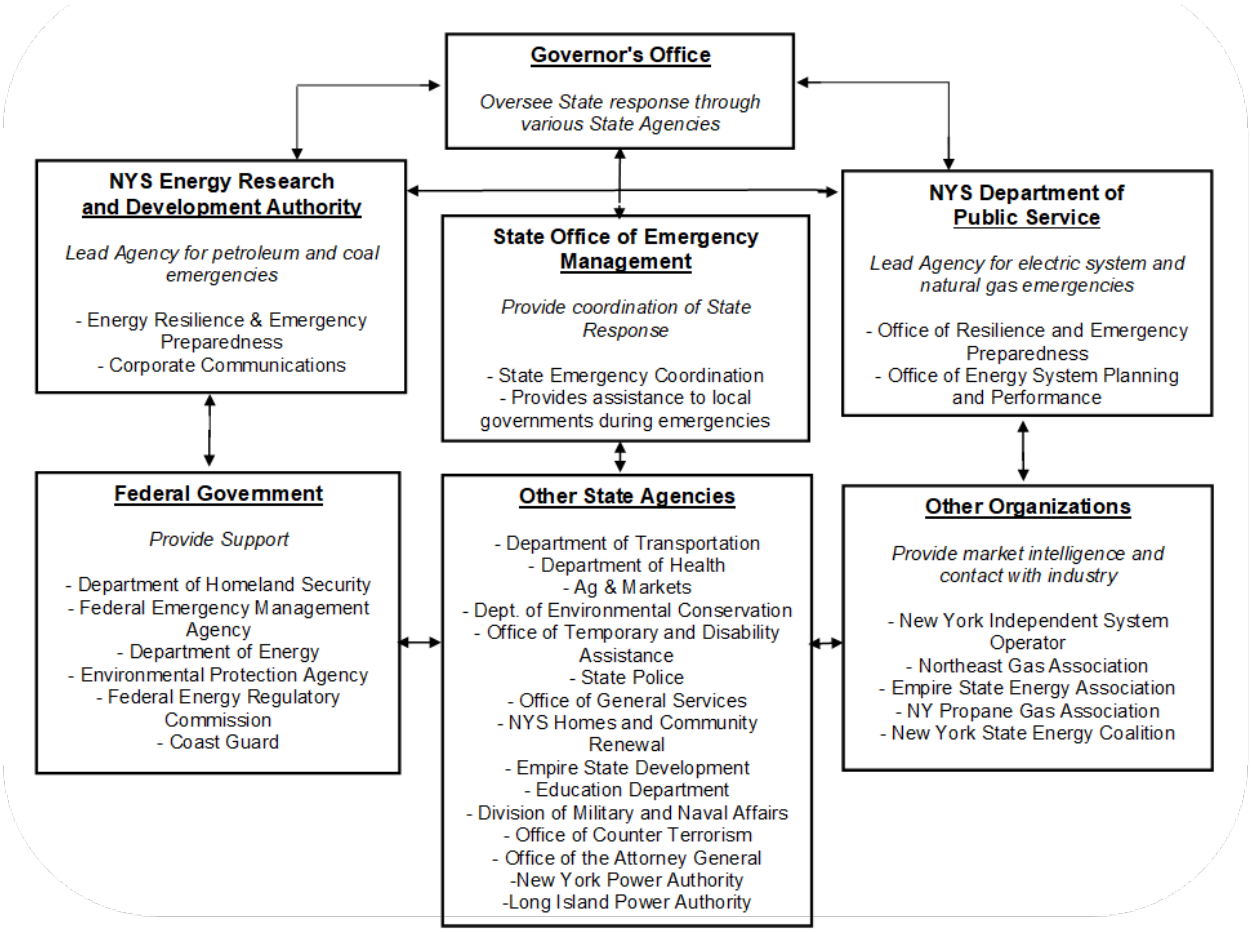
Table 1. (continued)

Agency	Responsibility
NYS Division of Military and Naval Affairs (DMNA)	• Identifies fuel shortages affecting military operations. • Prepares inventory of available heavy equipment and supplies. • Assists with fueling missions supporting convoy escorts, security, traffic control, and staging area operations.
NYS Department of Transportation (DOT)	• Assists in preparations to expedite energy resource deliveries when necessary. • Coordinates with federal agencies for any necessary waivers (e.g., weight restrictions, driver's hours of operation, geographical area limitations) to expedite fuel distribution. Conducts maintenance operations such as snowplowing, sanding, and traffic signals. • Coordinates with the Port of Albany and the U.S. Coast Guard for ice-breaking operations on the Hudson River to facilitate winter fuel deliveries. • Maintains liaison with appropriate federal agencies, such as U.S. Department of Transportation and local transit authorities.
NYS Office of General Services (OGS)	• Manages the operation of approximately 55 NYS-owned facilities statewide. Solely responsible for supporting and managing the energy needs of numerous NYS agencies that occupy these facilities. • Collaborates in the design, oversight, policy development, and administration of the centralized electricity procurement for all large OGS facilities and large facilities of other NYS agencies. • Receives emergency resources or assistance requests from State OEM or the SEOC when activated as a support member of ESF #7 (Logistics). • Maintains contact with all institutions supplied under NYS fuel contracts, including gasoline and E85 (flex fuel), diesel engine fuel, heating fuel oil, LP gas (propane), and natural gas.
NYS Office of Temporary and Disability Assistance (OTDA)	• Oversees and supervises local districts in administering the HEAP to assist eligible households in meeting home energy costs. Program components include regular, emergency, heating equipment repair/replacement, cleaning and tuning, and cooling. • Provides funding to HCR for the WAP and to NYSERDA for energy efficiency services. • Coordinates with the PSC, HCR, NYSERDA, and the State Office for the Aging on HEAP energy-related matters for low-income families. • Manages relationships with over 3,000 energy vendors, including large electric and natural gas utilities, municipal utilities, vendors of deliverable fuels such as oil, kerosene, propane, wood, and wood products, as well as vendors that perform heating and air conditioning services. Activities include negotiating vendor agreements, certifying participating vendors, and maintaining a central vendor database.
NYS Homes and Community Renewal (HCR)	• Determines status of State-assisted housing fuel and energy requirements and maintains liaison with housing owners and statewide associations. • Coordinates WAP network response to decrease energy use in low-income housing units. • Issues energy conservation recommendations to all HCR-regulated property owners.
NYS Division of State Police (State Police)	• Assists in emergency energy resource deliveries to critical or sensitive locations through vehicle escorts and traffic control and enforces other emergency response measures as required by statute.

Table 1. (continued)

Agency	Responsibility
NYS Office of Counter Terrorism (OCT)	• Oversees and coordinates NYS agencies' homeland security resources. • Recommends and communicates changes to National Terrorism Advisory System threat alert level. • Reviews and assesses measures taken to protect energy-related critical infrastructure by NYS agencies and others. • Prescribes protective measures commensurate with current terrorist threat. • Chairs the Critical Facilities and Infrastructure Branch as well as the Fuel Taskforce and Pump and Generator Taskforce. • Takes the lead for cybersecurity issues.
NYS Department of Environmental Conservation (DEC)	• Issues waivers of environmental restrictions (e.g., sulfur in fuel content standards). • Maintains liaison with the U.S. Environmental Protection Agency.
NYS Department of Health (DOH)	• Maintains liaison with the NYC Department of Health and Mental Hygiene, hospitals, and other health-related agencies and facilities. • Acts as the State's lead agency for nuclear and radiological emergencies.
NYS Office of the Attorney General (AG)	• Support enforcement actions as necessary.

Figure 1. Organizations Involved in State Energy Emergency Planning Activities



3 Federal Emergency Response

3.1 Federal Energy Emergency Authorities

Federal energy policy relies largely on market forces to allocate energy supplies during a severe shortage or state of emergency. Often, the first noticeable effect of a supply shortage is a sharp rise in prices above the recent prevailing average. In general, consumption of fuel supplies declines in response to the higher prices, and available supplies are attracted to higher-price areas.

The National Response Framework (NRF) and NIMS were developed by the federal government to integrate the various federal domestic prevention, preparedness, response, and recovery plans into a single all-discipline, all-hazards approach. The NRF is supported by the NIMS, a national system that creates standardized incident management processes, protocols, and procedures. The following federal emergency response plans are linked by the NRF:

- Federal Response Plan (FRP)
- U.S. Government Interagency Domestic Terrorism Concept of Operations Plan
- Federal Radiological Emergency Response Plan
- Mass Migration Response Plans
- National Oil and Hazardous Substances Pollution Contingency Plan

The NRF includes ESF #12 (Energy) that was formerly part of the FRP and is implemented in anticipation of a significant event likely to result in a need for federal assistance and/or in response to an actual event requiring federal assistance under a presidential declaration of a major disaster or emergency. The DOE is the lead federal agency when the federal ESF #12 (Energy) is activated.[23] Within ESF #12 (Energy), the DOE is responsible for the following:

- Forecasts energy price, supply, and demand and estimates system damage.
- Advises local authorities on energy restoration, assistance, and supply priorities.
- Provides recovery coordination to affected parties.
- Provides regular incident situation reports.
- Provides a single point of access for departmental assets and expertise.
- Serves as an information clearinghouse on recovery assistance, funding, and emergency response resources and organizations for the energy sector.

The DOE also offers the following:

- Assists in the provision of temporary fuel supply.
- Recommends conservation actions.
- Reviews requests to the National Communications System for Telecommunications Service Priority.

The following are performed by the DOE to meet these responsibilities:[24]

- Collects and reports to Congress information filed by electric energy generators, transmitters, and distributors on loss of firm load, system voltage reductions or public appeals, bulk system operational actions, and fuel supply emergencies.
- Assists affected energy stakeholders in obtaining repair crews and materials from outside affected areas.
- Assists affected energy stakeholders in dealing with the Federal Emergency Management Agency (FEMA) by coordinating with publicly owned electric, gas, and lifeline utilities in applying for FEMA cost sharing for repairs.

Other major federal agencies and offices that respond to energy emergencies include:

- U.S. Environmental Protection Agency (EPA)[25]
- Federal Energy Regulatory Commission (FERC)[26]
- Federal Emergency Management Agency (FEMA)[27]
- U.S. Department of Transportation (U.S. DOT),[28] which has several subagencies that may relate to an energy emergency, including:
    - Office of Pipeline Safety (OPS)[29]
    - Federal Maritime Administration (FMA)[30]
    - Federal Motor Carrier Safety Administration (FMCSA)[31]
    - Federal Rail Administration (FRA)
- U.S. Department of Homeland Security (DHS)[32]
- U.S. Department of Defense (DOD)[33]
- U.S. Coast Guard[34]

This list is not all-inclusive. Other federal agencies may be contacted as needed. A useful compendium of federal authorities, responsibilities, and capabilities is available in the National Association of State Energy Officials (NASEO) State Energy Assurance Guidelines document.[35]

3.2 Federal Policy Options

Programs and energy policy options available at the federal level to deal with energy emergencies include:

- **Increased Monitoring of Market Supply, Demand, and Price Fundamentals**
  The DOE's Energy Information Administration (EIA) administers the current federal market monitoring system for obtaining weekly petroleum fuel inventory reports at the federal, regional, and state levels. The EIA produces inventory reports for natural gas at the national and regional levels. The petroleum and natural gas inventory reports help alert decision-makers to an impending emergency and determine the severity of supply shortages or restrictions by location. EIA works with energy companies to gather and disseminate information and analyze data.

  The monitoring system is designed to obtain accurate and timely information and is used to calm markets, helping to avoid panic behavior by consumers or businesses. Collecting this information is critical to ensure the supply and distribution system responds effectively to emergencies. Mitigating a deteriorating energy emergency depends on objectively analyzing appropriate energy price, supply, and demand data.
- **Release of Crude Oil Stockpiles Contained in the Strategic Petroleum Reserve (SPR)**[36]
  The federal SPR program was authorized by the Energy Policy and Conservation Act of 1975 (EPCA).[37] The SPR was established to diminish the U.S.'s vulnerability to a severe petroleum supply interruption and serves to meet the nation's obligations under International Energy Agency (IEA) oil-sharing agreements. Historically, the primary objective of drawing down the SPR has been to move crude oil into the distribution system at a specified rate to replace lost imports.
- **Northeast Home Heating Oil Reserve**[38]
  On July 10, 2000, a 2-million-barrel home heating oil component of the SPR in the Northeast was established. The intent was to create a buffer large enough to allow commercial companies to compensate for interruptions in supply or severe winter weather. The reserve, which now equals 1 million barrels of ultra-low sulfur diesel (ULSD), is held in three terminals in Connecticut, Massachusetts, and New Jersey.
- **Encourage Fuel-Switching and Provide Environmental Waivers**
  The EPA can expedite voluntary power generation at coal plants to facilitate interregional power transfers that displace oil or natural gas, pursuant to Section 202(c)(1) of the Federal Power Act.[39] Additionally, in states with fuel-burning stationary sources, the governor may Additionally, in states with fuel-burning stationary sources, the governor may petition the president to determine that a national or regional energy emergency exists, and thus, a temporary emergency suspension of any applicable implementation plan or any requirement under Section 411 of the Clean Air Act (CAA). This includes penalties for excess emissions or offsets of Title IV of the Act.[40]
- **Restrict Use of Natural Gas or Petroleum as a Primary Fuel**
  Under the Powerplant and Industrial Fuel Use Act of 1978,[41] the president has the authority to prohibit any power plant or major fuel-burning installation from using natural gas or petroleum as a primary fuel during an emergency.

4 Energy Markets Intelligence

NYSERDA continually updates the essential price, supply, and demand databases that alert staff to impending energy supply problems. Staff compile, analyze, and disseminate weekly, monthly, and annual energy statistics relevant to global, national, and NYS energy markets and trends. Relevant data is also received from federal agencies and the trade press regarding pricing and supply and demand fundamentals, as well as the status of the distribution networks serving the State.

NYSERDA staff communicate with private sector firms, their associations, and corresponding State, regional, and federal officials to ascertain market conditions before and during energy events. NYSERDA staff compile this data into the following reports:

- Weekly Energy and Fuel Markets Report[42] and Heating Fuels Prices Dashboard.[43]
- Heating Fuels Inventory Review (monthly in July and August if need is determined).
- Transportation Fuels Market Assessment (spring and summer if need is determined).
- Patterns and Trends, NYS Energy Profiles (annually, released in fall/winter).[44]
- Winter Fuels Outlook (annually, released in the fall).
- Monthly Wholesale Electric Price Report.
- Weekly Summer Electricity Outlook Report (summer months if need is determined).
- Transportation Fuels Dashboard (weekly, year-round).[45]

In addition to these formal reports, NYSERDA staff perform the following activities:

- Continually update weekly and monthly petroleum, natural gas, and electricity price, supply, and demand data series, both nationally and regionally.
- Maintain up-to-date petroleum fuel price and supply information on NYSERDA's website.

Advance indications of an impending petroleum supply and demand imbalance may be determined by staff as part of their regular analysis of energy price and supply data. NYSERDA monitors developments (e.g., industry-labor negotiations, rail disruptions, barge movements) that could lead to a petroleum shortage.

For liquid petroleum fuels, supply and demand data are studied to prepare for allocation or redistribution of supplies. Electric generators are surveyed to determine their stockpile levels, estimates of resupply needs, and alternative supply options if any. DPS is the lead agency for all electric, natural gas, steam, and LNG emergencies. Details of NYS's emergency planning for electric and natural gas emergencies can be found in the DPS Emergency Plan.

4.1 Petroleum

New York State and the Northeast are heavily dependent on foreign countries and other U.S. regions for crude oil and refined petroleum products, more so than most regions of the country. The State's consumers and businesses are significantly more vulnerable than other regions of the country during periods of supply disruptions in oil-producing nations or during any instances of distribution bottlenecks or infrastructure breakdowns.

Refined petroleum fuels are supplied through a complex, multilevel distribution network consisting of domestic and foreign refiners, brokers, futures and spot market investors, importers, and regional and local distribution companies. Rapid demand increase, disruptions in regional or local supply chains, or market concern over such changes in supply/demand dynamics may lead to sudden price increases above the recent prevailing average. These price increases reduce consumer discretionary income, increase business costs, and shift financial resources out of the State to purchase additional energy supplies.

Petroleum market dynamics in New York State have been affected greatly by energy company mergers, buyouts, and market withdrawals. Over the years there has been a growing reliance on a smaller number of retail outlets, a reduction in overall statewide terminal storage capacity, and the trend toward just-in-time inventory management practices. These factors combined with the increased use of financial instruments by large distributors, rather than holding physical inventories to ensure future supplies, has increased the potential impact of interruptions in the supply and distribution of petroleum fuels.

4.1.1 Motor Gasoline and Transportation Diesel Fuels

NYS consumers and businesses rely on petroleum fuels to meet approximately 91% of transportation needs.[46] Gasoline is the primary automotive fuel, accounting for approximately 44% of all petroleum consumed in the State in 2022.[47] Diesel is also an important fuel used in the transportation sector. Demand for these fuels typically peaks during the summer driving season. However, transportation diesel (ULSD) may come under supply and price pressure during the winter months because this fuel is also used both as a home heating fuel and in the electric generation sector.

The continuous flow of distillate fuels (e.g., diesel, home heating oil, and kerosene)—which are consumed in the residential sector for space and water heating, in the commercial and industrial sectors for power and space heating, in the transportation sector to move goods and people, and

for electricity generation—has become increasingly exposed to supply uncertainty. The expanded role of imported products to meet NYS's distillate requirements increases the risk to consumers of petroleum fuels in an emergency. Evolving oil industry supply and distribution practices to a just-in-time supply de-emphasizes inventory buildup, which increases the risk that short-term cold or severe weather will disrupt deliveries or sharply increase demand. Either event may lead to a supply imbalance and result in price spikes.

Distillate fuels are vital to the health and welfare of NYS residents. In 2022, approximately 15% of homes in the State were heated with home heating oil or kerosene.[48] These homes generally have a 275-gallon storage tank,[49] providing only limited protection in the case of a supply or delivery interruption. Diesel fuel is the primary liquid fuel for truck, bus, and train transport. All three fuels—kerosene, home heating oil, and diesel—are also used in the electricity generation sector as either a primary fuel or as a secondary backup fuel for natural gas. The surge in demand for distillate fuels by traditional natural gas users at the same time that the residential sector is also increasing demand has the potential to seriously disrupt the supply availability of distillate fuels to all economic sectors.

4.1.2 Propane

Propane, or liquefied petroleum gas (LPG), represents a small proportion (3.0% in 2022) of total petroleum use in the State.[50] However, it is an important "specialty" fuel, vulnerable to supply shortfalls. Most residential propane users live in suburban and rural areas of the State and depend on propane for cooking, space heating, and hot water needs. The residential sector accounted for 61% of the State's propane demand in 2022.[51] These residential consumers, particularly those living in mobile homes, generally lack any alternative source of energy.

New York State receives a significant amount of propane from producing areas in the Marcellus and Utica shale regions via the Enterprise TE Products Pipeline owned by Enterprise Products Partners L.P. The company also maintains truck-loading terminals and storage facilities in Selkirk, Oneonta, and Watkins Glen, all in New York State. In addition to the loading terminal, the Watkins Glen facility has an underground cavern capable of storing over 1 million barrels of propane. The balance of supplies consumed in New York State are transported into the area by truck and railcar to numerous rail distribution terminals located throughout the State. The transportation of this fuel originates from refineries and natural gas processing facilities in the U.S. Mid-Atlantic and Midwest regions and Canada.

Pipeline deliveries pose a concern for emergency planners because of the inability to increase deliveries significantly during periods of unusually cold weather, due to the physical constraint of the pipeline's volume and pumping capacity. Distributors must rely on additional supplies entering the region via rail, car, or truck. However, these transportation modes are particularly vulnerable to weather-related disruptions such as icy roads, storms, or the availability of surplus railcars. As overall demand in New York State has increased, supply flexibility improvements have been made by the Enterprise TE Products Pipeline resulting in the increased throughput of volumes on the pipeline, and by the development of several rail-supplied distribution terminals.

4.1.3 Liquid Biofuels: Ethanol and Biodiesel

Ethanol and biodiesel are important liquid biofuels used in NYS's energy economy. Biodiesel can be used both in transportation blended with on-road diesel as well as blended in heating oil. All heating oil sold for use in any building in New York State must contain at least 5% biodiesel by July 1, 2022, 10% by 2025, and 20% by 2030. Blending requirements are already implemented in Long Island and New York City.

Ethanol is primarily used in New York State blended in with unfinished gasoline components to create a finished gasoline product. Most ethanol in New York State is blended at a level of 10% but ethanol can be blended up to 15% in gasoline in the State, also known as E15 but cannot be blended between 15% to 50%. Ethanol is allowed to be used as a fuel over 50% but is no longer considered gasoline such as E85, which contains 85% ethanol. New York State uses approximately 1.5 million gallons of ethanol per day. Ethanol is primarily moved into the State by rail. Waterborne shipments of ethanol by barge travel across New York Harbor, to Long Island, and up the Hudson River transporting ethanol from larger petroleum terminals in New Jersey to smaller terminals in New York State. However, those facilities and supplies are nearly entirely dependent on unit trains of ethanol arriving from the Midwest. In 2021, East Coast ethanol fuel supply primarily came by rail from the Petroleum Administration for Defense District (PADD) 2 (the Midwest) with 90% of supply from that transportation method and geographic area. The remaining ethanol supply came from regional production (4%), barge shipments from the Midwest (3%), and barge shipments from the Gulf Coast to the Lower Atlantic region (3%).

4.2 Coal

In 2022, approximately 0.2 million tons of coal were used in New York State, representing less than 0.1% of the nation's demand. The industrial sector, including cement plants, accounted for this

consumption, and the residential, commercial, and transportation sectors did not record any significant use. 2021 represented the first year where coal consumption did not contribute to electric generation.[52] This represents the culmination of a 20-year decreasing trend in coal usage in the state, when coal generated electricity in New York State decreased from 16% of the total electricity generated in the state to zero. The State ranked 41st in coal use for 2022.

Since April 1, 2020, no coal-fired electricity generating plants have operated in the State since the State's last coal-fired power plant closed in March 2020. Of the other in-state demand for coal that year, nearly 100% of domestic coal was delivered by rail to New York State, but trucks also move a minimal amount of coal to end users. Quickly increasing coal availability requires cooperation between the State and federal governments as well as the coal and rail industries. The most likely events to trigger an extended interruption in coal supply are a rail or miner's strike. Current labor relations should be monitored for these issues because a strike-related production cutoff of a large enough magnitude would make it increasingly difficult to meet demand after on-site stockpiles were exhausted.

Although coal seems universal in form, it varies significantly by several important parameters, including its energy, sulfur, and moisture content(s); hardness; volatility; and ash fusion temperature. Often coal supplies for one user are not suitable for another because boilers and coal-handling equipment are designed to use a specific type of coal.

4.3 Electricity

Primary legislative authority for most types of electric system emergencies rests with DPS. As a result, DPS staff have the lead role in any electric system emergency affecting or occurring in the State. NYSERDA is responsible for emergencies involving petroleum fuel supply or deliverability problems. The highly integrated nature of the electric system requires that the New York Independent System Operator (NYISO) and one or more individual utilities coordinate actions involving transmission, distribution, or generation supply problems. The degree of government involvement depends on the nature and expected duration of the problem. System blackouts and recovery might be handled entirely by NYISO or an individual electric utility, while any major distribution system damage might involve greater coordination with DPS staff.

NYISO coordinates the operation and dispatch of the generating facilities in the State, electricity imports, and the flow of electricity across the bulk power transmission system. In addition, NYISO facilitates fair and open competition in the wholesale power market and creates an electricity commodity market in

which power is purchased and sold based on competitive bidding. It uses a bid process for electricity and transmission usage, which enables NYS utilities and other market participants to offer electricity at competitive prices instead of regulated rates.

NYS utilities participate in the Northeast Power Coordinating Council (NPCC), one of eight regional councils that comprise the North American Electric Reliability Council (NERC). Both NPCC and NERC have promulgated mandatory standards that apply to the operation of the bulk electric grid and are enforced by the Federal Energy Regulatory Commission (FERC).

Additionally, NPCC and the New York Reliability Council (NYRC) have mandatory rules that the ISO and utilities must follow in bulk electric grid operations that the PSC enforces.

NYS agencies work with the NYISO in emergency electric energy situations to implement preauthorized crisis operating policies; assist any affected utility or utilities in enforcing mandatory conservation measures when necessary; ensure efficient and smooth flow of information concerning the emergency to the appropriate levels of government and the media; and redirect available supplies of excess fuel to affected utility generating stations. Specifically, a protocol is in effect between the NYISO, DPS, DEC, NYSERDA, and DOT implemented under circumstances where electric generation unit fuel supply may be at risk, thereby posing risks to electric system reliability.

Electric vehicle adoption is growing in the State, increasing the importance of the electricity sector in providing energy for the transportation end-use sector. As of January 2025, more than 271,000 electric vehicles were on the road in New York State.[53]

4.4 Natural Gas

Primary legislative authority for most types of natural gas system emergencies rests with DPS. As a result, DPS staff have the lead role in any natural gas system emergency affecting or occurring in the State. The degree of government involvement depends on the nature, severity, and expected duration of the problem.

New York State used approximately 1,359 billion cubic feet of natural gas in 2022,[54] making it the seventh largest gas-consuming state in the nation. The State has approximately 5 million natural gas customers[55] served by various LDCs,[56] which depend on major interstate and intrastate pipeline

systems to access domestic and imported natural gas supplies.[57] Gas production in New York State meets approximately 0.7% of its natural gas requirements.[58]

New York State is served by 11 interstate pipelines, delivering nearly all the State's natural gas supply from other states, principally the Marcellus and Utica shale regions in Pennsylvania, as well as from the Gulf Coast and some pipelines crossing the international border from Canada.

Most utilities in the State purchase most of their winter firm gas supply from the Marcellus and Utica shale regions and the rest of the gas supply is from the Gulf Coast, Canada, and local supply regions. Almost all the natural gas consumed in the State is delivered to an LDC Citygate on interstate pipeline capacity contracted directly from the interstate pipelines or purchased at the Citygate and delivered by other parties holding pipeline capacity on the interstate pipeline system.

Gas pipeline capacity is insufficient to meet peak demand, leading to tight supply conditions during winter peak periods. Constrained supply into the State has affected the ability of natural-gas–fired power plants to get necessary supply during peak periods when gas utilities use most, if not all, of the pipeline capacity into the region to serve gas utility heating demands. To meet electric demand without the desired amount of natural gas, NYISO ramps up non-gas–fired generators, switches some dual-fuel natural gas generators to distillate fuel oil, and tries to import more electricity from neighboring grids. This can be especially challenging in the Downstate New York area where local power generation is primarily fueled by natural gas.

4.5 Steam

The primary legislative authority for most heat, light, and power emergencies rests with the DPS. As a result, DPS staff have the lead role in any steam emergency affecting or occurring in the State. The degree of government involvement depends on the nature, the severity, and the expected duration of the problem.

4.6 Liquified Natural Gas

The primary legislative authority for most natural gas system emergencies also rests with the DPS. As a result, DPS staff have the lead role in any liquified natural gas (LNG) emergency affecting or occurring in the State. The degree of government involvement depends on the nature, the severity, and the expected duration of the problem.

5 Response Actions

Effective energy resilience and energy emergency response strategies are designed to be flexible and staged to become increasingly more intensive as an emergency grows more serious. Emergency planning is intended to facilitate appropriate and flexible emergency response, while not unnecessarily imposing the constraints of a one-size-fits-all hierarchy. This plan documents various stages, classes, and types of emergencies and response actions for petroleum (including liquid biofuels), coal, electric system, and natural gas emergencies. At the onset of any energy emergency, the Energy Emergency Plan is reviewed by the lead agency to assess the applicability of individual response elements to the existing situation. Plan elements may be revised, excluded, or augmented to consider specific exigencies meriting response regardless of whether they are specifically referenced in this plan.

No specific type of energy emergency exists in isolation. A natural gas emergency may result in an electricity system emergency due to lack of fuel for electricity generation. The same natural gas emergency may result in a petroleum or coal emergency due to fuel switching. Similarly, a petroleum supply emergency may result in an electric system or natural gas emergency. The State's response to any energy emergency must be cognizant of the potential impacts to all State energy markets. The lead agency should consult with other affected agencies, as appropriate, when implementing response actions.

The State's energy resilience and energy emergency response actions follow a four-stage response hierarchy that generally reflects the severity of the energy or fuel supply situation. The response actions are presented sequentially by stages, but actual responses may be implemented concurrently depending on the emergency.

- Stage I, Increased monitoring: Conditions warrant increased monitoring of one or more portions of the energy supply and/or distribution system.
- Stage II, Market coordination: There is active coordination between energy supply distribution systems and NYS agencies to mitigate the effects of a potential emergency.
- Stage III, Public action: The public is asked to take action to lessen the impact of a potential emergency.
- Stage IV, Emergency declaration: The governor declares an energy or fuel supply emergency. Broad emergency powers are granted to the governor or the governor's designee.

5.1 Petroleum Emergencies

5.1.1 Lead Agency

NYSERDA is responsible for responding to liquid petroleum product emergencies (e.g., gasoline, heating oil, kerosene, diesel, propane, residual fuel). In the event of an in-state petroleum emergency or an out-of-state event immediately affecting petroleum supplies in New York State, NYSERDA acts as the lead agency. Support agencies implement their internal emergency response plans as needed, and their activities are coordinated by State OEM.

5.1.2 Potential Response Measures

The response activities described below for petroleum product shortages may be initiated by New York State in the absence of federal initiatives. The State's strategy for responding to petroleum product shortages places a premium on flexibility and informed choice rather than rigid formulas and procedures. The precise circumstances of a particular emergency dictate the appropriate response. A staged response involving pre-emergency and emergency elements is used in periods of market disruption.

In the case of petroleum products, the designation of pre-emergency Stages I through III, discussed below, are determined by the president of NYSERDA. If public health, safety, or general welfare is jeopardized by an energy supply situation, the governor may declare an energy emergency for the State as a whole or for individual areas of the State as necessary. After the governor has declared an energy emergency, the stand-by State fuel set-aside program for liquid fossil fuels may be activated if the president of NYSERDA finds that implementation of the program for one or more liquid fuels is necessary to prevent or alleviate energy hardships or shortages. A governor's energy emergency declaration beyond 6 months must be approved by the Legislature.

The nature of a given fuel supply emergency determines which response options are most appropriate. Criteria for evaluating and selecting relevant emergency response options may include the following:

- Energy savings potential: the amount of fuel saved or reduced.
- Adverse impact: the relative burden or hardship on end users and suppliers.
- Equity: the sharing of hardship or available supplies among end users.
- Administrative burden: the efficiency and flexibility of program operation.
- Compliance: the likelihood of cooperation, acceptance, and understanding of emergency measures.

- Environmental impacts: the review actions to reduce demand or consumption of the given energy source(s) under constraint (subject of the energy emergency concern) to reduce the use of nonconforming fuels through waivers of permits or other regulatory requirements.
- Effectiveness in mitigating the problem.

5.2 Potential Response Stage Actions

The response actions listed are presented sequentially by stages, but actual responses may be undertaken concurrently depending on the emergency.

5.2.1 Stage I: Increased Monitoring

- NYSERDA increases monitoring activities of weekly energy supply, demand, and price data by expanding fuel types and level of detail. This includes data on production, imports, exports, and volumes supplied. As a result, staff may determine advanced indications of an impending petroleum and demand imbalance.
- NYSERDA increases the frequency and the level of detail in selected published reports.
- NYSERDA updates online energy data more frequently.

5.2.2 Stage II: Market Coordination

- NYSERDA formally contacts NYS petroleum industry trade organizations and selected petroleum fuel distribution, pipeline, and terminal companies to alert them to the situation and asks them to encourage their membership to make all effort to coordinate supply activities.
- If necessary, request DOT to grant waivers for drivers' hours of operation regulations to facilitate shipments and movements of petroleum fuels as required.
- Encourage NYS human services agencies to coordinate appropriate State, local, and federal assistance programs to assist low-income, disabled, and elderly persons with their transportation needs due to the shortage.
- If appropriate, request a waiver for the Jones Act from the U.S. DOT. A waiver allows non-U.S. flag tankers to operate between U.S. ports and may enhance fuel supplies.
- Notify the State OEM, which may consider activating a multiagency coordination (MAC) group to address policy issues if the emergency progresses to Stage III or IV.

5.2.3 Stage III: Public Action

- Activities under this phase increase as NYSERDA determines, through ongoing monitoring and discussions with DOE and petroleum supply company representatives, that an energy supply problem is imminent.
- The governor's Office and other concerned State agencies are advised.
- NYSERDA works with the DEC and other NYS agencies to call attention to the supply problem and guide steps or actions to reduce fuel demand and consumption.

- NYSERDA identifies administrative resources that may be needed under an emergency scenario and keeps affected participants, State OEM, and the governor's office apprised of events.
- State OEM may assemble and host MAC meetings with agencies that comprise the DPC. Meetings may be virtual if required.
- State OEM may partially or fully activate the EOC. If a JIC is warranted, ESF #15 (External Affairs) may assist in establishing and maintaining a JIC.
- If fuel demand and consumption reduction efforts alone are insufficient to mitigate the supply constraints, NYSERDA contacts DEC and AGM regarding issuance of waivers for use of nonconforming fuels to prevent escalation of the emergency.

5.2.3.1 Transportation Fuels (Gasoline and Diesel)

- Request a reduction by the consuming public and NYS and local government employees in all nonessential travel.
- Encourage carpooling efforts by the public.
- Encourage the use of mass transportation systems in the State.
- Request the strict enforcement of posted speed limits in the State.
- Request that all nonemergency government, commercial, and industrial facilities operate on a limited-hour basis or for a limited number of days per week.

5.2.3.2 Distillate Fuels for Heating (Heating Oil, Kerosene, and Diesel)

- Request all nonessential commercial, office, government, and industrial operations to reduce consumption while keeping people and property safe.
- Request all heating oil, kerosene, and diesel consumers to voluntarily curtail use.
- Request the residential sector to voluntarily lower heating and hot water temperatures.
- Request all nonemergency government, commercial, and industrial facilities operate on a limited-hour basis or for a limited number of days per week.
- Request all distillate fuel-using private office buildings, schools, and universities reduce thermostat settings for space and domestic hot water heating.
- Request curtailment of deliveries to nonessential users.
- Request fill-ups be limited to 50% of capacity on all residential and other essential deliveries where the intended use is for heating or hot water.
- Request restriction of temperatures in all nonessential buildings of commercial and government users to 65°F during working hours and to facility maintenance levels during nonworking hours.

5.2.3.3 Propane Fuel

- Request all propane consumers to voluntarily curtail propane use.
- Request all nonessential commercial, office, government, and industrial operations to reduce their consumption.

- Request curtailment of deliveries to nonessential users.
- Request fill-ups be limited to 50% of capacity on all residential and other essential deliveries where the intended use is for heating or hot water.
- Request all nonemergency government, commercial, and industrial facilities to operate on a limited-hour basis or for a limited number of days per week.
- Request all propane-using private office buildings, schools, and universities to reduce their thermostat settings for space and domestic hot water heating.
- Request all second homeowners using propane in New York State to reduce their thermostatic settings at these homes to minimum property protection settings.
- Discontinue recreational uses of propane, such as heating swimming pools, saunas, spas, and ornamental fireplaces not used for heat.
- Discontinue filling portable 20-gallon or smaller propane cylinders unless the fuel serves as the primary cooking fuel or has a primary space heating application for a residence.
- Request industries with dual-fuel capability to convert from propane to an alternative fuel.
- Request curtailment of deliveries to nonessential users.
- Request fill-ups be limited to 50% of capacity on all residential and other essential deliveries where the intended use is for heating or hot water.
- Request restriction of temperatures in all nonessential buildings of commercial and government users to 65°F during working hours and to facility maintenance levels during nonworking hours.

5.2.4 Stage IV: Emergency Declaration

- If public health, safety, or the general welfare is believed to be jeopardized by an energy NYSERDA's president.
- Enforcement is based on § 5-119 of the NY Energy Law (and, as appropriate, portions of the NY Public Service Law), which imposes civil and criminal sanctions for violations.
- If NYSERDA's president finds sufficient energy hardships or shortages exist, the standby fuel set-aside program for liquid fossil fuels under the Fuel Set-Aside Act (NY Energy Law Article 10) and 9 NYCRR § 7900 may be activated. Enforcement is based on NY Energy Law § 10-107.

The following actions, or parts thereof, may be recommended in the event of a petroleum fuel supply shortfall:

- Make formal requests for appropriate regulatory waivers to expedite fuel resupply and delivery efforts.
- Minimum motor fuel purchase: Under a Minimum Motor Fuel Purchase Program, assist in the orderly distribution of motor fuel supplies by discouraging customers from topping off their tanks and reducing the length of waiting lines at retail outlets.
- Odd/even purchase: Under the Odd/Even Motor Fuel Purchase Program, assist the equitable and orderly distribution of motor fuel by reducing consumer visits to retail outlets.[59]

- Under the Petroleum Allocation Program, provide equitable distribution of scarce supplies among all classes of end users upon delegation under federal allocation or price control programs during a severe petroleum shortage.
- Impose restrictions on wasteful, inefficient, or nonessential uses of energy or energy resources. This may include ordering restrictions that were merely requested during a Stage III response.
- Waive State and local environmental protection requirements for individual facilities for 30 to 60 days during each 6 months that the emergency is extant.
- Use the U.S. DOE's Northeast Home Heating Oil Reserve, a 1-million-barrel supply of ULSD, for homes and businesses in the Northeastern U.S., a region heavily dependent on heating oil.[60]
- Use NYS Strategic Fuel Reserve located in the downstate and upstate areas.[61]
- Under the Fuel Set-Aside Program, alleviate spot shortages and temporary hardships by allocating in-state supplies of petroleum products that are "set aside" from each prime supplier's available supply.

Implementing some of the actions listed above, such as the fuel set-aside and allocation programs, requires identifying and determining priority energy and fuel supply uses. In such situations, NYSERDA relies on the appropriate NYS agencies to assist in this task. For example, priority medical needs are best determined by the DOH, school needs by the State Education Department, etc. The following section outlines NYSERDA's priority guide for delivered heating and transportation fuels.

5.2.4.1 Priority Guide for Delivered Heating Fuel Customers (Heating Oil, Kerosene, and Propane)

Distillate fuel (a.k.a. heating oil), kerosene, and propane are primary delivered heating fuels in New York State. Approximately 1.4 million residential households in the State use heating oil or kerosene as their primary household heating fuel. In the event of severe shortages, an allocation or curtailment for non-essential delivered heating fuel users may become necessary. Services critical to ensuring the health and general welfare of the public must continue to be provided. The following priority guide may be used to identify essential service customers and inform the priority of delivered heating fuel customers. As with any allocation or curtailment program, changes or exceptions to these priorities may be warranted. NYSERDA works directly with petroleum industry associations to advise the industry on implementing any priority user effort.

<u>Priority 1</u>

- Residential facilities, including homes, assisted-living facilities, hotels, university dormitories, shelters, detention facilities, or any other facility that houses people.[62]
- Medical facilities, including hospitals, urgent care health facilities, medical laboratories, or any similar facility providing medical services to the public.

Priority 2

- Police stations, emergency medical centers, and fire stations.
- Essential government facilities, including public works departments, water and wastewater treatment plants, and military bases.
- Food processing and distribution services, including grocery stores and distribution centers.
- Transportation fuel distribution facilities, including gas stations and convenience stores.
- Communications facilities, including wireless, wireline, broadband, and satellite providers.

Priority 3

- Educational and religious institutions.

Priority 4

- All other users.

5.2.4.2 Priority Guide for Transportation and Backup Power Generation Fuel Customer Users

Gasoline and on-road diesel are the primary transportation fuels in New York State. Diesel fuel also plays a critical role as a primary fuel for backup generators providing electricity to critical services in during a power disruption. In the event of severe shortages, an allocation or curtailment for non-essential transportation and backup power generation fuel users may become necessary. Services critical to ensuring the health and general welfare of the public must continue to be provided. The following priority guide may be used to identify essential service customers and inform the priority of transportation and backup power generation fuel customers. As with any allocation or curtailment program, changes or exceptions to these priorities may be warranted. NYSERDA works directly with petroleum industry associations to advise the industry on implementing any priority user effort.

Priority 1

- Police stations, emergency medical centers, and fire stations.
- Diesel fuel for backup power at essential government facilities, including public works departments, water and wastewater treatment plants, and military bases.
- Diesel fuel for backup power at medical facilities, including hospitals, urgent care facilities, medical laboratories, and any similar facility providing medical services to the public.
- Diesel fuel for backup power at communications facilities, including wireless, wireline, broadband, and satellite providers.
- Snowplows and other emergency response equipment.

Priority 2

- Food processing and distribution services, including grocery stores and distribution centers.
- Transportation fuel distribution locations, such as gas stations and convenience stores, equipped with backup power capabilities.

Priority 3

- Diesel fuel for backup power at educational and religious institutions.

Priority 4

- All other users.

5.3 Coal Emergencies

5.3.1 Lead Agency

NYSERDA is charged with the responsibility for responding to coal supply emergencies. In the event of an in-state coal emergency or an out-of-state event immediately affecting supplies, NYSERDA acts as the lead agency. Support agencies implement their internal emergency response plans as needed, and their activities are coordinated by State OEM.

5.3.2 Potential Response Measures

Now that there is no longer an interdependency between coal and electric generation or any other lifeline critical infrastructure sectors in the State, it is unlikely that a coal supply issue would precipitate an energy emergency.

The State's coal emergency response actions are based on the same four-stage response hierarchy used for petroleum emergencies (see section 5.1.2). If circumstances indicate a coal miner or railroad strike or any other coal supply disruption is likely to affect the energy system in New York State, NYSERDA will monitor developments (e.g., industry-labor negotiations, rail disruptions, barge movements) that could lead to a coal supply disruption or shortage and the four-stage response hierarchy will be implemented.

5.3.2.1 Stages I and II: Increased Monitoring and Market Coordination

During these stages, NYSERDA requests relevant information from all suppliers, distributors, and direct purchasers. Coal producers are contacted for information on production and delivery schedules because they affect the State. Supply and demand data are studied to prepare for allocating or redistributing supplies. Electric generators are surveyed to determine their stockpile levels, estimates of resupply needs, and alternative supply options if any.

5.3.2.2 Stage III: Public Action

If NYSERDA identifies a problem in the supply or distribution of coal, the following actions occur:

- The governor's office and other concerned NYS agencies are advised.
- The media is informed and encouraged to promote appropriate conservation measures to reduce demand, while ensuring that premature public notices do not encourage hoarding.
- NYSERDA works with DEC and other NYS agencies to call attention to the supply problem and guide steps or actions to reduce fuel demand and consumption.
- NYSERDA contacts or convenes a meeting with the major suppliers and large end users of coal, rail companies, and others to agree on procedures to be followed in the event of an emergency.
- Maintain regular contact and consultation with appropriate DOE regional officials.
- If fuel demand and consumption reduction efforts alone are not sufficient to mitigate the supply constraints, NYSERDA contacts DEC to request waivers for the use of nonconforming fuels to prevent escalation of the emergency situation.
- Notify State OEM, which may consider activating a MAC group to address policy issues in the event the emergency progresses to Stage IV.

5.3.2.3 Stage IV: Emergency Declaration

If a coal shortage elevates to the point where emergency measures appear necessary, NYSERDA may recommend that the governor declare an energy emergency, requiring all suppliers, distributors, and direct purchasers to report the following:

- Current stock levels and estimated days of supply.
- Stock in transit, estimated transit time, and estimated days of supply.
- Schedule shipments for the next 30 and 60 days.

NYSERDA then implements emergency measures such as fuel switching and fuel allocation. The agency may direct electric generators to immediately switch coal-fired plants to alternative fuel capability, wherever possible, and to reduce coal-fired generation to a minimum. Coal supplies

from these plants could then be reassigned to coal users without alternative fuel capability. Due consideration is given to the amount of coal needed to protect the utility generating plants and the need to keep certain units operating to maintain electric supply system reliability.

The aim of an allocation program is to ensure adequate volumes of coal (to be determined by NYSERDA on a case-by-case basis) for priority end users. NYSERDA implements the following priority schedule for coal allocation unless circumstances indicate otherwise:

- Medical, psychiatric, educational, and correctional facilities without alternative fuel options.
- Other essential service facilities without alternative fuel options.
- Residential structures without alternative fuel options.
- All others, including electric generation.

By authorization of its president, NYSERDA allocates coal supplies in response to applications for emergency assistance. Such allocations are issued on behalf of end users in the private sector and met by prime suppliers, similar to the liquid fossil fuel set-aside program described in section 5.2. Such allocations are issued on behalf of end users in the private sector and met by prime suppliers, similar to the liquid fossil fuel set-aside program described in section 5.2.

In addition, the following actions may be considered:

- State OEM may assemble and host MAC group meetings with agencies that comprise the DPC. Meetings may be virtual if necessary.
- State OEM may partially or fully activate the State EOC. If a JIC is warranted, ESF #15 (External Affairs) may assist in establishing and maintaining a JIC.

5.4 Electric System Emergencies

5.4.1 Lead Agency

DPS is the staff arm of the PSC, which regulates the State's electrical utilities and is charged by law with the responsibility of ensuring that such utilities provide safe and reliable service. In the event of an in-state electrical emergency, as specified in Table 2, DPS acts as the lead agency, and the DPS Emergency Plan is implemented. Support agencies implement their internal emergency response plans, as needed, and their activities are coordinated by State OEM.

5.4.2 Electric System Threat Assessment

The DPS Emergency Plan calls for different levels of response actions based on the severity of the situation. Table 2 defines the three classes of emergency severity classifications for transmission and distribution emergencies and bulk power supply emergencies. These classifications guide response actions, ensuring that incidents ranging from localized disruptions to catastrophic failures are managed appropriately. The classifications consider factors such as service interruption duration, the percentage of affected customers, and the stability of the bulk power system.

Table 2. Electric Emergency Severity Classifications

Class	Transmission and Distribution Impact	Bulk Power Supply Impact
I Localized Emergency or Receives Media Attention	Any emergency that might receive media attention, including storm anticipation.	Any event or bulk system condition that puts the bulk power system at risk of losing the ability to reliably operate. Includes, but is not limited to, the use of voltage reduction or public appeals by the ISO or any member company in order to restore the bulk system conditions to normal.
II Widespread or Major Incident	Any emergency that results in service interruptions likely to last in excess of 24 hours or affect more than 10% of the customers in a given operating area of any major NYS electric utility.	Any event or bulk system condition that results in the controlled use of load shedding to restore a company's or the NYISO's bulk power system to the normal operating state.
III Catastrophic Event (may include Emergency Declaration)	Any emergency that results in service interruptions likely to last in excess of 72 hours or affect more than 25% of the customers in a given operating area of any major NYS electric utility.	Any event or bulk system condition that results in the uncontrolled loss of load anywhere in the State or that results in partial or full-bulk power system separation of a member system of the ISO from a neighboring pool. Excludes storms that precipitate distribution load loss but includes storms that affect the bulk power system.

Table 3 describes the four categories of emergencies that have been developed to classify electric system emergencies. The different responses to each type of emergency are covered in separate subsections. Where appropriate, different emergency responses may be specified for utility-specific and multiutility emergencies.

Table 3. Electric Energy Emergency Categories

Category	Description
System blackout	Any uncontrolled rapid loss of a large portion of the electric supply system due to equipment failure or disruption. System can be restored using a restoration plan.
Distribution disruption	Loss of power to many customers due to extensive damage to transmission or distribution systems. Due to extensive damage, restoration may take days or weeks.
Supply shortage	Inadequate generation supply or transmission capability reduces the amount of deliverable electricity. Voltage reductions (brownouts), customer appeals, and controlled rolling blackouts may occur.
Fuel constraints	Electric utilities and independent generation owners experience difficulties in securing adequate fuel supply to keep their generating units operating. Fuel conservation or switching may be required, and additional fuel supplies may need to be secured. NYSERDA plays an active role for petroleum and coal supply emergencies. Natural gas, steam, and LNG supply emergencies remain with DPS.

Emergencies that fall into these categories are addressed under the NYISO Emergency Operations Manual or the DPS Emergency Plan. Fuel constraint emergencies involving petroleum and coal may involve action by NYSERDA.[63]

5.4.3 System Blackout

Extreme weather conditions, such as lightning, snow or ice storms, or hurricanes, can cause a major disruption of service very quickly. Faulty equipment can cause a fire that can quickly disrupt service or even cause a blackout. However, many events occur in stages that allow coordinated action steps to be implemented before taking more extreme measures such as voltage reductions, partial load reductions, or rolling brownouts become necessary to prevent a systemwide blackout.

5.4.4 Distribution Disruption

Extreme weather conditions or equipment failure may cause isolated or widespread service outages. Many events occur in stages, such as the loss of one line or substation, multiple lines, or substations, or transformers, resulting in partial or total system outages.

5.4.5 Supply Shortage

Various events may occur, such as extreme weather conditions or equipment failures that may cause the loss of a generating unit or a transmission line or lines. Steps leading up to and including voltage reductions, partial load reductions, or rolling brownouts or blackouts may be necessary to prevent one or more individual utilities or the entire NYS system from experiencing a blackout.

5.4.6 Fuel Constraints

When electric utilities or generators experience difficulty in securing adequate environmentally acceptable petroleum or coal supplies to keep their generating units operating, NYSERDA collaborates with the affected electric generators and fuel suppliers to determine the extent and potential duration of the supply difficulty. Fuel conservation or switching might be required and additional fuel supplies might need to be secured from alternate sources. Short of an emergency declaration, to prevent escalation of the emergency situation, NYSERDA makes recommendations to DEC that necessary waivers be granted to specific generators, allowing the use of nonconforming fuels for a defined period of time. In the event of a declared emergency, NYSERDA directs DEC to issue any necessary waivers.[64]

5.4.7 Potential Response Actions

Emergency response actions for system blackouts, distribution disruptions, and supply shortages activate when information indicates an impending inability to supply load.

- Electric generators, NYISO, transmission owners, local distribution companies, and DPS then determine and implement appropriate response actions, as detailed in their respective emergency response plans. Activities under this phase are likely to increase if DPS determines that loss of power is imminent. DPS constantly reviews and reassesses the situation as long as the threat of emergency persists.
- If an electric system disruption, supply shortage, or blackout threatens public health, safety, or general welfare, the governor may declare an emergency. Emergency response options follow DPS procedures described in the DPS Emergency Plan.

Emergency response actions for fuel constraint emergencies entail the following:

- In response to information indicating an impending fuel supply or air quality issue affecting fuel use, NYSERDA or DPS works with generators or LDCs to evaluate the severity of the problem. The LDCs, generators, and NYSERDA or DPS then make a determination, implementing energy emergency plan responses based on a mutual assessment of the situation.
- If a fuel supply problem endangers public health, safety, or general welfare, the governor may declare an energy emergency.

In an electric system emergency, DPS assesses the type and severity of the emergency outlined in Tables 2 and 3. Based on that assessment, a staged response is implemented as described in sections 5.5.6.1 through 5.5.6.4. The staged response is a guideline not constrained by the severity assessment. Elements of the staged response may be employed to respond to any severity class, as deemed necessary by DPS. The exception to this is an emergency declaration by the governor. An emergency declaration warrants activation of the Severity Class III: Catastrophic Event response detailed in the DPS Emergency Plan.

5.4.7.1 Stage I: Increased Monitoring

- Monitor approaching storms and plan accordingly.
- Monitor utility emergency operations.
- Monitor restoration activities on site if needed.
- Prepare regular status reports.
- Conduct follow-up investigations.

5.4.7.2 Stage II: Market Coordination

- Maintain contact with NYISO.
- Activate Peak-Load Reduction Plan for NYS agencies and affiliates.[65]
- Notify State OEM, which may consider activating a MAC group to address policy issues if the emergency progresses to Stage III or IV.

5.4.7.3 Stage III: Public Action

- DPS Office of Consumer Services provides consumer assistance with resolution of issues where possible.
- Assist in developing NYS response and issue notices for voltage reduction, rolling blackouts, closures, and other necessary measures.
- State OEM may assemble and host MAC group meetings with agencies in the DPC. Meetings may be held virtually if necessary.
- State OEM may partially or fully activate the State EOC. Based on operational needs, any or all ESFs may be activated to support the response.
- If a JIC is warranted, ESF #15 (External Affairs) may assist in establishing and maintaining the JIC.
- DPS staffs the activated Regional Operational Centers.

5.4.7.4 Stage IV: Emergency Declaration

- DPS activates the Class III: Catastrophic Event response as specified in the DPS Emergency Plan.
- DPS assesses duration and estimates of service restoration time.
- State OEM may partially or fully activate the State EOC. Based on operational needs, any, or all of ESFs may be activated to support the response.
- If a JIC is warranted, ESF #15 (External Affairs) may assist in establishing and maintaining it.
- DPS staffs the activated Regional Operational Centers.

5.4.7.5 Agency Coordination

The lead agency—working with the NYISO, electric generators, and LDCs—is responsible for contacting other agencies such as NYSERDA, DPS, DEC, and State OEM when an electric system emergency is declared at any level.

Table 4 identifies the lead agency and other agencies involved for each class of electricity system emergency. The lead agency's public information officer (PIO) is the primary point of contact for press inquiries. Additional information on public communications is presented in section 6 of this plan.

Table 4. Lead and Supporting Agencies for Electricity System Emergencies

Electric System Emergency	Lead Agency	Other Agencies
System blackout	DPS	State OEM, NYSERDA
Distribution disruption	DPS	State OEM, NYSERDA
Supply shortage	DPS	NYSERDA, State OEM
Fuel constraints	NYSERDA (petroleum and coal)	DPS, DEC, State OEM
	DPS (natural gas)	NYSERDA, DEC, State OEM

5.4.7.6 Coordination with New York Independent System Operator and Utility Emergency Procedures

Under NY Public Service Law § 66(21), each NYS electric corporation must file an electric emergency plan (updated annually) with the PSC that addresses storms and other causes of electric system emergencies with storm - like characteristics. Each corporation's plan must contain the following elements (list not inclusive):

- Criteria for classifying the severity of electric emergencies.
- Procedures for practicing the emergency response program.

- Pre-emergency mitigation plans and preparations.
- Identification of management staff responsible for company operations during an emergency.
- Service restoration procedures.[66]
- Procedures for maintaining communications and responding to customer contacts during emergencies.
- Identification of and procedures for maintaining communications with customers that have documented their need for essential electricity for medical needs.
- Identification of and procedures for maintaining communications with customers that provide critical telecommunications, transportation, and fuel distribution services.[67]
- Identification of company staff responsible for communicating with local officials and appropriate regulatory agencies.
- Policy and criteria regarding mutual aid agreements with other utilities.
- Contact lists for operating and emergency staff.

These plans form the foundation for responding to electric system emergencies. The NY Public Service Law requires electric utilities to file their emergency plans with DPS annually by December 15 for review and approval. DPS then certifies to DHSES that each electric utility's emergency response plan is sufficient to provide for the timely and safe restoration of electric services after an event.[68]

5.4.8 Winter Coordination Protocol

DPS, DEC, NYSERDA, and DOT (collectively, the State Agencies), along with NYISO, have established a coordination protocol to be used under circumstances where electric generation unit fuel supply may be at risk, thereby posing risks to electric system reliability.

The Winter Coordination Protocol may be initiated if:

- A generator is low on fuel supply and demonstrates an inability to procure new supplies in a timely manner or the unavailability of fuel to the generator could adversely affect electric system reliability.
- Fuel supply or transportation availability issues are developing, potentially needing State Agencies' action to assist in alleviating the fuel supply availability or transportation issues.
- Weather conditions or forecasts pose risks to fuel availability.
- Actual response actions are subject to change in order to address variable conditions of emergency situations.

Appendix G: State Agency and NYISO Winter Coordination Protocol has additional details on information sharing, fuel exceptions, and exception process, and fuel transportation issues.

5.4.9 Nuclear Power Plant Emergency

A "nuclear power plant emergency" is defined as an event or series of events at a nuclear power plant that results in a licensee declaring one of four emergency classification levels (ECL). The four classification levels are:

1. Unusual event
2. Alert
3. Site area emergency
4. General emergency

Such events can range in severity from events that pose no threat to public safety to an accident or malevolent act at a nuclear power plant that could release radiation to the atmosphere or water resources, including drinking water reservoirs. Such off-site radiation releases could result in large, destabilizing economic, public health, and environmental impacts to NYS communities. In such situations, county officials may identify protective actions that are intended to minimize the risk to the general public. In the event of a nuclear power plant emergency, the New York State Radiological Emergency Preparedness Plan may be implemented. DOH is the lead agency for radiological emergency response.

DPS assesses the impact of losing electric generation from one or more nuclear power plants in New York State as a potential electric system emergency, treating it like any other electric system power supply loss.

5.5 Natural Gas Emergency

A "natural gas supply emergency" is defined as a disruption in the capability of the pipeline transmission system causing a shortfall in the supply of gas needed to maintain safe and adequate service to either to the entire State or a specific geographic area. The two main causes of a gas supply emergency include:

- Ruptures in a major gas transmission or distribution line or a breakdown in transmission line equipment such as compressor stations.
- Gas supply curtailments due to various factors, including inclement weather.

5.5.1 Lead Agency

In the event of an in-state natural gas emergency, DPS acts as the lead agency and implements the DPS Emergency Plan. Support agencies implement their internal emergency response plans, as needed, with State OEM coordinating their activities.

5.5.2 Potential Response Measures

New York State may implement the following actions during an emergency in which available natural gas supplies cannot satisfy demand. Coordination among industry representatives, NGA representatives, and government officials is needed to ensure the effectiveness of these emergency response measures.

These measures may require DPS action at the direction of the PSC, or an emergency order issued by NYSERDA pursuant to a declaration of an energy emergency by the governor. As with petroleum and coal emergencies, the State's response to natural gas emergencies follows the four-stage response hierarchy.

5.5.2.1 Stage I: Increased Monitoring

- Establish and maintain communications with the affected utility or utilities and the NGA.[69]
- Establish and maintain communications with affected customers.
- Gather and report data on utility demand, supply, storage inventories, peaking capabilities, and supplemental supplies during the emergency.
- Provide regular reports to the director of the DPS Office of Electric, Gas and Water, and the chair of the PSC regarding the severity of the situation, remedial activity, and the effectiveness of those actions.

5.5.2.2 Stage II: Market Coordination

- Request each LDC or marketer operating in the State to identify the essential-service customers in its service territory. Essential services include, as specifically determined by each LDC or marketer, minimum gas requirements for the following uses:
    - Residential buildings (houses and apartments), prisons, dormitories, daycare centers, nursing homes, and hospitals.
    - Essential food production, processing, and distribution services for basic human needs.
    - Essential services such as medical, pharmaceutical, police, fire protection, sanitation, communication, water, snowplowing, sanding, and traffic signal maintenance.
    - Manufacturing of products necessary on an immediate, short-term basis to ensure public health and safety.
- Determine the costs of obtaining additional emergency natural gas supply.
- Assist affected utility or utilities and NGA gas supply coordinator(s) when requested in obtaining additional gas supplies during the emergency.
- Notify State OEM, which may convene a virtual MAC group to address policy issues if the emergency progresses to Stage III or IV.

5.5.2.3 Stage III: Public Action

During supply uncertainty or emergencies reducing gas supply, threatening loss, or curtailment of service to non-interruptible customers, NGA implements its standard operating procedures for pooling gas supply. These procedures are divided into two sequential phases:

- Utility-specific actions to balance supply and demand.
- Coordinated actions among all LDCs in the region to correct supply imbalances.

The procedures, which establish specific steps to be followed in an emergency, are implemented on an upstate/downstate basis through gas supply coordinators for each region. The Gas and Water Rates and Supply Section of the DPS Office of Electric, Gas, and Water gathers data and reports on utility demand, supply, storage inventories, peaking capabilities, and supplemental supplies during the emergency. Staff also assist in preparing public appeals to help reduce consumption.

In addition, during a Stage III natural gas emergency the following may occur:

- State OEM considers establishing a larger MAC group to address policy issues if the emergency progresses to Stage IV.
- State OEM considers activating any or all of the ESFs.
- State OEM considers partially activating the State EOC and JIC.

5.5.2.4 Stage IV: Emergency Declaration

Depending on the severity of the shortage and the degree to which essential services are threatened, one or more of the following actions may be taken:

- Curtail service to all large, nonessential commercial and industrial users by an amount sufficient to balance supply and demand.[70]
- Curtail service to all nonessential industrial and commercial users to minimum levels required for plant protection.
- Completely interrupt service to large, nonessential commercial and industrial users.
- DPS Gas and Water Rates and Supply Section staff determine if curtailments instituted by the utilities are proper if they involve:
    - Closing of nonessential businesses.
    - Obtaining exemptions from requirements such as air quality standards and minimum temperature settings.

- DPS assists essential businesses, such as hospitals and food processors, in obtaining exemptions from curtailment to ensure the public welfare.
- DPS maintains contact with DPS Pipeline Safety field staff regarding the status of any needed repairs or proper steps to ensure curtailment compliance.
- State OEM considers fully activating the State EOC and JIC.

NGA plays an advisory role on questions of fuel substitution for emergency situations involving dual-fuel customers and are also asked to provide assessments of the impact government actions have on natural gas users.

Each LDC or marketer operating in the State may be requested to advise essential-service customers in its service territory on actions to be taken during an emergency to minimize gas consumption while continuing to provide essential service.

6 Public Information

6.1 Overview

Communicating accurate and timely information to the media and public is essential to managing an energy emergency. Effective communications help minimize public confusion and anxiety, encourages positive public response to appeals for voluntary conservation efforts, and improves public understanding of possible mandatory measures for dealing with the emergency.[71]

If the State EOC is activated for the energy emergency, State OEM takes the lead role in coordinating and monitoring a statewide public information process to support activities related to actual and potential energy supply emergencies. If the EOC is not activated, NYSERDA or DPS works conjunction with the governor's office to lead communications based on the type of emergency. The NYSERDA Communications Unit handles petroleum and coal emergencies, while the DPS Public Affairs Office manages electric system or natural gas emergencies.

The director of communications (DC) for NYSERDA or DPS works in conjunction with the governor's press office and the PIOs of other involved agencies to disseminate information to the media, including issuing press releases, coordinating briefings, communicating timely and accurate information to the general public, and providing guidelines that encourage emergency energy demand reduction.

The public information process uses a statewide, interagency, multimedia approach to inform the public of the following:

- The current energy situation.
- Appropriate background information.
- Contingency measures to be implemented, including those already in place.
- Special conservation efforts.
- Fuel supply availability.

For petroleum and coal emergencies that do not require EOC activation, NYSERDA will establish an internal Emergency Public Information Coordinating Group that includes communications staff. Working with the governor's office, the coordinating group reviews all public announcements related to the energy emergency. The DC coordinates appropriate approvals by NYSERDA's president and the governor's press office.

For natural gas and electric system emergencies, the DPS DC works directly with directors of the DPS Offices of Resilience and Emergency Preparedness; Electric, Gas, and Water, Consumer Services; and Consumer Policy to coordinate communications. The DC and DPS public affairs staff review all public announcements related to the energy emergency, with final approval to be made by the DC. The DC then coordinates appropriate approvals by the PSC Chair and the governor's press office.

6.2 Establish Joint Information Center

During an energy emergency, the lead agency for communications, NYSERDA or DPS, establishes a JIC to provide a common location for all involved parties to share and disseminate information to the media and the public. These parties may include NYSERDA, State OEM, DPS, DEC, DOH, Empire State Development (ESD), OTDA, and the Department of State's Utility Intervention Unit (UIU). This enhances the coordination, timeliness, and accuracy of information released regarding the energy situation. Under the JIC, all parties work with the DC to coordinate public information during a declared energy emergency. The JIC may be located at the State EOC, if activated, or a virtual JIC may be established using computers, phones, and other technology. If the State EOC is activated, ESF #15 (External Affairs) may assist in establishing and maintaining a JIC.

6.2.1 Information Release

The lead agency prepares press releases in conjunction with the governor's office and issues them after consulting with all involved parties. All NYS agencies are encouraged to provide relevant information about services or assistance for the public for inclusion in releases.

6.2.2 Joint Information Center News Media Briefings

News media briefings are held regularly during an energy emergency to provide accurate and timely information concerning the nature and scope of the emergency, protective or conservation measures, and possible health or other impacts.

Briefings are held as needed, but to the extent possible, are held at regularly scheduled times with written notice given to the media. All parties are properly notified and afforded equal opportunity to participate in the media briefings. Each press release is timed, dated, numbered, and distributed in hard copy or electronically to appropriate sources, such as media, other NYS agencies, and concerned parties.

Supplies for the JIC may include the following:

- Maps, fact sheets, and fuel supply information.
- Copies of the NYS Energy Emergency Plan and current NYS Energy Plan.
- Telephone setup and fax machine.
- Television monitor and audiovisual equipment.
- Computers with internet access.
- Necessary office supplies and equipment.

After deciding to establish the JIC, the lead agency is responsible for setting up and distributing the supplies necessary to operate the center. If the State EOC is activated, ESF #15 (External Affairs) may assist in establishing and maintaining the JIC. Additional resources needed to maintain the JIC can be requested through the State EOC via New York Responds (NYR) by ESF #12 (Energy) (if activated) or directly from the lead agency.

6.3 Coordinated Information Release

During a shortage, coordination with a specific energy industry through energy distributors may be necessary to distribute guidelines, pamphlets, and bulletins to prevent product shortages or alleviate problems by providing valuable information to energy users.

The lead agency may contact individual chief executive officers (CEOs) of energy suppliers to request their assistance and ask them to designate a contact person for the lead agency's DC. This contact could be, for example, the manager of government relations, marketing, or public information.

Materials from this joint effort could include lists of mandatory or voluntary conservation measures, telephone numbers, and contact details for special assistance and advice on dealing with potential or actual energy emergencies. The lead communications agency provides camera-ready materials for companies to print and distribute through local dealers or retail outlets.

6.4 Emergency Alert System

As identified in the NYS Public Warning Annex, Executive Order 13407 (Public Alert and Warning System) created the Integrated Public Alert and Warning System (IPAWS) in 2006. IPAWS is an internet-based gateway to alert the public via the following:

- Emergency Alert System (EAS).
- Wireless Emergency Alerts (WEA).
- National Oceanic and Atmospheric Administration (NOAA) Weather Radio network.

IPAWS is a key public warning distribution system to issue an EAS alert, WEA, or NOAA radio alerts. IPAWS sends messages directly to individual radio and television broadcast stations, multichannel video distributors, and wireless operators via the internet.

In New York State, State agencies, local governments, hospitals, and schools also use a statewide mass notification system called NY-Alert. With approximately 5 million subscribers, NY-Alert distributes public warnings such as America's Missing: Broadcast Emergency Response (AMBER) Alerts, sex offender alerts, weather warnings, and evacuation notifications. NY-Alert also sends public information, such as traffic alerts and warnings. NY-Alert disseminates messages through emails, text messages, phone calls, and faxes. Subscribers opt into NY-Alert and may customize the alerts they receive based on the type of information and geographic location.

6.5 Energy Hotline, Public Inquiry, and Media Monitoring

In an energy emergency, the lead agency may activate a toll-free energy hotline, establish hours, and provide staff and telephone lines to respond to public inquiries. The hotline receives information from EAS messages, press releases, and briefings provided by a designated JIC representative. Regular briefings are held to keep hotline staff prepared to respond to inquiries. The energy hotline serves as a primary source of information to the general public. The hotline supervisor monitors broadcast and print media news reports.

The lead agency compiles and circulates a daily news clipping package. It brings reports of inaccurate information to the attention of the lead agency's DC or appropriate JIC representative. The lead agency corrects the information at press briefings, through press releases, on the hotline, or by directly contacting the station or publication.

7 Recovery Phase

The recovery phase begins when:

1. The emergency is under control.
2. Response activities have ended.
3. Protective response actions have been relaxed.

During the recovery phase of an emergency, the lead State agency will:

- Review recovery actions and develop strategies for addressing ongoing local and State energy needs.
- Continue to monitor local, State, and energy industry actions.
- Receive and assess aid requests from local, State, and federal agencies, energy suppliers, and distributors.
- Work with State OEM and other State and local emergency organizations to establish priorities for repairing damaged energy systems.
- Update State and local news organizations with assessments of energy supply, demand, and requirements for repairing or restoring energy systems.
- Keep accurate records of emergency responses.
- Draft recommendations and other reports as appropriate.
- Assess any environmental impacts from emergency response efforts and develop remedial strategies for restoring resources to the pre-emergency condition.

After any declared energy emergency requiring implementation of the Energy Emergency Plan, the lead agency prepares a post emergency assessment report. The report identifies the strengths of the Energy Emergency Plan's response elements, highlights opportunities for more effective response, and improved coordination with other response agencies. The assessment reviews the causes of the emergency, private sector reactions, and the effectiveness of response strategies to the specific emergency. It provides recommendations for future emergency response activities where appropriate. Special attention is paid to the effectiveness of mitigation efforts in reducing health and welfare threats, energy consumption, and public response to such actions.

Appendix A. Definitions and Acronyms

The Department of Energy's (DOE's) Energy Information Administration (EIA) provides a comprehensive glossary of energy terms and definitions. It also has extensive energy-related information on its website, http://www.eia.doe.gov

Definitions for many terms, acronyms, and abbreviations in the New York State Energy Emergency Plan follow.

Agency	Includes NYS departments, local governments, agencies, boards, public benefit corporations, public authorities, and commissions.
Allocation	Apportionment of fuel based on purchases and consumption amounts for stated periods.
API	Stands for American Petroleum Institute, a petroleum industry trade association.
Assignment order	Represents an emergency fuel allocation issued by New York State Energy Research and Development Authority (NYSERDA).
Aviation fuels	Refers to petroleum-based fuels designed for use in aircraft, including fuels designed to operate aircraft combustion engines and refined petroleum turbine engines.
Bbl	Stands for barrel, a unit of measurement equivalent to 42 gallons.
Branded product	Identifies the registered name of a prime supplier's petroleum fuel.
Bulk plant	Consists of one or more storage tanks owned or leased by wholesale distributors or prime suppliers to store and redistribute products to end users.
Coal	Includes solid fuels such as bituminous (soft coal), anthracite (hard coal), metallurgical coal, and lignite.
Customer of record	Refers to a purchaser who, at least 15 days before the governor declares an emergency, has entered into an oral or written contract with a supplier specifying product volume requirements, delivery method, and payment and credit terms.
Dealer	Resells product through retail sales outlets under consignment, lease, commission, and proprietorship terms.
Degree day	Measures how much the outside temperature falls above (cooling) or below (heating) 65 degrees Fahrenheit (°F) daily. Each degree above (cooling) or below (heating) 65°F on a given day counts as one degree-day. Fuel oil dealers use this measurement for customers subscribing to automatic delivery services.

Diesel fuel	A fuel composed of distillates obtained in petroleum refining operation or blends of such distillates with residual oil used in motor vehicles. The boiling point and specific gravity are higher for diesel fuels than for gasoline.
DOE	Stands for the U.S. Department of Energy.
Distributor	One who purchases the major portion of their requirements from a major oil company and is authorized to use its trademark (branded) or an independent business who buys product from one or more suppliers and uses its own trademark (unbranded).
End user	Represents consumers of allocated products, including wholesale purchasers and consumers.
Energy emergency	An imbalance between fuel supply and demand sufficient to result in a general threat to the health and welfare of the State's residents.
Energy source	Includes substances such as petroleum, natural gas, and coal that supply heat, power, electricity, and renewable energy.
Essential services	Includes judicial proceedings, law enforcement, fire protection, emergency medical service, snow and ice removal, telecommunications, sanitation, and water services, and other necessary public services.
Fuel oil	Describes petroleum distillate product burned for the generation of heat and the generation of power.
Hardship/emergency	Refers to unforeseen circumstances requiring prompt action to prevent suffering or privation.
Hopper car	Describes a railway car that transports and delivers coal, with a capacity of up to 100 tons.
LNG	Stands for liquefied natural gas, which is cooled to approximately minus 160 degrees Celsius (ºC) for storage or shipment as a liquid under high pressure in cryogenic containers.
LPG	Stands for liquefied petroleum gas, a substance which remains gaseous under normal atmospheric conditions but can be liquefied under moderate pressure at normal temperatures. Propane and butane are the principal examples commonly known as bottled gas, tank gas, and LPG.
MAC group	Refers to the multiagency coordination group.
Middle distillates	Include refined products such as kerosene, home heating oil, range oil, stove oil, and diesel fuel, which fall in the middle of the crude oil distillation range.
Motor fuels	Encompasses fossil fuels, including gasoline, diesel fuel, and propane, used to power internal combustion engines.
Motor gasoline	Represents a refined petroleum product suitable for use as a fuel in internal combustion engines.

Octane rating	Measures gasoline's antiknock qualities, determined by averaging the research and the motor octane numbers. A higher rating indicates greater antiknock qualities.
Peak shaving	Refers to the use of supplemental natural gas supplies (e.g., LNG, propane-air mixtures) for distribution by gas utilities to supplement the normal supply of pipeline gas during periods of extremely high demand of relatively short duration.
Petroleum products	Includes refined or re-refined petroleum products derived from synthetic oil, crude oil, or oil extracted from other sources.
Pipeline	Transports petroleum products via interstate, intrastate, or intracompany pipelines.
Pipeline terminal	Represents the entity (gas processing plant, refiner, importer, mining company, or reseller) that first sells product, subject to set-aside or allocation control, into the State distribution system for end use in the State.
Priority consumer	Refers to any end user ranked for allocation purposes based on essential service performed, consumption requirements, or availability of alternate fuel capability.
Propane	A hydrocarbon fuel that remains gaseous at ordinary atmospheric temperatures and readily converts to a liquid state, commonly known as bottled gas.
Residual fuel oil	Describes heavier, high-viscosity fuel oil (Nos. 4, 5, and 6 fuel oil; Bunker C), which usually requires heating before pumping and handling. Industry, large commercial buildings, and electric generation primarily use this fuel.
Retail sales outlet	Refers to a location where a supplier conducts an ongoing business, selling allocated products directly to end users or wholesale purchaser-consumers.
State set-aside	Allocates a portion of a prime supplier's total supply for the State to resolve emergencies and hardships caused by fuel shortages during a declared energy emergency.
Steam	Represents water heated to vapor/gas form and delivered as an energy source for sanitizing, heating/cooling, cooking, or local power generation.
SEOC	Stands for State Emergency Operations Center.
Surplus	Refers to an allocated product with no purchase restrictions.
Tanker terminal	Serves as a marine facility for receiving and loading oceangoing tankers and barges.
Unbranded wholesale	Refers to an independent marketer selling unbranded petroleum products.

Purchaser-consumer	Represents any person who is the final consumer, who as part of normal business practices, purchases or obtains an allocated product from a supplier and receives delivery of that product into a storage structure substantially under their control at a fixed location. Also referred to as “direct purchaser” or “end user.”
Wholesaler	Refers to a Purchaser-Reseller who is any person or entity that purchases, receives through transfer, or otherwise obtains (including through consignment) an allocated product and resells or otherwise transfers it to other purchasers without substantially changing its form or content.

Appendix B. Potential State Waivers to Request During an Incident

The oil and natural gas industry operates under myriad regulations to ensure safe operations, environmental quality, and fair market competition.[72] The industry has a deep commitment to complying with all regulations, all the time, regardless of external conditions. However, during the response to an event affecting system integrity, some regulations can impede the quick restoration of services when access to specific resources is limited, or workers and equipment are needed from other areas. Governments understand this paradox and the value of quickly restoring critical services when events affect their communities. Waivers, the temporary suspension of regulations by the government to help companies continue operations, solve this problem by alleviating the emergency and restoring normal operating conditions**.** The following section identifies many statutes, related issues, and waivers that can be requested during an event to speed recovery and a return to compliance.

The following information details State rules and requirements needed to transport fuel interstate and ensure the most efficient functionality of the fuel distribution system possible during a state of emergency (e.*g.*, hurricane, blizzard). The checklist is organized by administrative department or agency, listing all necessary regulatory waivers within the department or agency's jurisdictional authority**.**

B.1 Reid Vapor Pressure (RVP) Requirements

Issue: Many states allow a variance of up to a 1-pound Reid Vapor Pressure (RVP) from the most recent version of the American Society of Testing Materials (ASTM) D4814 for gasoline blended with ethanol**.** The National Institute of Standards and Technology (NIST) Handbook 130 also provides for this variance. The New York State Department of Environmental Conservation (DEC) regulation (6NYCRR 225-3) limits gasoline volatility to 9.0 pounds per square inch (psi) RVP from May 1 through September 15. U.S. Environmental Protection Agency (EPA) regulations (40 CFR 1090.215) limits gasoline volatility to 7.4 psi RVP in reformulated gasoline areas and 9.0 psi RVP in conventional gasoline areas during the same summer period. Reformulated gasoline is required from Dutchess and Orange counties south and east in New York State.

Waiver Needed: States that do not allow for an RVP variance may waive the applicable State law or regulation to allow fuel from states that allow the variance to be used interchangeably across state lines during the emergency. The most common emergency response is to allow the sale of winter blends

(higher RVP) during portions of the summer season. This requires an EPA waiver of federal RVP limits as well as DEC exercising enforcement discretion regarding State RVP limits.

Agencies: EPA, DEC, Department of Agriculture and Markets (AGM)

B.1.1 Biofuel Blending Requirements

Issue: Some states require a minimum amount of biofuels to be blended into all gasoline and/or diesel sold in that state. The only biofuel blending mandate in New York State is the biodiesel requirement of the Environmental Conservation Law § 19.0327 for heating oil.

Waiver Needed: States with minimum biofuel blending requirements may waive the applicable law or regulation to allow fuel that does not contain the specified volume of biofuels to be carried across state lines and sold in the State during the emergency. The biodiesel blending requirement may be suspended by an executive order from the governor.

Agencies: EPA, DEC

B.1.2 Trucking Weight Limits

Issue: All states set weight restrictions (maximum weights allowable) for trucks that travel on their roadways**.** Because federal law allows each state to set its weight constraints, they vary**.** Additionally, these specific weight limits typically require fuel tankers to be filled at levels below their capacity in most, if not all, states.

Waiver Needed: States may waive their typical weight limits and set temporary limits for trucks carrying emergency relief supplies (including fuel) to allow rapid movement of the largest amount of fuel that can be moved safely intrastate and across state lines**.** A typical waiver may allow trucks from 92,000 pounds to 100,000 pounds.

Agencies: U.S. DOT, DOT

B.1.3 Distributor License

Issue: Many states require a carrier to pay a fee and obtain a distributor's license to transport motor fuel within that state.

Waiver Needed: States may waive fees and license requirements to ensure that all drivers, trucks, and resources—whether in-state or brought across state lines to provide support—are available to contribute to the disaster relief effort.

Agencies: Department of State (DOS), NYS Department of Taxation and Finance

B.1.4 Retail Gasoline Label Requirements

Issue: States with specific biofuel blending requirements may require labels such as "contains 10% ethanol," while fuel transported interstate may not have exactly 10%, but rather "up to 10% ethanol."

Waiver Needed: States with content-specific labeling requirements may waive these requirements to allow fuels that may not be blended with the exact volume depicted on the dispenser to be sold in the state during the emergency.

Agencies: AGM

B.2 New York City

B.2.1 Sulfur Content of Heating Oil

Issue: New York City regulations specify a low-sulfur content requirement for heating oil. Heating oil meeting this requirement may be in short supply.

Waiver Needed: The New York City Department of Environmental Protection (DEP) may temporarily suspend the low-sulfur requirement for No. 4 fuel oil outlined in New York City Administrative Code § 24-169(b)(2).

Agency: DEP

B.2.2 Boiler Inspections

Issue: Annual inspections are required for low- and high-pressure boilers as per New York City Construction Code § 28-303.2 (2008). The owner of each boiler must file an annual written statement, including (1) the location of the boiler and (2) whether the owner, agent, or lessee has had the boiler inspected by a qualified boiler inspector, the name and address of the insurance company or other qualified inspector, the date of the inspection, and the policy number covering the boiler. New York City Construction Code § 28-303.6 (2008).

Waiver Needed: The due date for this requirement and the subsequent required reporting may be extended by requesting a NYC Annual Boiler Inspection Extension.

Agencies: DEP

B.2.3 Emergency Boiler Repair Permits

Issue: The DEP boiler work permit process can delay emergency boiler repairs.

Waiver Needed: DEP has streamlined emergency boiler work permit guidelines that allow temporary work permits to repair or replace damaged boilers to be issued by providing DEP with basic information about the work being completed, the type of boiler being installed, and information about the licensed installer or plumber. The new emergency boiler work permit guidelines allow work to begin immediately and cut the application process by as much as two weeks.

Agencies: DEP

B.2.4 Tanker Truck Permits

Issue: The number of fuel trucks with permits to load and unload fuel in New York City may need to be supplemented by the Fire Department of New York (FDNY).

Waiver Needed: A Fire Department of New York Tank Truck Modification will allow motor vehicles that, pursuant to federal and State laws and regulations, may lawfully operate as a cargo tank truck for transportation of flammable or combustible liquid motor fuel to operate in New York City without a Liquid Motor Fuel Permit for loading and unloading such fuel.

Agency: FDNY

Appendix C. Potential Federal Waivers to Request During an Incident

The following list includes all federal regulatory waivers needed to ensure the most efficient functionality of the fuel distribution system possible during a state of emergency (e*.g.,* hurricane or blizzard)**.** The list is organized by the administrative department or agency, listing all necessary regulatory waivers in the jurisdictional authority of the department or agency**.**[73]

C.1 Environmental Protection

C.1.1 Reformulated Gasoline Requirements

Issue: Reformulated gasoline (RFG), a cleaner burning gasoline blend, is required in areas not meeting certain air quality standards**.** During times of emergency, distributors must remain flexible in transporting any available fuel into the affected area in any way possible, regardless of whether or not it is RFG.

Waiver Needed: Using conventional summer gasoline—9.0 pounds per square inch Reid Vapor Pressure (psi RVP) standard—in reformulated gasoline areas between May 1 and September 15 requires a waiver from EPA.[74]

Agencies: EPA, DEC

C.1.2 Fuel Composition and Use: Sulfur Limitations

Issue: The DEC specifies sulfur content in residual and distillate fuels by region. If a specified fuel is unavailable and an electric generator is required for reliability (as determined by NYISO), an exception would need to be obtained from the DEC.

Exception Needed: A 6 NYCRR § 225-1.3 exception allows the use of a higher sulfur fuel oil for a period not longer than 45 days, or more than 45 days but less than a year upon the holding of a public hearing and is requested by the affected generation owner or fuel distributor. NYSERDA must certify that an insufficient fuel supply exists before a sulfur-in-fuel exception may be granted.

Such an exemption may be preempted under the NY Energy Law § 117 if the governor declares that a fuel supply emergency exists or is impending. A protocol and contact list agreed to by and involving DEC, DOT, NYSERDA, DPS, and NYISO has been implemented to facilitate the exception request and approval process.

Agencies: DEC

C.1.3 Ultra-Low Sulfur Diesel Requirements

Issue: Ultra-low sulfur diesel (ULSD) is a cleaner fuel with a 15-parts-per-million (ppm) sulfur specification, required by the EPA for vehicles and equipment**.** During emergencies, distributors may need the flexibility to get any available fuel into the affected area in any way possible, regardless of the sulfur content. However, future ULSD waivers are highly unlikely. Many engines and boilers are damaged by operation on high-sulfur distillate, and according to EIA, over 94% of 2020 national[75] and 100% of New York State[76] No. 2 distillate sales were ULSD. In terms of the available pool of distillate, according to EIA, in 2020, in the Central Atlantic region (including New York State), 89% of total distillate stocks were comprised of ULSD.[77]

Waiver Needed: 40 C.F.R. § 1090.305 sets ULSD standards**.** Enforcement discretion from DEC regarding 6NYCRR 225-4 is needed for highway diesel. This waiver allows the use of high-sulfur heating oil in model year 2006 and older vehicles, generators, and home heating oil during an emergency.

Agencies: EPA, DEC

C.1.4 Vapor Recovery Regulations

Issue: Fuel terminal loading systems, unloading systems, and tank trucks that transport fuels are required to use specified vapor recovery equipment, which varies by state**.** In an emergency, it is imperative that fuel can get from jurisdiction to jurisdiction by any transport means available**.** The states include these regulations in their state implementation plans (SIPs), which are approved and enforced by the EPA.

Waiver Needed: 40 C.F.R. Part 60 Subpart XX and Part 63 Subparts R, Y and BBBBBB, which set the standards for loading applicable to bulk gasoline terminals, pipeline breakout stations, and marine tank vessel loading operations, respectively.

Agencies: EPA, DEC

C.1.5 Tank Roof Landing Emissions

Issue: During an emergency, when more fuel may be needed to pass through a facility's tanks faster than normal operations, the emptying and filling of tanks may result in higher air emissions due to the tank roof landing emissions in floating roof tanks**.**

Waiver Required: Air emission regulations are enforceable by EPA, and air emissions for specific facilities are limited by their air permits**.** If EPA grants a waiver (or a no-action assurance) during an emergency, states may also waive the permit limits for an appropriate time during and after the emergency**.**

Agencies: EPA, DEC

C.2 Department of Transportation

C.2.1 General Administrative Requirements

Issue: The U.S. DOT's Federal Motor Carrier Safety Administration (FMCSA) sets general standards and requirements for vehicle labeling, record keeping, and so forth**.** They also require transporters to follow all applicable State and federal requirements**.** Waiving this section could expedite fuel shipments to recovery areas and allow for other federal and state waivers to be effective.

Waiver Needed: 49 C.F.R. § 390 provides the general basis for federal motor carrier safety regulations.

Agencies: U.S. DOT, DOT

C.2.2 Pipeline Operator Qualification Training

Issue: The U.S. DOT Pipeline and Hazardous Materials Safety Administration (PHMSA) sets requirements on operator qualification training for certain hazardous liquid and gas pipeline transportation functions or covered tasks (such as the manual closure of valves) that meet the components of a four-part test, commonly referred to as Operator Qualification. Due to the diversity of hazardous liquid and gas pipeline infrastructure across the nation, operators train to satisfy the requirements as they apply specifically to their company's equipment and infrastructure.

These requirements, which may be appropriate under regular operating circumstances, hinder the effort for mutual aid from other hazardous liquid and gas pipeline companies in time-sensitive circumstances.

Waiver Needed: 49 C.F.R. Parts 192 and 195, subpart N lists the requirements of operator qualification, including covered tasks and four-part test in § 192.801(b) and § 195.505.

Agencies: U.S. DOT, DPS

C.2.3 Driver Qualification Regulations

Issue: The U.S. DOT's Federal Motor Carrier Safety Administration (FMCSA) has certain rules requiring a driver's physical fitness, fluency in the English language, and permissible level of fatigue. The FMSCA rules require the thorough inspection of cargo to ensure lighting and cargo standards are met and inspection repair and maintenance requirements—which may be appropriate under regular operating circumstances—do not hinder the effort to get as many loads into the disaster area as possible in a short amount of time.

Waiver Needed: 49 C.F.R. Parts 391-3 and 396, which set driver standards, load standards, inspection standards, repair standards, and maintenance standards.[78]

Agencies: U.S. DOT, DOT

C.2.4 Hours of Service Regulations

Issue: The U.S. DOT's FMCSA sets requirements on how many hours a truck driver can drive or be on duty in a given day and week, including rest time requirements between on-duty periods**.** These requirements, which may be appropriate under regular operating circumstances, hinder the effort to get as many loads into the disaster area as possible quickly.

Waiver Needed: 49 C.F.R. Part 395 Subpart A, which sets hours of service regulations.

Agencies: U.S. DOT, DOT

C.2.5 Vehicles Not Meeting HazMat Specifications

Issue: The U.S. DOT's PHMSA sets strict specifications on which vehicles can carry gasoline and other hazardous materials and how to do it (i.e., shipping papers, markings, placarding). To get the needed quantities of fuel into the disaster area as quickly as possible, more vehicles that are fit to carry gasoline and diesel fuel are needed, even if they do not meet the strict specifications.

Waivers Needed: 49 C.F.R. Parts 173.242 and 172 Subparts C, D, F, and I, which govern vehicle specifications and other shipping standards for tank trucks**.** These waivers will also affect 49 C.F.R. Parts 106, 107, and 171-180.

Agencies: U.S. DOT, DOT

C.2.6 Jones Act

Issue: The U.S. DOT's Federal Maritime Administration (FMA) has the authority to waive the Merchant Marine Act (Jones Act), which requires that only U.S.-built and -flagged vessels carry goods from U.S. ports to other U.S. ports**.** During times of emergency, it is imperative that disaster relief items, including fuel, reach the disaster area as quickly as possible, regardless of country of origin. More eligible vessels mean that more disaster relief supplies arrive promptly.

Waiver Needed: 46 U.S.C.S. 551, which codifies the restriction on non-U.S.–flagged vessels delivering from U.S. ports to U.S. ports.

Agencies: U.S. DOT, DOE

C.2.7 Foreign Oil Spill Response Vessels

Issue: The U.S. DOT's FMA entered into a Memorandum of Agreement (MOU) with the U.S. Coast Guard, the EPA, and the State Department to expedite requests for exemptions for foreign oil spill response vessels (e.g., oil skimmers).

Waiver Needed: 46 U.S.C.S. § 55113. This MOU essentially memorializes the process these agencies created and ensures continued expedited allowances for foreign oil spill response vessels in the future.

Agencies: U.S. DOT

C.2.8 Anchor Handling Waiver Program

Issue: Similar to the Launch Barge Program, the U.S. DOT's FMA is authorized to make determinations under 46 U.S.C. § 501 allowing the use of foreign anchor handling vessels (used to position mobile offshore drilling units) provided that no U.S.-flagged vessels are available, and the companies that want to use foreign vessels have contracts in place to bring in replacement U.S.-flagged vessels.

Waiver Needed: 46 U.S.C. § 501 allowing the use of foreign anchor handling vessels (used to position mobile offshore drilling units) if no U.S.-flagged vessels are available.

Agencies: U.S. DOT

C.3 Internal Revenue Service

C.3.1 Diesel Fuel Penalty

Issue: The U.S. Internal Revenue Service (IRS) imposes a 24.4 cents per gallon tax on diesel fuel sold for on-road use, while dyed diesel fuel used for non-transportation purposes (e.g., farming, home heating) is not ordinarily subject to the tax**.** Typically, if a diesel fuel exempt from this excise tax were converted to use for on-road purposes, the IRS requires that use be reported and the tax paid accordingly**.** In an emergency, the goal is to get as much transportation fuel into the market as possible to address supply shortages. As such, this reporting and tax requirement impedes bringing fuel into the transportation mix.

Waiver Needed: Internal Revenue Code Publication 510, which governs excise taxes.[79]

Agencies: IRS, NYS Department of Taxation and Finance

C.4 Other Federal Government Assistance Options

C.4.1 Vessel Movement Control

The U.S. Coast Guard has the authority to control vessel traffic in areas subject to the jurisdiction of the U.S. determined to be hazardous or under other hazardous circumstances through the enactment of safety and security zones**.** Coordination efforts with the U.S. Coast Guard and the U.S. Department of Homeland Security (DHS) are made to expedite barge movement and to provide exclusive access to ports in the disaster area to those bringing fuel and other necessary supplies to expedite barge movement.

Waiver Needed: Captain of the Port Order waiver under Ports and Waterways Safety Act (33 U.S.C.S. § 1221 *et seq*.).

Agencies: U.S. Coast Guard, Port Authority of New York and New Jersey

C.4.2 Fuel Loans from the Department of Energy

Fuel loans and distribution assistance from the U.S. Department of Defense's (DOD's) Defense Logistics Agency (DLA) and DHS's Federal Emergency Management Administration (FEMA).

Agencies: DOD, FEMA, DOE

Appendix D. Superstorm Sandy: Energy-Related Executive and Agency Actions to Aid Recovery

The following executive orders and waivers were issued in response to Superstorm Sandy. The list is separated according to the type of action at the State and federal level.

D.1 New York State Transportation Actions

- **Executive Order (EO) No. 47, issued October 26, 2012**
  By this EO, the governor declared a State Disaster Emergency in all 62 NYS counties. This EO also authorized all New York State (NYS) agencies to take appropriate action to protect State property and assist local governments and individuals in responding to and recovering from the disaster. Additionally, the declaration satisfied the requirements of 49 C.F.R. § 390.23(a)(1)(A), which provides temporary emergency relief from Parts 390 through 399 of the Federal Motor Carrier Safety Regulations (FMCSR; i.e., relating to hours of service of drivers, inspection, repairs, and maintenance) to expedite the movement of power-restoration crews.[80]
- **EO No. 49, issued October 31, 2012**
  Suspended Vehicle and Traffic Law §§ 375, 385, and 401 to exempt vehicles registered in other states that enter New York State from the registration, equipment, and dimension requirements to facilitate their ability to assist in disaster preparedness and recovery efforts.[81]
- **EO No. 54, issued November 1, 2012**
  Suspended Tax Law §§ 282, 283, and 302, suspending distributor registration requirements for those importing motor fuel (gasoline) and diesel motor fuel into the State. The EO also suspended Tax Law § 283-a, eliminating the requirement to register as an importing or exporting transporter. The EO also suspended Tax Law §§ 285, 285-a, and 285-b, ensuring that fuel taxes were not payable by persons receiving motor fuel or diesel motor fuel from a person not required to register as a distributor due to this EO. The EO also suspended Tax Law §§ 286, 286-a, and 286-b, eliminating record requirements for motor fuel and diesel motor fuel transported into or out of New York State by a person not required to register as a distributor or transporter under this EO. Finally, the EO suspended Tax Law § 1134, eliminating the requirement for a certificate of authority for a person not required to register as a distributor because of this EO.[82]
- **NYS DOT Waiver, issued October 26, 2012**
  Suspended the hours-of-service rules in 17 NYCRR § 820.6 for drivers transporting propane and fuel oil for heating purposes and transporting heating fuels from terminal locations to heating fuel delivery companies within the State.

- **DOT Waiver, issued December 3, 2012**
  With the large number of vehicles damaged by the storm surge, removing them all to clear the roads was difficult. This waiver suspended the hours-of-service rules in 17 NYCRR § 820.6 for drivers and motor carriers engaged in the intrastate transportation of disabled motor vehicles by tow truck operators in counties affected by the storm (Suffolk, Nassau, Queens, Kings, New York, Richmond, Bronx, Westchester, and Rockland) from November 27, 2012, through January 2, 2013.
- **New York State Thruway Authority (NYSTA) Toll Waiver, issued November 7, 2012**
  To facilitate a prompt response to the needs of Superstorm Sandy victims, the NYSTA issued a memorandum to all toll staff detailing procedures for toll-free travel for approved emergency response vehicles, including DOT vehicles with authorized letters, Red Cross vehicles with proper identification, and fuel delivery vehicles. Additionally, drivers claiming exemptions due to Sandy response efforts, such as those from outside agencies, relief organizations, utilities, and debris removal companies, were also considered eligible. This measure aimed to ensure efficient access for those aiding in disaster recovery.
- **Governor's Press Release announcing suspension of tolls on Rockaways Bridges Tolls, issued November 4, 2012**
  Damage to the bridge that carries the A Train to the Rockaways forced many people to drive over the two toll bridges that connect the Rockaway peninsula to the mainland. The governor announced that the Metropolitan Transit Authority (MTA) would suspend the tolls for all cars on the two bridges, retroactive to when the bridges reopened.[83]
- **Long Island Railroad (LIRR) Waiver to New York and Atlantic Railway**
  After the storm, the LIRR restored limited freight service east of Jamaica Station within 48 hours of the storm's subsidence. To expedite the transportation of propane, food, and building materials, the LIRR granted the New York and Atlantic Railway a waiver allowing heavier rail cars on LIRR tracks.

D.2 Federal Transportation Actions

- **Federal Motor Carrier Safety Administration (FMCSA) Interstate Petroleum Transport Team**
  The FMSCA led an Interstate Petroleum Transport Team to facilitate the efficient movement of fuel to the region devastated by Hurricane Sandy. The team served as a central point of contact for states, the trucking industry, and agencies assisting in removing barriers to the quick delivery of fuel. The team coordinated information on a variety of waivers to help the flow of petroleum products to affected states, including driver hours-of-service, oversize and overweight regulations, low-sulfur diesel waivers toll waivers, vehicle registration waivers (International Registration Plan, or IRP), and fuel tax waivers (International Fuel Tax Authority, or IFTA).

D.3 New York State Environmental and Fuel Quality Actions

- **EO No. 59, issued November 3, 2012**
  Suspended (AGM). the vapor pressure, distillation class, and vapor lock protections under 1 NYCRR Part 224.3, enforceable by the NYS Department of Agriculture and Markets This EO also suspended Environmental Conservation Law § 19-0325, relating to limits on the sulfur content of heating oil sold in New York State.
- **Department of Environmental Conservation (DEC) Title V Permit Enforcement Discretion**
  Allowed marine terminals to increase throughput and continue distribution with compromised pollution controls. The DEC exercised its enforcement discretion for any exceedances or noncompliance with operating parameters contained in the facility's Title V permits required under 6 NYCRR Part 201, 225, and 227.
- **DEC Propane Tanks Guidance**
  Regulates all stationary tanks at a facility which is otherwise required to be registered for petroleum bulk storage (PBS) purposes and issued guidance for temporary use after the storm.

D.4 Federal Environmental Actions

- **U.S. Environmental Protection Agency (EPA) Reformulated Gasoline (RFG) Waiver, issued October 31, 2012**
  The EPA issued a multistate waiver of the RFG requirements under the Clean Air Act (CAA) October 31, 2012, to minimize gasoline supply disruptions in New York and other states.[84]
- **Vapor Capture Units Waiver, issued November 2, 2012**
  The EPA issued a no-action assurance letter to New York State and New Jersey, which was extended, allowing certain terminals to load and unload fuel at bulk gasoline and marine loading terminals without operating vapor recovery or combustion devices, provided the terminal operators notified the EPA and adhered to other conditions. Only those terminal operations with damaged or inoperable vapor recovery or combustion devices or not equipped with otherwise required vapor recovery or combustion devices, may take action per the terms of the letter. The DEC issued a similar waiver under NYS law.
- **ULSD Fuel Waiver, issued November 2, 2012**
  The EPA granted another waiver to New Jersey and Pennsylvania, permitting the sale, distribution, and use of diesel fuel exceeding the standard sulfur-in-fuel content limit within the five boroughs of New York City, as well as Nassau, Suffolk, Rockland, and Westchester counties in New York State. The waiver aimed to minimize disruptions to the diesel fuel supply needed for emergency response diesel-powered highway and off-road vehicles and non-road equipment in these areas. The DEC issued a letter identifying the categories of diesel-powered highway and non-road vehicles and non-road equipment that qualified for the EPA's waiver of sulfur content requirements.

D.5 New York City Actions

- **New York City Department of Environmental Protection (DEP) Heating Oil Waiver, issued November 7, 2012**
  DEP suspended the low-sulfur requirement for No. 4 fuel oil under § 24-169(b)(2) of the New York City Administrative Code until January 18, 2013.
- **DEP Heating Oil Enforcement Discretion, issued December 31, 2012**
  DEP allowed users with heating oil not meeting the 0.15% sulfur requirement already in the tank before January 18, 2013, to continue using the remaining heating oil without needing to empty the tank, recognizing that doing so would not be practical.

Appendix E. After Superstorm Sandy: Energy-Related Executive and Agency Response Actions

The following list details State-level executive orders (EOs)and statewide initiatives issued after Superstorm Sandy in response to storm-related incidents impacting the State's energy resources and infrastructure. The list categorizes actions according to type.

E.1 Emergency Weather Response

- **EO No. 73, issued November 13, 2012**
  Pursuant to NYS Executive Law Section 6,[85] the governor appointed a commission to study, examine, investigate, and review the emergency preparedness and response of utilities during and after emergency weather events. The commission evaluated the performance of utilities during and after emergency weather events; the adequacy of present laws, rules, regulations, practices, and procedures concerning utilities' emergency preparedness and response; the adequacy of existing oversight and enforcement mechanisms; the structure, organization, ownership, financing, control, management, and practices of utilities as they affect emergency response and preparedness; the provision of utility services to the State under the existing legal and regulatory framework, including but not limited to the jurisdiction, responsibilities, and missions of the New York Power Authority (NYPA), Long Island Power Authority (LIPA), New York State Energy Research and Development Authority (NYSERDA), and the Public Service Commission (PSC); report and make recommendations for legislative, policy, and regulatory changes, as well as reforms in utility structure, management and practices, to best protect and serve the public's interest; and review any other matters or activities that may affect these issues.[86]
- **EO No. 103, issued June 28, 2013**
  Following Tropical Storm Andrea, the governor declared a State of Disaster Emergency in Broome, Chenango, Clinton, Delaware, Essex, Franklin, Herkimer, Madison, Montgomery, Oneida, Otsego, Tiago, Schoharie, St. Lawrence, and Warren counties. The declaration acknowledged the inadequacy of local governments in responding to the emergency. The EO activated the State Disaster Preparedness Plan and directed NYS agencies to assist affected governments in disaster response and recovery. Additionally, the EO satisfied the requirements of 49 C.F.R. § 390.23(a)(1)(A), providing relief from Federal Motor Carrier Safety Regulations Parts 390–399.[87]
- **EO No. 108, issued July 5, 2013**
  Following Tropical Storm Andrea, the governor amended EO 103 to include Niagara County in the State Disaster Emergency declaration due to severe flooding that disrupted public transportation and utility service. EO 108 directed the implementation of the State Disaster Preparedness Plan, requiring NYS agencies to take appropriate actions to protect State property and assist affected local governments in disaster response and recovery.[88]

- **New York State Climate Change Science Clearinghouse**
  NYSERDA developed this resource to provide users with immediate, interactive, and best-available Federal Emergency Management Administration (FEMA) floodplain maps. The Clearinghouse allows utilities and emergency preparedness groups to overlay maps with other data, creating a common platform for designing hazard mitigation and response plans. In consultation with the Department of State (DOS), the Department of Environmental Conservation (DEC) provides guidance on using flood-hazard maps, climate change information, and resilience design criteria as part of its Community Risk and Resilience Act guidance.[89]
- **New York Office of Temporary Disability Assistance (OTDA) Home Energy Assistance Program (HEAP)**[90]
  HEAP provides an emergency benefit to households facing heat or heat-related energy emergency that do not have resources above the established limits. The eligibility and benefits of the emergency benefit component are based on income, available resources, and the type of emergency.[91]

E.2 Electrical System Infrastructure

- **EO No. 75, issued November 14, 2012**
  The governor suspended Public Authorities Law § 1020-cc and State Finance Law Section 112 to the extent that both require the approval of contracts to conduct surveys of electrical systems in residences and buildings on Long Island. The suspension followed LIPA's undertaking of such surveys to determine whether visual evidence of flood damage from Superstorm Sandy would affect electrical equipment and whether licensed electricians or electrical inspection agency certificates would be required to restore power. The EO also suspended State Finance Law Sections 138 and 142 to the extent it prohibits the assignment of such contracts.[92]
- **NYS2100 Commission, convened November 15, 2012.**
  Recognizing the compounded
  threats of Superstorm Sandy, Hurricane Irene, and Tropical Storm Lee to the State's critical energy infrastructure and essential public services, the governor commissioned panels of experts to study the situation and make recommendations to improve the strength and resiliency of critical energy infrastructure.[93]
- **PSC Standby Tariff Policies**
  After Sandy, Irene, and Lee, combined heat and power (CHP, also known as cogeneration) ensured continued electricity in multifamily apartment buildings, hospitals, nursing homes, elementary schools, and college campuses. In 2015, the PSC began evaluating standby tariff policies to support customers seeking CHP solutions with appropriate regulations.[94]

E.3 Transportation Infrastructure Recovery

- **EO No. 99, issued January 28, 2014**
  The governor temporarily suspended Public Authorities Law Sections 1209, 1265-a, and 2879(3)(b)(ii). Sections 1209 and 1265-a authorized the executive officer or executive director of the Metropolitan Transit Authority (MTA) to approve the award of contracts without the use of sealed bits or other competitive procurement processes for repairing, reconstructing, or rehabilitating Superstorm Sandy–damaged bridges, tunnels, subway, rail lines, facilities, infrastructure, or equipment.[95]

E.4 Petroleum Shipments

- **EO No. 125, issued May 17, 2013**
  The governor directed the DEC, Department of Transportation (DOT), Division of Homeland Security and Emergency Services (DHSES), Department of Health (DOH), and NYSERDA to strengthen the State's oversight of shipments of petroleum products. The EO requires these agencies to collaborate to upgrade tanker car and rail line safety, assess federal agency needs and risks, and pre-deploy appropriate spill response equipment. The agencies submitted a report summarizing the State's existing capacity to prevent and respond to accidents involving the transportation of crude oil and other petroleum products by rail, ship, and barge.[96]

E.5 Public Information and Preparedness

- **Citizen Preparedness Corps**
  In coordination with the New York State Office of Emergency Management (State OEM), the governor assigned the New York National Guard to train NYS residents on disaster preparedness, appropriate responses, and rapid recovery. The training emphasizes which organizations can provide additional support, how to register for NY-Alert (the statewide emergency alert system), and how to be aware of notifications from sources such as the Emergency Alert System (EAS). The training also instructs residents on developing family emergency plans and stocking up on emergency supplies.[97]

Appendix F. After Superstorm Sandy: Legislative Enactments

The following list details legislation the State enacted after Superstorm Sandy to further equip the State to respond to weather-related energy emergencies.[98] Some codes and statutes directly affect emergency preparedness. Others aim to strengthen the State's existing energy statutory and regulatory scheme to withstand climate change and future extreme weather events that might trigger an energy emergency. The list supplements the legislative mandates requiring agency action in energy emergencies (see section 1.2).

F.1 Long Island Power Authority Reform Act

The Long Island Power Authority (LIPA) Reform Act restructured the LIPA and implemented a new model focused on customer service, emergency preparedness, and improved performance.[99] The Act amends Section 3 of the NY Public Service Law to require the LIPA to prepare an emergency response plan pursuant to the Act's guidelines. It empowers the Long Island office of DPS to review the LIPA's emergency response plan annually in accordance with established requirements; requires that the emergency response plan consider written comments (which are made publicly available alongside transcripts of public hearings); and ensures that emergency response plans are filed with copies of all written mutual assistance agreements among utilities.[100]

F.2 Community Risk and Resiliency Act

The Community Risk and Resiliency Act (CRRA)[101] amends the Environmental Conservation Law, NY Agriculture and Markets Law, and Public Health Law to ensure that State funds, facility-siting regulations, and permits consider the effects of climate risk and extreme weather events. The CRRA includes five major provisions relevant to strengthening the State's energy scheme and emergency response: NY Agriculture and Markets Law, and Public Health Law to ensure that State funds, facility-siting regulations, and permits consider the effects of climate risk and extreme weather events. The CRRA includes five major provisions relevant to strengthening the State's energy scheme and emergency response:

- Sea level rise projections: The CRRA adds a new section that requires the Department of Environmental Conservation (DEC) to adopt science-based sea level rise projections into regulations.

- Facility siting, permitting, and funding: The CRRA requires that applicants for energy-relevant siting and permit programs demonstrate consideration of future physical climate risks. It requires that applicants for the following energy-relevant siting and permit programs demonstrate consideration of future physical climate risks:
    - Permitting programs.
    - Oil and natural gas wells.[102]
    - Major liquefied natural gas and liquefied propane facilities.[103]
    - Facility-siting programs.
    - Petroleum bulk storage.[104]
- Smart growth public infrastructure criteria. The CRRA amends the Environmental Conservation Act to include risk mitigation due to sea level rise, storm water surge, and flooding to the list of smart-growth criteria. In consultation with the Department of State (DOS), the DEC must develop guidance for implementing the CRRA. Implementation is the responsibility of each affected infrastructure agency.
- Model local laws: The CRRA requires DOS, in consultation with DEC, to develop model local laws that consider future risks associated with sea level rise, storm surge, and flooding.
- Natural resilience measure guidelines: The CRRA requires DEC, in consultation with DOS, to develop guidance on the use of natural resources and natural processes to enhance resiliency.

Appendix G. State Agency and NYISO Winter Coordination Protocol

STATE AGENCY AND NYISO WINTER COORDINATION PROTOCOL
(Effective October 16, 2024)

I. Purpose of the Protocol

1. The Department of Public Service, (DPS), the Department of Environmental Conservation (DEC), the New York State Energy Research and Development Authority (NYSERDA), and the Department of Transportation (DOT) (collectively, the State Agencies) and the New York Independent System Operator (NYISO) have agreed to establish this State Agency/NYISO coordination protocol to be used under circumstances where electric generation unit fuel supply may be at risk, thereby posing risks to electric system reliability.

2. For example only, this protocol may be initiated for any of the following reasons:

(a) In discussions with a particular generator it becomes apparent that i) The generator is low on fuel supply and demonstrates an inability to procure new supplies in a timely manner; ii) The unavailability of fuel to the generator could adversely affect electric system reliability; and iii) An exception to sulfur limits in fuel pursuant to 6 NYCRR 225-1.3 might be needed;

(b) In discussions with the generators in general it is apparent that fuel supply or transportation availability issues are developing and there is a potential need for State Agency action that would assist in alleviating the fuel supply availability or transportation issues; or

(c) Weather conditions or forecasts pose risks to fuel availability.

3. Actual response actions are subject to change in order to address variable conditions of emergency situations.

II. Information Sharing

1. During the winter period (December 1st through February 28th), the NYISO shall distribute to State Agencies a fuel availability dashboard on the business day following the initiation of a Cold Weather Fuel Survey with generators if conditions are not normal (green). If the dashboard shows cautionary (yellow) or serious (red) fuel availability issues, the NYISO will initiate a conference call on the business day following distribution of the dashboard to review and assess current information related to predicted electric demand, weather forecasts, and generator fuel supplies, which may include aggregated information on inventories, and a general assessment of any issues generators are beginning to

experience in securing resupply volumes and/or with fuel distribution difficulties. The format for the fuel availability dashboard is set forth at Attachment I.

2. Any of the State Agencies or the NYISO may initiate a conference call at any other time as needed whenever there is a concern on developing fuel supply or distribution issues that could affect electric system reliability.

III. Exception to Sulfur in Fuel – Exception Process

1. DEC will notify the other State Agencies and the NYISO of any requests submitted pursuant to 6 NYCRR 225-1.3 for an exception to sulfur in fuel requirements. DEC will require the generator/applicant to provide the following information:

   (a) The start and end dates of the request.
   (b) The quantity of non-compliant fuel to be used.
   (c) The source and characteristics of the non-compliant fuel.
   (d) A brief discussion of the typical resupply process and name of companies commonly utilized to provide resupply.
   (e) A description of the near-term disruption to the traditional resupply source(s). For example, is there a general unavailability of correct specification fuel by the supplier; is there an issue with fuel delivery; or is there another type of issue preventing the resupply chain from delivering correct specification fuel to the facility?
   (f) An explanation of attempts undertaken by the generator/applicant and/or its traditional fuel supply source to secure alternative sources of correct specification fuel. Such explanation may include information on specific alternate fuel company outreach and any learned reason for unavailability of fuel, either in the local market supply industry generally or any specific issues concerning supply or distribution of fuel.
   (g) A description of the specification characteristics of the proposed alternative fuel that is available and the geographic source of the fuel. In addition, information on whether supply transport has been arranged and assured should also be indicated.

2. DEC will share the information provided by the generator/applicant with the other State Agencies and the NYISO, through the contacts identified in this Protocol, as soon as it is available.

   DEC will also promptly initiate a conference call to review the request with the other State Agencies and the NYISO.

3. NYISO will provide additional information to NYSERDA and the other State Agencies concerning the need for the generator/applicant to run, predicted demand, weather and other constraints, and fuel availability.

4. NYSERDA will investigate conditions in the fuel industry, both generally and in the local market, and provide information to the State Agencies and NYISO on such conditions and/or any learned activities undertaken to alleviate such conditions.

5. Upon demonstration from the above information that, despite the generator/applicant's best efforts to procure resupply, there exists an inability to supply correct specification fuel during a time period when the generator/applicant facility is needed to meet reliability as determined by the NYISO, NYSERDA shall certify that there is a fuel shortage impacting that generator/applicant for the expected period of the need. NYSERDA shall communicate its determination to the other State Agencies and the NYISO within 3 hours of receipt of the information described in paragraph 3 above.

6. Nothing in this protocol shall prevent the review of the affirmations the generator provides, or the solicitation of any other information DEC deems necessary to process the request.

IV. Fuel Transportation Issues

1. If any of the State Agencies or the NYISO determines that a ground transportation issue is affecting or may affect the availability of any fuel needed to operate electric generation, the parties to this Protocol shall promptly consult and consider whether any waivers of hours-of-service regulation may be needed. In the event any particular generator is needed for reliability and cannot get fuel due to such regulations, DOT shall provide the necessary waiver and inform the other parties to this Protocol of its action.

Endnotes

[1] The CEMP consists of three main volumes, one of which is the Response and Short-Term Recovery portion of the plan. It-includes numerous functional annexes to address various response activities, with each annex bringing together the collective resources of different response disciplines.

[2] New York Public Authorities Law § 1854(15) (2014).

[3] New York Energy Law § 5-117(4) (1976).

[4] New York Energy Law § 5-117(1)(a) (1976).

[5] New York Energy Law § 5-117(1)(b) (1976).

[6] New York Energy Law § 5-117(1)(c) (1976).

[7] New York Energy Law, Article 10 (1979); 9 NYCRR § 7900.1 (1990). This authority was also transferred to New York State Energy Research and Development Authority (NYSERDA) in 1995.

[8] 9 NYCRR §7900.2(a).

[9] New York Energy Law § 10-105(1) (1972).

[10] A prime supplier is any individual, trustee, agency, partnership, association, corporation, company, municipality, political subdivision, or other legal entity that makes the first sale of any liquid fossil fuel into the New York State distribution system for use in the State. New York Energy Law § 10-103(4).

[11] New York Executive Law § 713.

[12] New York Agriculture and Markets Law § 192-h.

[13] The Downstate Strategic Gasoline Reserve (SGR) holds approximately 2.3 million gallons of gasoline. The Upstate Strategic Fuels Reserve (SFR) holds approximately 2.8 million gallons, evenly divided between gasoline and diesel fuel at six separate terminals located across the Upstate area.

[14] For more information on the Fuel NY Initiative, visit the Emergency section of the NYS Agriculture and Markets (AGM) website.

[15] See, e.g., New York Public Service Law §§ 65, 66 (2014).

[16] For more information see the Department of Public Service (DPS) website, http//www.dps.ny.gov.

[17] 16 NYCRR § Part 105 for electric utility emergency plan criteria.

[18] Utility emergency plans must be updated annually and include a requirement that utilities conduct emergency and storm-related drills, or training exercises, to test the adequacy and effectiveness of its personnel who are assigned service restoration responsibilities. 16 NYCRR § 105.3(b) (2011).

[19] Table 1 provides a detailed list of NYS agencies involved in energy emergency response, along with their responsibilities. Figure 1 illustrates the lines of communication and organization structure.

[20] The NYS Department of Transportation (DOT), the New York State Thruway Authority (NYSTA), and local law enforcement should be included in these consultations because the State owns most major highway facilities.

[21] In response to the Organization of the Petroleum Exporting Countries (OPEC) oil embargo, the Emergency Fuel Office (predecessor to the State Energy Office) established a network of city and county Energy Coordinators in 1974 to provide local-level energy information.

[22] Depending on the County's emergency planning and response structure the local Energy Coordinator role may be part of the County Emergency Manager's responsibilities.

[23] Emergency Support Function #12 (ESF #12) outlines the roles and responsibilities of federal departments for energy emergency response.

[24] For more information, see the U.S. Department of Energy (DOE) website, www.doe.gov.

[25] State governors can apply to the U.S. Environmental Protection Agency (EPA) for a temporary suspension of the State's Clean Air Act (CAA) implementation plan to adjust normal refinery operations or authorize the importation or use of nonconforming, higher-sulfur petroleum products or coal, which may be more readily available during an emergency than conforming fuels. See www.epa.gov.

[26] The Federal Energy Regulatory Commission (FERC) regulates the interstate transportation and wholesale sales of natural gas and electricity. FERC can implement programs to curtail natural gas sales or shed load to low-priority customers. If the president declares a natural gas emergency FERC may prohibit certain industrial uses of natural gas or order the allocation of available supplies. Emergency measures for electricity remain limited to authorizing the temporary connection or use of surplus transmission or generating facilities. See www.ferc.gov

[27] The Federal Emergency Management Administration (FEMA) leads coordination efforts for civilian emergency and disaster responses. See www.fema.gov.

[28] For more information, visit the DOT website, www.dot.gov/

[29] The Office of Pipeline Safety (OPS), part of the DOT's Pipeline and Hazardous Materials Safety Administration (PHMSA), enforces rules for inter- and intra-state pipelines. Additionally, State regulations for natural gas generally reinforce and augment the federal requirements.

[30] In the event that the State requires long distance waterborne fuel delivery (usually heating oil or motor gasoline) aboard an international shipping carrier not registered in the U.S., officials must seek a waiver from the federal Jones Act through the Federal Maritime Administration (FMA). DOE can assist with the waiver.

[31] If the State receives a request to waive highway fuel transport driver hours in order to expedite delivery during a shortage, officials may need to contact the Federal Motor Carrier Safety Administration (FMCSA).

[32] During a terrorist attack, natural disaster, or other large-scale emergency, the Department of Homeland Security (DHS), assumes primary responsibility for ensuring that emergency response professionals are prepared to act. See www.dhs.gov.

[33] If a potential energy emergency threatens mission readiness or ongoing operations, special authorities exist to ensure military energy priorities are met. See https://www.defense.gov.

[34] The US Coast Guard, a division of DHS, oversees Maritime Homeland Security. The Coast Guard base for the New York Harbor area, Sector New York, operates on Staten Island. For more information specific to the New York Harbor area, visit https://www.atlanticarea.uscg.mil/Our-Organization/District-1/District-Units/Sector-New-York/. The following Coast Guard sectors also serve New York Metropolitan Area:• Sector Buffalo: Visit https://www.atlanticarea.uscg.mil/Our-Organization/District-9/Ninth- District-Units/Sector-Buffalo/• Sector Long Island Sound: https://www.atlanticarea.uscg.mil/Our- Organization/District-1/District-Units/Sector-Long-Island-Sound/• Station Burlington (Lake Champlain), reporting to Sector Northern New England: Visit https://www.atlanticarea.uscg.mil/Our-Organization/District- 1/District-Units/Sector-Northern-New-England/. These websites also provide sector coverage maps.

[35] This document (dated June 2009) is available on the National Association of State Energy Officials (NASEO) website. For more information, visit http://www.naseo.org/eaguidelines

[36] For details on the DOE's Strategic Petroleum Reserve (SPR), see http://energy.gov/fe/services/petroleum-reserves/strategic-petroleum-reserve.

[37] Energy Policy and Conservation Act, 42 U.S.C. § 6201 (2000).

[38] U.S. Department of Energy (DOE),Northeast Home Heating Oil Reserve; seehttp://energy.gov/fe/services/petroleum-reserves/heating-oil-reserve.

[39] Section 202(c)(1) of the Federal Power Act states, "During the continuance of any war in which the United States is engaged, or whenever the Commission determines that an energy emergency exists by reason of a sudden increase in the demand for electric energy, or a storage of electric energy or of facilities for the generation and transmission of electric energy… the Commission shall have the authority, either upon its own motion or upon complaint… to require by order such temporary conditions of facilities and such generation, delivery, interchange, or transmission of electric energy as in its judgment will best meet the emergency and serve the public interest." 16 U.S.C. § 824(c)(1); for more information, visit http://energy.gov/oe/does-use-federal-power-act-emergency- authority for more information.

[40] "A temporary emergency suspension shall be issued to a source only if the governor of such state finds that (A) there exists in the vicinity of such source a temporary energy emergency involving high levels of unemployment or loss of necessary energy supplies for residential dwellings; and (B) such unemployment or loss can be totally or partially alleviated by such emergency suspension." 42 U.S.C.S. § 7410(f)(1)-(2).

[41] 42 USC Ch. 92: Powerplant and Industrial Fuel Use from Title 42—The Public Health and Welfare https://uscode.house.gov/view.xhtml?path=/prelim@title42/chapter92&edition=prelim

[42] NYSERDA Weekly Energy and Fuel Markets Report, https://www.nyserda.ny.gov/About/Publications/Energy-Analysis-Technical-Reports-and-Studies/Weekly-Energy-and-Fuels-Markets-Reports

[43] NYSERDA Weekly Heating Fuels Dashboard, https://www.nyserda.ny.gov/About/Publications/Energy-Analysis-Technical-Reports-and-Studies/Weekly-Heating-Fuels-Dashboard

[44] Patterns and Trends New York State Energy Profiles: 2008-2022, NYSERDA, December 2024. https://www.nyserda.ny.gov/About/Publications/Energy-Analysis-Reports-and-Studies/Patterns-and-Trends

[45] Visit the Transportation Fuels Dashboard at: https://www.nyserda.ny.gov/About/Publications/Energy-Analysis-Technical-Reports-and-Studies/Weekly-Transportation-Fuels-Dashboard

[46] Patterns and Trends New York State Energy Profiles: 2008–2022, NYSERDA, December 2024. https://www.nyserda.ny.gov/About/Publications/Energy-Analysis-Reports-and-Studies/Patterns-and-Trends

[47] Patterns and Trends New York State Energy Profiles: 2008–2022, NYSERDA, December 2024. https://www.nyserda.ny.gov/About/Publications/Energy-Analysis-Reports-and-Studies/Patterns-and-Trends

[48] Patterns and Trends New York State Energy Profiles: 2008–2022, NYSERDA, December 2024. https://www.nyserda.ny.gov/About/Publications/Energy-Analysis-Reports-and-Studies/Patterns-and-Trends

[49] U.S. Energy Information Administration (EIA) Prime Supplier Sales Volumes https://www.eia.gov/dnav/pet/pet_cons_prim_dcu_nus_a.htm

[50] U.S. Energy Information Administration (EIA) Prime Supplier Sales Volumes https://www.eia.gov/dnav/pet/pet_cons_prim_dcu_nus_a.htm

[51] Patterns and Trends New York State Energy Profiles: 2008-2022, NYSERDA, December 2024. https://www.nyserda.ny.gov/About/Publications/Energy-Analysis-Reports-and-Studies/Patterns-and-Trends

[52] U.S. Energy Information Administration (EIA), Electricity Data Browser, Net generation for all sectors, New York, All fuels (utility-scale), Coal, Small-scale solar photovoltaic, Annual, 2001–2021.

[53] EvaluateNY, January 2025 https://atlaspolicy.com/evaluateny/

[54] For more information, visit http://www.eia.gov/naturalgas/data. cfm.

[55] For more information, visit http://www.eia.gov/naturalgas/data.cfm for more information. The breakdown by sector for 2023 is 4.6 million residential customers and 0.4 million commercial, industrial, power generation, and transportation customers.

[56] These local distribution companies (LDCs) include Central Hudson Gas & Electric Corporation (CHG&E), Consolidated Edison Company of New York, Inc. (Con Edison), Orange & Rockland Utilities (O&R)O&R), Corning Natural Gas Company (Corning), National Grid, New York State Electric and Gas Corporation (NYSE&G), Rochester Gas & Electric (RG&E), National Fuel Gas Distribution Company (NFGD), and St. Lawrence Gas Company (St. Lawrence).

[57] These pipelines are Algonquin Gas Transmission Co. (AGT), Columbia Gas Transmission Corp. (Columbia), Dominion Transmission, Inc. (DTI), Empire State Pipeline Co. (Empire), Iroquois Gas Transmission System (IGTS), Millennium Pipeline, National Fuel Gas Supply Corp. (NFGS), North Country Pipeline, Tennessee Gas Pipeline Co. (Tennessee), Texas Eastern Pipeline Co. (TETCO), Transcontinental Gas Pipeline Corp. (TRANSCO), and TransCanada Pipelines, Ltd. (TransCanada).

[58] Patterns and Trends New York State Energy Profiles: 2008-2022, NYSERDA, December 2024. https://www.nyserda.ny.gov/About/Publications/Energy-Analysis-Reports-and-Studies/Patterns-and-Trends

[59] This measure involves the retail sales of motor fuel, tracked based on vehicle license plate numbers and letters.

[60] U.S. Department of Energy (DOE) Northeast Home Heating Oil Reserve. http://energy.gov/fe/services/petroleum-reserves/heating-oil-reserve

[61] The Downstate New York SGR holds approximately 2.3 million gallons of gasoline. The Upstate New York SFR, located at six terminals, holds approximately 2.8 million gallons, evenly divided between gasoline and diesel.

[62] Residential facilities without alternative fuel sources are classified as priority one.

[63] For a more detailed discussion of NYSERDA's response actions for petroleum and coal supply emergencies, see sections 5.1 and 5.2. For a discussion of the DPS response actions for natural gas emergencies, see section 5.6.

[64] For a more detailed discussion of NYSERDA's response actions for petroleum and coal supply emergencies, see sections 5.1 and 5.2.

[65] The Peak-Load Reduction Program implements those provisions of Executive Order (EO) No.111 related to load reduction during peak demand periods at all State agencies and affiliated entities. The program will be activated within 60 minutes of DPS staff issuing a Load Reduction Order directing State agencies to implement their peak-load reduction plans and procedures. This program applies to all agencies and branches of State government, public benefit corporations, public authorities, community colleges, and leased spaces as listed in Appendix B of the NYSERDA Guidelines implementing EO No. 111, titled "Green and Clean."

[66] That is, State the appropriate safety precautions for electrical hazards, including plans to promptly secure downed wires, procedures for deploying company and mutual aid crews to work assignment areas, and provisions for identifying and securing additional supplies and equipment during emergencies.

[67] This is limited to providing power, which does not include fuel provision.

[68] PSL Section 66(21).

[69] The Northeast Gas Association (NGA) is a trade association comprising the 32 LDCs that provide natural gas to customers in Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont.

[70] Large customers and nonessential customers, sometimes referred to as nonhuman needs customers, are defined by individual gas utilities in their respective tariffs.

[71] In July 2016, the Columbia Center on Global Energy Policy published recommendations to improve communications and situational awareness between the public and private sectors for effective response to fuel emergencies. Situational awareness involves quick, reliable, and efficient communication of information critical to understanding the fuel supply system in real-time and restoring its operations during emergencies. For more information, visit http://energypolicy.columbia.edu/sites/default/files/energy/CGEP_Tri_State_Situational_Awareness_July%2020 16.pdf for the final report and http://energypolicy.columbia.edu/publications/report/improving- regional-situational-awareness-during-fuel-emergencies-new-york-tri-state-areas-lessons

[72] American Petroleum Institute, Oil and Natural Gas Industry Preparedness Handbook, October 2013.

[73] American Petroleum Institute, Oil and Natural Gas Industry Preparedness Handbook, October 2013.

[74] U.S. Environmental Protection Agency (EPA). Final Rule, December 2020. https://www.epa.gov/diesel-fuel-standards/final-rulemaking-streamlining-and-consolidating-existing-gasoline-and-diesel

[75] U.S. Energy Information Administration, U.S. Petroleum Product Supplied. November 2022. Visit https://www.eia.gov/dnav/pet/pet_cons_psup_dc_nus_mbbl_a.htm for more information.

[76] U.S. Energy Information Administration, New York Prime Supplier Sales Volumes. December 2022. Visit https://www.eia.gov/dnav/pet/pet_cons_prim_dcu_SNY_a.htm for more information.

[77] U.S. Energy Information Administration, Weekly Petroleum Stocks Central Atlantic Region. December 2022. Visit https://www.eia.gov/dnav/pet/pet_stoc_wstk_dcu_r1y_w.htm for more information.

[78] For information, visit NASEO's Guidance for States on Relief from Federal Motor Carrier Safety Regulations in an Energy Emergency, November 2014, http://www.naseo.org/data/sites/1/documents/publications/FMCSA%20Regulations%20Relief%20Guidance%2011% 2003%2020141.pdf

[79] Department of the Treasury, Excise Taxes (Including Fuel Tax Credits and Refunds), Cat. No. 150141 (Revised January 2016).

[80] Codified at 9 NYCRR § 8.47 (2012).

[81] Codified at 9 NYCRR § 8.49 (2012).

[82] Codified at 9 NYCRR § 8.54 (2012).

[83] MTA Rockaways Bridge Suspension. https://www.governor.ny.gov/news/governor-cuomo-announces-suspension-tolls-mta- rockaways-bridges

[84] For information, visit the EPA's Hurricane Sandy Fuel Waiver, http://www2.epa.gov/enforcement/multistate-fuel-waiver-hurricane-sandy-october-31 2012

[85] New York Executive Law § 6 authorizes the governor to examine and investigate the management and affairs of any State department, board, bureau, or commission at any time.

[86] See EO No. 73: Designation Pursuant to Section 6 of the Executive Law, Visit https://www.governor.ny.gov/news/no-73-designation-pursuant-section-6-executive-law for more information.

[87] For more information, see EO No. 103, Declaring a Disaster in the Counties of Broome, Chenango, Clinton, Delaware, Essex, Franklin, Herkimer, Madison, Montgomery, Oneida, Otsego, Tioga, Schoharie, St. Lawrence, and Warren, at https://www.governor.ny.gov/news/no-103-declaring-disaster-counties-broome-chenango-clinton-delaware-essex-franklin-herkimer for more information.

[88] For more information, see EO No. 108, Directing a Disaster in the County of Niagara, at https://www.governor.ny.gov/news/no-108- declaring-disaster-county-niagara for more information.

[89] For more information on the Climate Change Science Clearinghouse, visit https://www.nyclimatescience.org/ For the DEC's Community Risk and Resiliency Act implementing guidance, visit http://www.dec.ny.gov/docs/administration_pdf/climbkgncrra.pdf.

[90] The Home Energy Assistance Program (HEAP) is a federally funded program that helps low-income New Yorkers cover home heating costs. For more information on the federal program, visit http://www.acf.hhs.gov/ocs/programs/liheap. To learn more about HEAP, visit https://otda.ny.gov/programs/heap/.

[91] For more information, visit https://otda.ny.gov/programs/heap/program.asp#emergency.

[92] EO 75, Temporary Suspension of Provisions Relating to Contracts to Conduct Surveys of Electrical Systems in Residences and Buildings on Long Island. For more information, visit https://www.governor.ny.gov/news/no-75-temporary-suspension- provisions-relating-contracts-conduct-surveys-electrical-systems

[93] The NYS 2100 Commission published a report titled, Recommendations to Improve the Strength and Resilience of the Empire State's Infrastructure. For more information, visit http://www.governor.ny.gov/sites/governor.ny.gov/files/archive/assets/documents/NYS2100.pdf

[94] The PSC's ongoing standby policy assessment was highlighted in the 2015 State Energy Plan and the PSC Order Continuing and Expanding the Standby Rate Exemption (Case Nos. 09-E-0109, 14-E-0488, effective April 20, 2015). For more information, visit https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&cad=rja&uact=8&ved=0ahUKEwiusrCL2cPO AhXFESwKHeEvDUEQFggiMAE&url=http%3A%2F%2F documents.dps.ny.gov%2Fpublic%2FCommon%2FViewDoc.a spx%3FDocRefId%3D%257BBC90F4A6-4156-4E1A-A936-4E984EB57147%257D&usg=AFQjCNF9P8K- xGUwnVAFWWDmfZACY6ediw..

[95] For more information, see EO No. 99, Temporary Suspension of Provisions Relating to Transportation Infrastructure Recovery for the State Disaster Emergency, at https://www.governor.ny.gov/news/no-99-temporary-suspension-provisions-relating- transportation-infrastructure-recovery-state.

[96] For more information, see EO 125, Directing DEC, DOT, DHSES, DOH, and NYSERDA to Strengthen the State's Oversight of Shipments of Petroleum Products, at https://www.governor.ny.gov/news/no-125-directing-dec-dot-dhses-doh-and-nyserda- strengthen-states-oversight-shipments-petroleum.

[97] For more information on Prepare NY, visit http://www.dhses.ny.gov/aware-prepare/nysprepare/ and http://prepare.ny.gov/.

[98] Appendix E lists the EOs and initiatives from the years following Superstorm Sandy through 2016.

[99] Enacted on July 20, 2013, the LIPA Reform Act established a Long Island branch of the DPS to oversee regulatory oversight and review electric service operations and customer service practices on Long Island. For more information, visit http://www3.dps.ny.gov/W/PSCWeb.nsf/All/CF9AE5BB7330DB3F85257F5600717B7D?OpenDocument and https://www.governor.ny.gov/news/governor-cuomo-signs-legislation-restructuring-utility-operations-long-island.

[100] For more information on Long Island Power Authority, visit http://www.lipower.org/pdfs/company/papers/LIPAPSEG/LIPABillS5844.pdf.

[101] Enacted on September 22, 2014, this Act's provisions apply to all applications and permits no later than January 1, 2017. For more information, visit http://www.dec.ny.gov/energy/104113.html.

[102] CRRA § 14-a.

[103] CRRA § 15.

[104] CRRA § 9.

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